Indiana University of Pennsylvania
Knowledge Repository @ IUP

Theses and Dissertations (All)

12-22-2009

Problem Solving And The Public School Principal

Jon C. Landis
Indiana University of Pennsylvania

Follow this and additional works at: http://knowledge.library.iup.edu/etd

PROBLEM SOLVING AND THE PUBLIC SCHOOL PRINCIPAL

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the

Degree of Doctor of Philosophy

Jon C. Landis

Indiana University of Pennsylvania

December 2009

Indiana University of Pennsylvania
The School of Graduate Studies and Research
Department of Sociology

We hereby approve the dissertation of

Jon C. Landis

Candidate for the degree of Doctor of Philosophy

___October 21, 2009___   ___Signature on File_____
                                Robert B. Heasley, Ph.D.
                                Professor of Sociology, Advisor

___October 21, 2009___   ___Signature on File_____
                                Dr. John A. Anderson, Ph.D.
                                Professor of Sociology

___October 21, 2009___   ___Signature on File_____
                                Dr. Cheryl T. Desmond, Ph.D.
                                Professor of Education

ACCEPTED

___Signature on File_____   _____

Timothy P. Mack, Ph.D.
Dean
The School of Graduate Studies and Research

Title: Problem Solving And The Public School Principal

Author: Jon C. Landis

Dissertation Chair: Robert Heasley, Ph.D.

Dissertation Committee Members: John Anderson, Ph.D.
    Cheryl Desmond, Ph.D.

This qualitative research explores the problem-solving process of public school principals. Drawing on in-depth interviews with successful principals, three distinct elements influencing the process were discovered. First, principals often engage in a practice the author identifies as policy shielding, where established policy or law is used as a barrier from having to engage in potentially difficult interpersonal problem solving. Second, this research identifies ethical inclusion as the principal's consideration of the ethical, cultural, and emotional state of persons involved in the problem. Delocalized empathy, the third element identified through this research, identifies the process in which a principal may expand the framing of a problem through the inclusion of the emotional or other needs of persons beyond those immediately involved.

While each of these findings is distinct, there is a progressive relationship among them. When principals avoid policy shielding, the opportunity for creative problem solving increases. The subsequent problem solving is strongly influenced by the principal's ability to be ethically inclusive of other individual's cultural and contextual norms. Finally, the principal's ethical inclusivity allows for the delocalization of empathy to anticipate emotional or other personal reaction from others directly and indirectly involved in the decision.

The creative problem-solving process requires additional time and resources and principals in this study who engaged in creative problem solving had mitigated descriptions of their job satisfaction when compared to those who did not. The persons interviewed provide evidence that principals struggle with balancing the efficiency of deciding by policy alone and expending personal time and energy to engage in problem solving. Because principals make decisions and solve problems that affect the lives of many individuals, improving the problem-solving process is of paramount importance. It is recommended that training in the process of creative problem solving be included into the curricula of principal certification programs.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

List of Figures

CHAPTER 1

INTRODUCTION TO THE PROBLEM

This research explores how public school principals approach problem solving.

Specifically, this research asks: What factors describe the problem-solving process of

public school principals? The public school principal is essentially a middle-level

manager who is provided a level of state-sanctioned authority to make decisions about

how federal, state, and local polices are applied to situations in the context of school

stakeholders. How these decisions are rendered and the parameters influencing this

process are the focus of this investigation.

Definition of Terms

Specific operational definitions related to the investigation are covered in chapter

three. However, it is important to define some of the terms associated with this process so

that a clear understanding of the problem can be provided here. There are semantic and

functional differences in the terms, "decision making" and, "problem solving" throughout

the literature. In common literature and even in research where decision making or

problem solving is of secondary importance, the terms are used interchangeably. The

distinction is made most clear in research investigating aspects of thinking or

psychological reasoning such as Maier and Solem's (1962) exploration of how choice

situations can be developed into creative problem solving opportunities or Solem's later

work (1992) that explores the relationship between decision making and problem solving

in management. For the purpose of this investigation, Maier and Solem's definitions are

used as they are very similar to most research devoted specifically to decision making

and problem solving. Decision making is the act of selection from available courses of

action. Problem solving is the generation of those potential options. Problem solving is a step that occurs before the actual decision is made, although this study shows that problem solving is not a prerequisite for decision making. Often a principal will make a decision with only the presented facts under his or her consideration. It is the process of the problem-solving process, or lack thereof, that this study seeks to examine.

For the purpose of this study, "principal" refers to the certified leader of a publicly funded school. It is not uncommon for this school leadership position to be assisted by additional personnel including an assistant principal or a dean of students, but these positions are not specifically addressed in this investigation. It must be noted that some literature, particularly studies involving private schools or schools from countries other than the United States, refer to the primary leadership position of a school as a "headmaster." As this study is limited to public institutions within a small geographic portion of the United States, the term "principal" is used when referring to the primary leader of any individual school building.

<div align="center">Foundation for the Study</div>

The impetus for this investigation begins with Arthur Levine's investigation into the current state of educational leadership. At the time of his study, Levine was the president of Columbia's Teacher College. He led a team of educational researches on a four-year examination of the American education system. In 2005, he published his findings regarding the effectiveness of the nation's principal certification programs. With the support of the Annenberg, Ford, Kauffman, and Wallace foundations, Levine's publication is a detailed examination of the principal preparation process representing 25 programs, 2000 faculty, 5000 alumni, and 800 principals from a national sample. The

study concludes that the current model for the preparation of school leaders is "dead" (Levine, 2005). According to Levine, the historical inertia of bureaucracy coupled with the rapidly changing needs of modern society has rendered principal licensure as little more than "pay for certification programs." He finds these programs as being nothing more than "cash cows for colleges that use irrelevant curriculum to instruct low-quality applicants" utilizing "weak faculty" through "inadequate clinical instruction" (2005). The findings state that nothing short of a complete overhaul of the certification program is needed, along with the elimination of the Educational Doctorate and the inclusion of intensive, clinical experiences designed to foster the necessary experiences needed to be an effective leader. He proposes that programs must be improved or closed. Levine states, "The program for aspirants to school leadership positions should be the equivalent of an M.B.A [Masters in Business Administration]. It might be called an M.E.A., a masters of educational administration." Levine contends that school administrators should be trained similar to those in an M.B.A. program because the nature of the job is managing people, solving problems, and forging direction. These elements are very similar to managing a business.

While there are certainly differences between a school and a business, it is important to understand exactly what Levine is calling for in his report. In the business world, sub-standard materials are discarded and product lines are changed and discontinued. As schools are working with human capital, these processes for the management of product do not apply. However, the principal of a school is charged with the coordination of people for a common goal. The principal must manage fiscal resources under the auspices of local, state, and federal demands. There are standards to

3

be met, community interests to be appeased, and stakeholders to be placated. Simply put, the management of a school is not unlike the management of a business with regard to interpersonal action. Levine is not making an attempt to equate "student" with "product" but he proposes that the similarities in personnel and resource management are evident. It then becomes necessary to understand how effective MBA programs are preparing their candidates.

MBA Programs and Problem Solving

One area of recent MBA reform has centered upon the formalized instruction of problem solving. The Journal of Management Education released a study examining the history of change in the MBA program (Latham, Latham, & Whyte, 2004). The authors identify two initial waves of reform. The first occurred in the 1960's with a system-wide intention to improve professionalism across the MBA programs. The second occurred in the 1990's with the globalization of the economy as MBA programs had to dramatically expand and redefine their curriculum to address distinctly new international factors and opportunities. The authors argue that we are currently involved in a third wave of reform that is:

> …aimed at fostering the capacity of MBA students to integrate various functional perspectives to meet the complex business challenges of the 21st century. We refer to this skill as integrative thinking and define it as the capacity to take a cross-functional, multidisciplinary approach to the solution of unstructured business problems (Latham et al., 2004).

Integrative thinking is a purposeful form of creative problem solving developed by Roger Martin, the Dean of the Rotman School of Business (Martin & Austen, 1999). According to Latham, the integrative thinking model or similar approaches involving deliberate instruction in problem solving has been increasingly integrated into MBA programs

throughout the United States. The programs that prepare business leaders must match the training provided with the predicted demands of business leadership. Before considering the application of formalized problem solving instruction to the principal preparation process, it must be established if the role of the principal involves significant opportunity for decision making and problem solving.

Problem Solving and the Principal

Educational leadership at the principal level is essentially middle-level management as classified by the United States Bureau of Labor Statistics (BLS, 2007). As described by Webb (2005) in his *History of American Education,* teachers are responsible for the direct education of the students; local, state, and federal demands generate expectations for that education; and principals coordinate the process. For example, in the state of Pennsylvania, the principal certification process grants the holder the right to make decisions regarding student discipline, student promotion, and teacher job performance (Pennsylvania Department of Education, 1999). Nearly all states require that public school principals have some educational experience as a teacher before entering the profession (BLS, 2007) but there is a drastic change in the level and type of responsibility from the role of teacher to principal (Winter, 2001).

Winter surveyed 251 teachers who held principal certification but had not pursued a job as principal. The participants were interviewed regarding their original intentions for earning certification and their future intentions regarding career decisions. Less than 10% of the participants indicated any intent to apply for a future leadership role. By far, the most significant barrier that these teachers report is the perception of low job satisfaction because of the scope of the responsibilities associated with the position.

Work done by the Education Research Service (ERS) bears out this perception (ERS, 2001). This meta-analysis examines resent research into principal effectives, job satisfaction, and retention. The goal of the ERS investigation was to aggregate findings in these areas in an effort to ensure effective leadership in public schools by determining areas of pending crisis in advance. The report finds that principals are critical to the success of high achieving school districts but there is a severe shortage of quality candidates. Additionally, the research suggests that while principals are moderately satisfied with some of the instructional leadership opportunities of their jobs, they are very dissatisfied with managerial elements as well as job hours and compensation. These managerial elements are the daily decisions involved in coordinating the components of a school building (ERS, 2001). Decision making is a significant part of the principal's job description and therefore there is opportunity for problem solving.

Educational theorist Thomas Sergiovanni has attempted to detail the leadership role in education over the past two decades in a variety of publications. The Library of congress catalogs more than thirty books on educational leadership for Sergiovanni (Library of Congress, 2009). In fact, Sergiovanni is one of the authors identified in the Hess and Kelly study as having significant prominence across principal certification programs (Hess & Kelly 2007). According to Sergiovanni, while teachers have significant accountability in the classroom for instruction and assessment, the principal of a school is charged with the coordination of students, teacher, and community needs (2008). He describes the principal position as that of, "strategic problem solver." He argues that the principal is in a unique position in that he or she is the only one close enough to the classroom, upper administration, and the community to effectively address

the needs of all three. Interviews with principals in a previous study confirm

Sergiovanni's argument (Landis, 2007). Interviews were conducted with principals to

determine how their certification program prepared them for the job of principal as part

of a program evaluation for a university principal certification program in Pennsylvania.

One principal who was firmly into his second year of school leadership was asked to

describe his job. His response:

> Triage. I like to do everything I do really well. And I realize that even if I
> could stay up 24 hours and go seven days a week that I could not possibly
> do everything that I have to do to a level that I would be satisfied with.
> And the most difficult part for me is letting things go because I can't get to
> it and cutting corners because that's what I need to do to survive. And
> brushing people off when I don't want to but I have to continually make
> decisions on what I can just let go and where I have to put my energy and
> that's really, really tough. It still is (Landis, 2007).

This statement supports Winter's and Sergiovanni's characterization of principals. There

is evidence that principals are engaged in extensive decision making and potential

problem solving. Since problem solving is important to the job of principal, does the

current process of principal certification promote strong problem solvers into the job of

principal?

Principal Candidates

A 2001 study used nearly every certificating university and college in the country

when examining criteria for entry into principal certification programs (Creighton &

Jones, 2001). This descriptive research project collected curriculum documents as well as

all program selection requirements through publicly available sources such as university

web sites and college information resources. The researchers found an overall lack of

rigorous standards in the candidate selection process. Additionally, all universities that were part of a follow-up interview process had either stated or unstated methods for circumventing what little guidelines they had in the interest of filling rosters. In addition, successful candidates for principal certification programs demonstrate significantly lower Graduate Record Exam scores than other education graduate school candidates.

While the Creighton and Jones study (2001) does not specifically address the area of problem solving, it demonstrates that principal certification programs do not draw the most intelligent or academically astute candidates. To establish the connection between the low academic ability of principal candidates and problem solving ability, Cognitive Resource Theory (CRT) is useful. Developed in 1987 to help explain the role of stress in decision making, Cognitive Resource Theory poses a distinct linkage between intelligence, stress, and decision making (Fiedler & Garcia, 1987). According to Fielder and Garcia, optimal leadership places the highest importance upon intelligence in low stress situations and experience in high stress situations. While a principal with significant education experience may be able to make high quality decisions in crisis situations, the quality of the typical, daily decision making of principals is dependent upon raw intelligence. The low admissions requirements indicate the potential that persons with lower intelligence may find their way to certification.

Even the experience variable is in crisis with regard to principal certification. The decrease in retention discussed previously coupled with increasing demand for principals is causing states to reduce teaching experience requirements for administrative certification to as little as two years (NAESP, 2008). Since decision making is enhanced by experience in high stress environments and intelligence in low stress situations, and

both experience and intelligence are sacrificed in the admission of principal candidates, a potential problem exists for the profession. What remains to be determined is if problem solving is currently a part of the principal preparation process.

Principal Preparation

The most comprehensive examination of what is taught in principal preparation programs is Hess & Kelly's exploration undertaken in 2005 and again in 2007. The authors report that prior to this study, they could find no similar exploration of the nation's curriculum for principal certification and a search for additional research validates this claim. This study involved a stratified sampling that represented three major categories of programs including the most prolific, the most prestigious and the most typical programs across the United States. Fifty-six programs were evaluated including more than 200 course syllabi. A detailed quantitative study was undertaken that involved the coding of the 2424 weeks of instruction. Their findings show remarkable consistency between all programs across all schools. Candidates in these programs read the same authors, examine the same issues, and have similar instructional focus. School leaders across the country are having similar experiences in their certification program regardless of the geographical location, style, or prestige of the program. All programs paid limited or no attention to current leadership research findings, issues of productivity, or to working with parents. Hess and Kelly do not identify formalized problem solving as a component of the principal certification process. The study indicates that most of the curricular attention is focused on traditional leadership theory, learning theory implementation, and historical pedagogy. The authors close the study with an examination of how these curricular findings align with how currently serving principals

describe their job duties. Hess and Kelly conclude that there appears to be a severe disconnect between preparation and practicality.

<div align="center">Justification for this Study</div>

Arthur Levine (2005) challenged educational leadership programs to seek best practice from successful MBA programs and current research provides evidence that instruction in formalized problem solving is an important component in the modern MBA approach to leadership development (Latham, et. al. 2004). A comprehensive examination of current education leadership programs demonstrates that problem solving is not formally addressed. Before instruction in problem solving can be added to these courses of study, the problem-solving process of principals must be understood. There is currently no available literature specific to the exploration of this phenomenon. Therefore, this study seeks to do so.

<div align="center">Limitations and Delimitations</div>

While this research may have application to other academic institutions such as private or cyber-based schools, this investigation limits its focus to those principals who serve in public schools as defined by the United States' National Bureau of Labor Statistics (BLS, 2007). This ignores potentially valuable input from other school leaders. However, because private institutions are not bound to hire state-certificated principals, including private institution leadership complicates the applicability of these findings to certification programs. Also, the sampling pool for this research is limited to a geographic region in central Pennsylvania because of logistical and fiscal constraints upon the researcher. This means that the findings presented in this research are restricted to the input of 19 participants with limited geographic representation. While the

conclusions presented accurately reflect the experiences of the interviewees, the findings are limited to the cultural, political, and historical experiences of this small group of people from a singular geographic region.

Delimitations

The direct purpose of this study is to provide understanding of the phenomena of problem solving in the role of serving principals. Ultimately, improvement of the certification process is desired. However, this study does not seek to understand how the principal certification program influenced the problem solving ability of these participants. Also, while the transference of problem solving skills is of tangential interest to this study, the ability or best practice for doing so was not explored.

Significance of the Study

The career of principal is heading for crisis along several fronts. In addition to Levine's critique of the quality of the preparation programs, there are three additional factors that draw attention to the need for improving the problem solving ability of principals. First, the National Association of Elementary School Principals (NAESP) indicates that there is a pending mass retirement of principals nationwide (NAESP, 2008) and the United States Bureau of Labor Statistics confirms this projection (BLS 2007). This means demand for people certified to serve as principals will grow rapidly in the immediate future. Second, there is evidence beyond the Levine report that the current model of preparing principals is inadequate. Pounder's (2005) examination of retention in serving principals finds that principals are leaving the job faster than ever before and Winter's (2001) study finds that there is an abundance of certified people who do not want the job. Finally, evidence has been provided that the process of preparing school

principals is inadequate and that formalized instruction in problem solving may hold

some hope for improving this process. However, since the process of the problem solving

of principals is not currently understood, this study explores the phenomenon.

CHAPTER 2

REVIEW OF THE LITERATURE

This investigation seeks to understand what factors describe the problem solving process of principals. To comprehensively address this research question, it is important to first gain an understanding of decision-making and problem-solving theory apart from any particular context. After decision making and problem solving are explained from this psychological understanding, literature that informs the role of decision making and problem solving as it relates to the role of school principals is presented. Interview data from this investigation indicates that the daily problem solving process of principals is highly interpersonal. Therefore, literature regarding the ethics and empathetic components of interpersonal problem solving is presented to provide the language necessary to describe the findings in this investigation. Finally, there no available research that seeks to identify creative problem solving in principals was identified at the time of this study. However, a comprehensive model known as Integrative Thinking (Martin, 2007) exists that describes the problem solving process of business leaders. This model, known as integrative thinking, is presented and then adapted for the context of public school principals. The adapted model provides a lens to examine the phenomenon of the problem solving process of principals.

Decision Making Theory

Before examining the decision-making process of principals, it is helpful to explore decision making from a psychological perspective. Plous (1993) refers to decision making as a cognitive process involving the selection of alternatives. However, Plous' research into the psychology of decision making reveals that this simple

description holds a great deal of complexity. He provides an example where participants were quickly shown a series of playing cards in exposure times ranging from .1 to 1 second. The participants were asked to identify what card they saw. In this experiment, one of the cards is a black three of hearts instead of the traditional red three of hearts. It took participants four times as long to correctly identify the card that was not within the participant's prior experiential knowledge. How we decide is largely dependent upon our past experiences, biases, and perception of reality. Plous explains that the decision maker constructs the alternatives in a pending decision either actively or passively based upon her or his cognitive psychology.

Psychological considerations of decision making describe this process as framing and re-framing (Maule & Villejoubert, 2007). Framing refers to the internal representation of a problem and is inclusive of the relevant variables and their coded value. Maule and Villejoubert describe the framing element as being critical to understanding decision making because it is not simply the variables under consideration that are most relevant; it is the importance ascribed to them by the decision maker. For example, Kahneman and Tversky were able to show that the coded value of certain variables distinctly shifts the actor's decision, all else being equal (1981). In this study, the researchers presented subjects with a simple problem statement:

> Imagine the US is preparing for the outbreak of an unusual Asian disease which is expected to kill 600 people. Two alternative programs to combat the disease have been proposed. Assume that the exact scientific estimates of the consequences of the programs are as follows:
>
> A1 – Program A is adopted, 200 people will be saved
> B1 – If Program B is adopted, there is a one-third probability that 600 people will
> be saved and two-thirds probability than no one will be saved

A2 – If program A is adopted, 400 people will die

B2 – If program B is adopted there is a one third probability that nobody will die and a two thirds probability that 600 people will die

Given the alternative between A1 and B1, 72% of respondents selected A1. When given the second set of alternatives, 78% of the respondents selected B2. Each pair of alternatives represents mathematically identical outcomes. The only difference between them is in the positive or negative coding ascribed in the wording of the problem. Respondents demonstrated a strong tendency to select the positively framed variable. This means that it is not simply an awareness of relevant factual information that is important during decision making. It is equally important to evaluate any meaning or value attributed to those facts. There are financial, ethical, psychological, and many other framing research considerations. Kahneman and Tversky conclude that decision-making frames are not stone-like within the minds of the decision maker. Some elements of framing are highly malleable providing an indication for positive redress and fear for negative manipulation.

Decision Making and Interpersonal Action

Lipshitz and Mann (2005) explain that many of the decisions we make in our lives are self-focused. We decide when to get up, what to eat, and how to dress in an effort to achieve certain ends from our own means for our own goals. However, in a position of leadership, decision making is often directly regarding another individual or group of individuals. Lipshitz and Mann use a detailed case study to explore the decision-making process in a prominent leader. According to their findings, decision making in effective leadership is more complicated than self-focused decisions because the interpersonal

action increases the number of variables under consideration as well as the potential for conflict from the ascription of different values to those variables.

Interpersonal decision making involves an additional layer of complexity that is explained by the sociologist Talcott Parsons in his analysis of how society interacts and evolves (Parsons, 1951). Parsons was particularly interested in how a person's interactions with other individuals related to the society at large. He described social interaction as highly reciprocal in that societal norms have great influence over individual practice and individual actions help shape those societal norms. This reciprocity causes communities to evolve over time. Parsons was influenced greatly by the earlier work of the German sociologist Ferdinand Tönnies. Tönnies seminal work describing communities centered upon a unique dyad that described whether collections of people work from group or self-established norms (Tönnies, 1887). He coined two terms that sociologists and leadership theorists have found useful in describing the motivational intentions of individuals in society. Tönnies referred to an individual's preference to act towards group goals or norms as *gemeinschaft* and the contrast of working towards individual goals or norms as *gesellschaft.* These terms are often translated as community and society respectively. When a situation is identified as gemeinschaft, there is a sense that the individuals involved are working to improve the entire group as a means to improving one's own existence; that the needs of the community supersede those of the individual. Gemeinschaft is often used when referring to tightly knit groups such as rural families, villages, and groups such as the Amish. Tönnies' construct of gesellschaft refers to groups of individuals that work together as a society under common agreements but the ultimate motivation is individual need. Urban cities or large corporations serve as

good examples of gesellschaft environments. Parsons took these terms and developed a series of indicator continuums to put Tönnies' theories into application.

According to Parsons, one way to examine an organization or collection of individuals is to determine if they function out of social norms focused towards one of these two constructs (Parsons, 1951). Community groupings, or gemeinschaft, function primarily out of interpersonal altruism or a feeling of togetherness or personal bonding. This type of social structure can be thought of as being family-like or similar to a neighborhood. The interactions are highly interpersonal and individual. Conversely, society groupings, or gesellschaft, function from individual interest. Interactions in a gesellschaft setting work under laws or precepts to promote individual action. In short, the gemeinschaft organization puts the goals of the organization first and the gesellschaft organization lauds individual achievement.

An example of one of Parson's five continuums is the Universalist – Particularist. Universalist cultures are highly reliant upon rules while particularist cultures more closely consider individual circumstance. As an example, if an individual is at a flashing, no-crossing sign at a pedestrian crosswalk of an empty street, as a Universalist, she waits for the sign to change before crossing. The rule is important and has meaning in and of itself. Breaking the rule is like breaking a contract she has made with the community. Conversely, the Particularist considers the circumstances of the situation and simply crosses the road. The rule exists to bring order and fairness when there are competing needs. In this example, she is alone so there are no competing needs. She can cross the road and no harm is done. Parson's continuum provides a framework for describing the interpersonal motivations during decision making. This will allow for a description of the

interpersonal element when exploring the decision-making process in leaders.

Decision Making and Leadership Theory

One of the earliest descriptions of decision making specific to leadership is the

research of Tannenbaum and Schmidt (Tannenbaum & Schmidt, 1957). Tannenbaum and

Schmidt investigated leadership dynamics around the world in leadership laboratories,

businesses, and the military. Their case studies and observations led to a seven-level

continuum that provides a model for explaining the level of decision-making authority

retained or released by the leader.
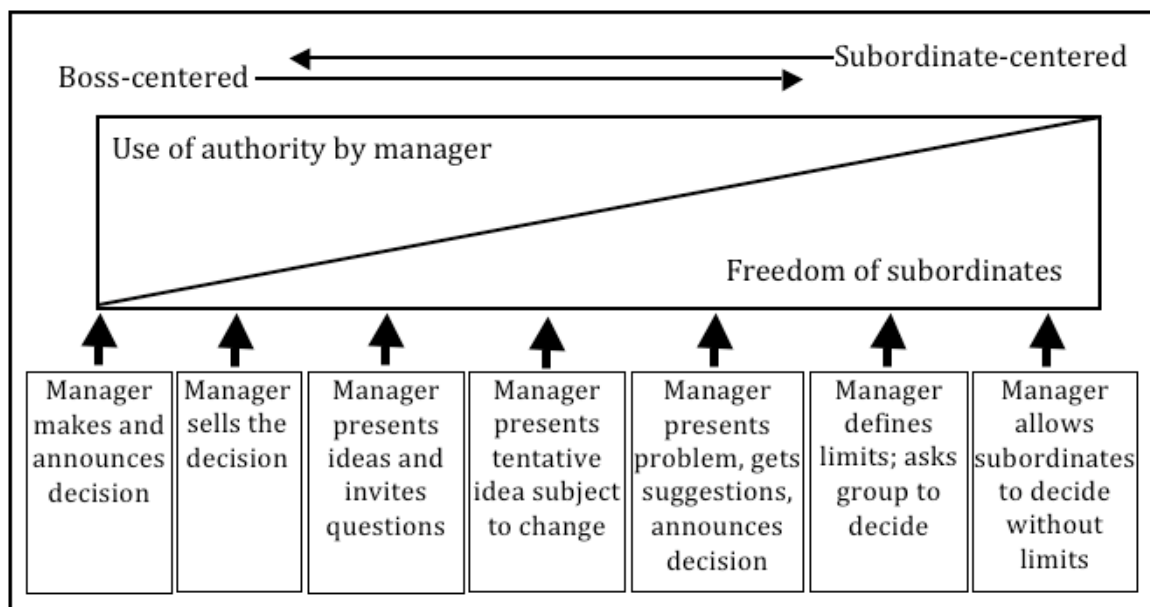
Figure 1: Tannenbaum and Schmidt's continuum of leadership behavior.

In their historical look at the development of leadership theory, Bass and Stodgil

describes the Tannenbaum and Schmidt model as "compelling" in its time (1990). Bass

and Stodgil go on to describe how many educational researchers and theorists adapted

and explored the Tannenbaum and Schmidt model for explaining the interpersonal

decision-making process in leadership environments.

One of these adaptations is Vroom's reworking of the Tannenbaum and Schmidt's description of managerial authority to a functional decision-making model (Vroom, 2000). Vroom created a normative model of with the practical intention to enable managers to look at a particular decision that has to be made and decide what type of management style to assume to foster a successful outcome (Vroom, 2000). Tannenbaum and Schmidt's original seven descriptors were reduced by Vroom to a continuum of five decision-making styles.
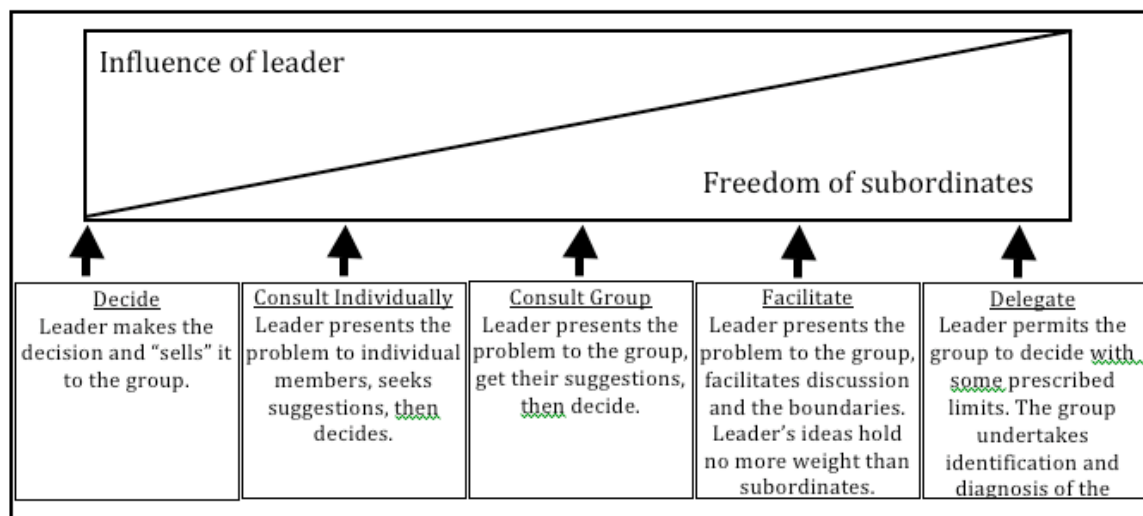
Figure 2: Vroom's taxonomy of leadership decision making.

The left side of this continuum represents a near total influence by the leader while the right provides complete freedom for the group. Vroom's continuum is ultimately a measure of exercised individual authority by the leader. The author describes the left side as representing the leader maintaining exclusive control over the decision-making process under her or his discretion. The right side represents the leader voluntarily limiting her or his own decision-making power to empower those employed and assembled for the task.

It is important to note that this continuum is value neutral. Vroom is not advocating for one element of the continuum as being more effective. Rather, the

continuum serves as a model for the identification and discussion of decision making in leadership. For Vroom, the application of a value-laden evaluation to any one leader or leadership decision is a highly contextual process. Vroom contends that there are distinct measures of these contextual considerations such as decision significance, team competence, leader's expertise, importance of commitment, and the likelihood of commitment. By carefully identifying the nature of these contextual variables, the model provides the leader with an indication of what type of decision-making strategy might best be employed. If the culture of an organization is highly divisive and the members have essentially split into two or more diametrically opposed positions, the likelihood of reaching a group commitment is low. When persons are arguing positions rather than issues, there is little chance that all of the individuals from one position will switch sides. Therefore, Vroom's model would indicate that in these situations, the leader should utilize a decision-making approach that will allow the leader to retain more authority over the final decision. By working out of the left side of Vroom's continuum, the leader can foster resolution by retaining ownership of the decision. Relying on the right side of the continuum would produce a situation where final resolution is unlikely.

However, in other situations, shifting the decision authority to the right of the continuum may provide the opportunity for more collaborative integration of thought and produce a solution with even greater positive impact. If a team of administrators and workers are all committed to the mission and vision of the organization and the internal divisive politics are minimal, then the leader's execution of decision-making authority in the absence of the group's input restricts potential solutions.

Additional Considerations in Decision Making Theory

Vroom's broad model for examining decision making in leadership is complimented by more specific research on individual elements. Decision making is a process dependent upon both internal and external variables (Brown, 1970). Brown explored the differences in decision-making strategies of business leaders to educational leaders. One of the variables he explored was the perception of risk. According to Brown, the propensity of a leader to take risk was historically considered a part of the leader's personality construct. However, when risk-taking as a variable of decision making is examined separately, the nature of the leadership position may have more influence. Brown was interested in examining the differences between private business leaders and their public counterparts. Specifically, he wanted to understand how they approached risk taking with regards to managerial decisions. Brown conducted research on 83 public school administrators and 63 business executives. The participants were provided a series of realistic scenarios regarding "education topics, business topics, and human experience common to both types of administrators" (Brown, 1970). Brown was able to document that private business leaders were more apt to take risks when compared to their public school counterparts regardless of age, experience, or organization size. The propensity of a leader in private business to take risks is distinctly higher than a leader in the public sector, all other variables being equal (Brown, 1970). This research indicates that the phenomenon of decision making in school leadership is distinct from that of business leaders.

Another potentially useful sub-set of the decision making in leadership research field is in the area of organizational ethics. It is possible for the leadership in an

organization to craft a set of ethical boundaries over time that influences constituents (Clegg et al., 2007). Clegg's recently published theoretical work is useful in that it provides a tempering of the Vroom model. The theoretical framework he provides is a description of organizational decision making that is, according to Clegg, always ethically bound. The ethical framework established by the leader can be enabling or restrictive of the decision-making process. He provides the example of the leadership ethic that Hitler created in Nazi Germany. At the height of Hitler's influence, the leadership had constructed a distinctly influential ethical framework across the German officers. If Hitler or one of his generals were to allow for significant group input into a decision, even far to the right of Vroom's continuum, it could be conceived that the group would independently decide as the leadership alone would have done because the organizational ethic was highly restrictive. The environment of the ethical boundaries were so constrained that generative thought was distinctly problematic. Clegg explains that the charismatic nature of the leader and the cultural norms of the group have strong influence over what would usually be ascribed to independent thought. This means that Vroom's continuum does not act in a vacuum. There are influential variables that must be considered when analyzing decision making and leadership.

One of these influential variables is the intention to examine the decision itself (Bass & Stodgil, 1990). Bass and Stodgil point to the research of Argyris (1976) as illuminating the benefit of intentionally seeking information to redefine the problem prior to the decision-making process. Argyris' research involved a deconstruction of how groups learn during decision making under a leader. Primarily examining decisions in the political science area, Argyris was able to develop a framework for the consideration of

this redefinition process. He argues that traditionally, leaders utilize a "single-loop" process during initial decision making (Argyris, 1976). Leaders project their intentions or goals to the group and seek feedback from them in an effort to maintain control and redirect member's potentially contradictory intentions back to the leader's established intention, thus completing the loop. Instead, by processing decisions in a "double-loop" fashion, Argyris argues that the leadership can seek out information from competent group members, including personal feelings and new information, so that these elements can be addressed, reformed, and delivered back to the group in a second "loop" of information exchange. Bass and Stodgil identify this double-loop process developed by Argyris as an example of intentional creativity by the leadership in group decision-making (Bass & Stodgil, 1990).

Studying the decision making of leadership is useful but any description or model of leadership that focuses singularly on decision making falls short. While the decision-making process is the critical juncture, it is also the terminal point of the venture. Limiting one's study of leadership to decision making would be the equivalent of trying to study life through an examination of autopsies. The problem solving that occurs prior to the decision-making process is what provides fertile grounds for examining effective leadership.

<center>Problem Solving Theory</center>

Theorist Karl Duncker defines problem solving as the intentional act of moving from a current state to an intended state (1945). Dunker provides an illustrative example of the difference between problem solving and decision making in his hypothetical x-ray problem he used to explore the phenomena of problem solving. The x-ray problem

<center>23</center>

describes a patient that has a tumor that cannot be treated with surgery and the beam of x-ray radiation needed to eradicate the tumor will kill the patient. In Dunker's model, the current state is the dying patient and the intended state is a healthy patient. Dunker's problem illustrates the significant difference between decision making and problem solving. The doctors initially have a very limited decision to make – let the patient die from the tumor or risk killing the patient with a treatment that will remove the tumor, but kill the patient. Dunker explains that if the doctors engage in problem solving before the decision-making process, additional alternatives can be explored. When Dunker used this example in his research, one possible answer was to divide the X-ray beams up into smaller, less lethal beams, and attack the tumor from multiple angles so that the only spot that receives a lethal does is the convergent point. The decision process for the doctors now has an additional alternative.

In the above example, the problem-solving process is generative in that new alternatives are provided. Dunker refers to this process as "productive thinking" in his research (1945). But there are alternative approaches regarding problem solving. Research reveals that problem solving can also be approached through the process of reduction (Bar-Yam, 2003). In his review of the history of the literature of complex problem solving, Bar-Yam describes the reductionist approach as an extension of the theory of scientific reductionism developed by fifteenth century philosopher Rene Descartes. Descartes' treaties was about the nature of the universe and knowledge and described that everything complex could be reduced to simpler, less complex parts (Descartes, 1486). Bar-Yam describes that in a scientific reductionist approach to problem solving there is an attempt to filter out the extraneous pieces of information and

examine the simplest, most concrete elements of the problem. He explains that the removal of nonessential facts can be a useful first step in problem solving in that this practice is efficient and avoids unnecessary entanglements.

This reduction or simplification approach to problem solving can be seen in the practical model problem solving called the 80-20 rule. Also known as Pareto's Principle, the 80-20 rule became the common understanding for business management in the later half of the tenth century (Juran, 1964). The 80-20 rule has had almost mythical application in the world of business. Examples include things like 80% of the land is owned by 20% of the people; or that 80% of your problems are caused by 20% of your staff; or even that 80% of your sales come from 20% of your sales force. The universal application is that you need to reduce your focus to the critical 20% to make gains.

As Juran establishes, sometimes reductionist thought can prove useful in some problem-solving processes. As he describes, "the vital few and trivial many" can be used to describe many problem solving situations. In medicine, not being distracted by masking symptoms or unconnected details saves lives. In science, being able to reduce a complex problem to simple variable constructs allows us to define causality and understand our world. But this is the reduction that Martin, Latham, and others have established as restrictive elements to effective leadership problem solving in modern business leadership. According to Martin, reductionist thinking by leaders can be dangerous. He explains that where the complexities of emotion, perception, fact, law, and life all interact, eliminating context may remove a potential course of action. Human social interaction is complicated and occurs consciously and sub-consciously and reductionism may reduce more than the extraneous; it may eliminate the solution (Martin,

2007). Further examination of this non-reductionist approach to problem solving is needed.

Creative Problem Solving

In his efforts to define problem solving, Dunker explored several nuances of problem solving including the construct of, "functional-fixedness." Dunker described this as a "mental block against using an object in a new way that is required to solve a problem" (Dunker, 1945). To investigate functional-fixedness, Dunker provided research participants a small box of tacks and a wax candle. The problem was to affix the candle to the wall so that the wax would not drip on the floor when burning. Dunker found that a large majority of the participants attempted to either tack the candle directly to the wall or they attempted to melt wax and stick the candle to the wall. However, a few dumped the tacks out of the box, affixed the small box to the wall, and then attached the candle to the box. Dunker identified this type of processing as creative problem solving (1945).

Others have gone on to further refine the construct of creative problem solving. Arp's research in the field of evolutionary psychology seeks to understand the cognitive process of creative problem solving. Creativity in problem solving is described as the cognitive fluidity of the thinker to allow the connection of information between separate mental constructs or module (Arp, 2005). Arp introduces the concept of "scenario visualization" as the critical element in the development of human creative thinking. This ability to predict future visual conditions based on current or past recollection allows for creativity. Arp makes the distinction that there is a describable and therefore potentially measurable difference between reductionist and creative problem solving. Reductionist problem solving confines consideration to the immediate elements only and works to

26

eliminate those that are not necessary to the solution. Arp describes these immediate

knowledge elements as mental modules of information and remembered events. The

related context and information defines these modules. Creative problem solving involves

the flexible exchange of information between these modules rather then their segregation.

Specifically, creative problem solvers are able to consciously identity and integrate these

modules of information into the visualization of future scenarios (Arp, 2005). Arp

indicates that with these constructs in mind, it is possible to measure creativity and that

intelligence and historical experience may have direct bearing on the creative ability of

an individual.

Coupled with the ability to forecast potential outcomes is the ability to effectively

evaluate these projections (Lonergan et al., 2004). Lonergan's research compliments Arp

in that he also describes creative problem solving as the ability to consider multiple

modules of knowledge when forecasting solutions. However, Lonergan maintains that

successful creative problem solvers must be able to critically determine the merit of these

potential outcomes rationally and that consideration is tempered by expectation.

Lonergan's investigation seeks to understand how the potential evaluation of outcomes

influences the decision-making process. To investigate this, Lonergan's team had 148

undergraduate college students examine a variety of advertising campaigns under

different evaluative schemes. The participants were provided initial advertising campaign

ideas for products and were asked to evaluate and revise them. The investigators also

established an evaluation process for the participants in advance of their work. Lonergan

found that changing the context of the pending evaluation greatly influenced the potential

for creative thought. In situations where the participants were told that only the

generation of new ideas was valued, creativity flourished. If efficiency was added to the evaluative process, creativity dropped. The research adds another dimension of understanding to the creative problem-solving process. As Arp and others have suggested, intelligence and past experiences may add to an individual's ability for creative problem solving. However, Lonergan's findings indicate that the context of the problem-solving process is equally important.

Lonergan concludes his study with evidence that creative problem solving is not a rigidly defined outcome. Instead, it is a contextual and fluid process that does not necessitate successful solutions. He was able to show that his participants in the study were able to engage in creative, generative thinking during problem solving and not arrive at a correct solution. This means that during an examination of a problem-solving situation for the presence of creativity, the outcome is not of concern. The presence of creativity is evidenced by the elements of cross-modular thinking, visualization, and evaluation but not necessarily the success or failure of the final outcome (Lonergan et al., 2004). In short, a leader can be creative in their approach to problem solving but still be unsuccessful.

In summary, Lonergan's research indicates that the context of the problem-solving process is important to understanding how the outcome is derived. This finding coupled with Clegg's work on the ethical context of decision making presented previously indicates that a highly influential variable during problem solving is the ethical framework of the situation. Clegg describes the ethics of decision making in terms of the established norms, the empathetic abilities of the actors involved, and the

perceived historical context. What is needed is a better understanding of these considerations.

<div align="center">Ethical and Empathetic Considerations</div>

While the words "ethics" and "empathy" have generally understood meanings, it is important to establish a specific understanding of these interactions in this study. Returning to the work of Clegg and his description of organizational ethics provides a foundation for this process. According to Clegg, while ethical practice in business has been the subject of many books, lectures, and courses in recent years, there appears to be two distinct methods for describing organizational ethics (Clegg et al., 2007). For some, ethics in business is often referred to as the consistent application of established rules and policy. That is, ethical behavior in business is equivalent to working within the system. For Clegg, this is not enough. He says:

> Ethics starts with a responsibility to the other as a person rather than being based on knowing the other in terms of one's own categories and systems of thought…. By implication, the ethics of decision making in organizations too is something that cannot be premised on calculation, but rather must begin with a concern for and care for others. (Clegg et al., 2007).

Clegg's conclusions provide an important distinction in the course of investigation problem solving of principals. Clegg shifts the focus on ethical behavior from "doing" to "understanding." Ethics is not simply the doing of the mechanical administration of pre-established guidelines, but the understanding of the internal motivations and circumstantial conditions involved in any situation. It is not just following the rules; it is why people follow, or do not follow the rules that is important. Building on Clegg's work, this study refers to ethical thought as the ability or intention to understand another's perspective. Clegg suggests examples of ethical consideration that include an

attempt to understand cultural or emotional motivations for another's actions.

It is important to make a clear distinction between the above process and empathy. While there are often subtle differences found in the literature regarding the exact definition of empathy, the often cited Berger provides a very intuitive definition: "The capacity to know emotionally what another is experiencing from within the frame of reference of that other person, the capacity to sample the feelings of another or to put oneself in another's shoes" (Berger, 1987). This provides the distinction between the constructs of ethical thought and empathy. Ethical thought can be considered the fuel for empathy. The greater the ethical awareness a person has for others in a situation, the greater the application of empathy may be. According to Berger, the two do not follow in lock step. It is possible to be aware of the emotional, cultural, or other ethical perspectives of another and to not have the emotional capacity or intention to appreciate what the other is feeling. Conversely, one might have a strong, natural or intentional inclination to be empathetic, but if one does not have the cultural, emotional, or other ethical facts in their purview, the empathetic scope is limited. While the elements of ethical thought and empathy are closely related, they represent distinct elements in this research.

Describing Ethical and Emotional Constructs

Discussing emotional and value laden terms such as ethics and empathy can be difficult as using words to describe feelings often falls short of capturing the complete meaning. One researcher has developed a terminology for discussing these concepts that is useful in conveying the information extracted during these interviews. Ahmed refers to emotionally laden decisions as being "sticky" with ethically charged factors under

30

consideration being "bumpy" and logical considerations being "smooth" (Ahmed, 2004).

The more "bumpy" elements that are involved in a decision, the more opportunity there is

for things to stick together and become entangled. Logical decisions are easy. The pieces

under consideration just slide past one another. As an example, if a principal needs to

decide how many busses to order for an away basketball game, this can be an easy,

logical problem to solve. If a bus holds 50 people and there are 30 players, coaches, and

support personnel, then the principal needs one bus – decision made. If we let ethical or

emotional elements into the problem, then things get stickier. What if there are parents

and fans who want to go? If this is an away game for an economically depressed

community, perhaps some of the parents and fans cannot get to the game on their own.

What about student supporters who would miss the end of the school day? All of these

emotionally laden elements are very bumpy. They stick together and pull other things

with them. If we let non-athletes go, their parents should probably go with them. Is the

school insured for this? Do the adults going on the bus need background checks like they

do if they volunteer in schools? The question of how many busses we need becomes very

sticky indeed. Ahmed's figurative language is simple in its elegance in that it uses very

common words to help convey complex meaning. This terminology proves helpful in

examining the highly interpersonal experience of the problem solving of principals.

<div align="center">Problem Solving of Principals</div>

The work of Sergiovanni mentioned earlier is useful when examining the

problem-solving process of principals. Sergiovanni's (2000) adaptation of Parson's

(1951) work provides a model for understanding the nature of relationship dynamics in

education. By evaluating the behavioral tendencies of school stakeholders on these five

<div align="center">31</div>

continuums, one could determine if the organization was more community-like, *gemeinschaft,* or society-like, gesellschaft. Sergiovanni's adaptation of the particularism versus universalism continuum for schools has distinct application to this exploration of problem solving of principals.

Sergiovanni's work provides a model for the identification of the locus of motivation during interpersonal decision making. He noted that community-based or gemeinschaft organizations treat each interaction as a unique situation based upon the personalities, histories, and circumstances involved for that particular situation (Sergiovanni, 2000). Society-based, or gesellschaft organizations apply universal standards to all situations regardless of the individuals involved. For example, a community minded school might apply different consequences to different children involved in an identical infraction based upon mitigating circumstances. A society minded school would apply the existing policy to all persons equally. Sergiovanni noted that large schools often must resort to a strictly universal approach to the administration of policy out of necessity because the number of participants is so large that the cultivation of interpersonal knowledge is not possible (Sergiovanni, 2000). While Sergiovanni was attempting to advocate for the establishment of small schools, it is not the intent of this research to determine the relative merit of particularism versus universalism. However, there is utility in understanding a leader's tendency to include or avoid the consideration of others' needs in the exploration of how decisions are made. When a principal is confronted with a decision, Sergiovanni's continuum provides the scaffolding upon which to consider the dynamics of interpersonal action and the

motivations involved. What must next be considered are the types of problems a principal may encounter.

Types of Problem Solving for Principals

While the role of the principal as a public leader is complex and may vary in task and description across individual schools, the nature of the types of decisions to be made and therefore the opportunity for related problem solving, may be considered under three venues as described by Glickman (Glickman et. al., 2001): the application of policy, non-policy bound decisions, and personal action decisions. A prolific author in the field of educational leadership from the University of Georgia, Glickman's recount of the historical establishment of the role of principal explains that school board policy, as well as state and federal law, bind the actions of principals. While one might conclude that the prevalence of policy is restrictive of a principal's opportunity for creative problem solving, this is not the case. Because these policies are in governance of human behavior and human behavior is complex, these procedures prescribe fixed outcomes in very few situations (Glickman et. al., 2001). An example of a fixed-outcome decision is a discipline case that involves extremes in conditions such as criminal behavior and other zero-tolerance statutes such as arson, drug possession, and assault.

Glickman compares the application of school policy to our legal system. There is a preponderance of laws that prescribe what is and is not allowed by community, state, and federal statute. However, the justice system is a complex system of lawyers, judges, case law, and context designed to provide the appropriate application of policy. The legal system is in place for the application of the law to contextual situations. According to Glickman, the principal is the primary conduit for this application in the school setting.

33

She or he is responsible to the official school board policies and published procedures, as well as being bound to cultural and community norms. These decisions might involve discipline, execution of programs, faculty development, curriculum offerings and anything falling under state or federal code.

Additionally, there are problems that fall outside the bounds of policy and established procedure. While there is nearly always some related governance in a school setting, there are isolated incidents during which decisions must be made with no guiding policy (Glickman et al., 2001). Some examples might include room assignments, furniture styles, agendas, morning announcements, or resource allocation. Glickman, explains that there can be no "scientific prescription" for decision making in school supervisors; there are simply too many variables for principals to be spared the "agony of thinking" or the "torment of feeling" necessary to lead in schools (Glickman et al., 2001). While individual schools may have internal procedures regulating some of these non-policy bound decisions, this category of decisions reflects instances where there are little to no established parameters.

Finally, Glickman references internal decisions of the principal that involve his or her personal action. For example, how a principal decides to talk to a particular individual involves a small problem to be solved. What tone of voice, how long to wait after a question, or even whether to have the conversation at all, are problems. How to dress, what events to attend, when to act, when to defer, when to delegate; all of these are personal decisions that may have bearing on the investigation of the problem-solving process of principals.

Like Sergiovanni, Glickman defines the effective principal as a good problem solver. Creative, ethical approaches to problem solving by the leader result in positive supervision (Glickman, et. al., 2001). Glickman and Sergiovanni value creative problem solving. If creative problem solving is important to effective school leadership, then the development of a theoretical framework for its identification and understanding may prove useful. At the time of this investigation, no model for the exploration of creative problem solving in educational leadership was available. Fortunately, there is research available in the field of business leadership that provides a starting point.

<div align="center">Integrative Thinking</div>

As mentioned previously, one agent of positive change in MBA programs has been the research of Roger Martin (Berner, 2005; Lieber, 1999; Van Praet, 2009). Martin's most recent contribution to business leadership development has been his creation of a model for the identification and explanation of creative problem solving in positions of leadership (Martin, 2007; Martin & Austen, 1999). In a review of his latest publication, Martin is referred to as the "celebrity" of the business education world (Wahl, 2008). Dean of the Rotman Business School in Canada, Martin has been researching and formulating a model to examine creative problem solving in business leadership over the past decade. Most recently, his publication of *The Opposable Mind* details a four-step process by which creative problem solving in business leaders can be understood (Martin, 2007). In a recent report for the journal *Business Ethics Quarterly*, Martin's work is specifically identified as a positive example in the author's call for greater ethical problem solving consideration in MBA programs (Harris, 2008).

Martin's work was inspired by earlier observations into creative problem solving

<div align="center">35</div>

made by F. Scott Fitzgerald and Thomas Chamberlain (Martin, 2007). In 1945, Fitzgerald wrote, "The test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time, and still retain the ability to function" (Fitzgerald, 1945). While Martin credits this statement as being somewhat generative to his thoughts for his model, he firmly believes that Fitzgerald's inclination to attribute this ability to those with exceptional intelligence is shortsighted. As an educator, Martin indicates that he desired to deconstruct the creative problem-solving process in leadership in such a way that it would be possible to transfer this skill set in business leadership students (Martin, 2007).

Chamberlain's work, published in the journal *Science* in 1890, provided Martin with the direction to begin his deconstruction of the creative problem-solving phenomenon. Chamberlain wrote:

> In following a single hypothesis, the mind is presumable led to a single explanatory conception. But an adequate explanation often involves the co-ordination of several agencies, which enter into the combined result in varying proportions. The true explanation is therefore necessarily complex. Such complex explanations of phenomenon are especially encouraged by the method of multiple hypotheses, and constitute one of its chief merits (Chamberlin, 1890).

Chamberlain goes on to suggest that this process is a skill and that, "when faithfully pursued for a period of years, it develops a habit of thought"(1890). Chamberlain was an accomplished geologist, professor, and theorist (Chamberlin, 1890; Dott, 2006). His theories regarding the potential utility of multiple hypothesis consideration during science investigation were met with both initial skepticism and accolade (Dott, 2006). However, over time, the natural science world has championed his theory as visionary and the article has been reprinted several times including The Journal of Geology in 1897 and 1931, Scientific Monthly in 1944, and Science in 1964. Chamberlain himself outlined the

difficulties with the process saying that truly working with multiple hypothesis can only occur in the mind and that there is a "problem with expression" (Chamberlin, 1890). In Chamberlain's conclusion, he laments that the written or spoken word limits expression to singular concepts expressed linearly where as the mind is capable of much more. Unlike Fitzgerald, Chamberlain believed that the process could be taught but he expressed that this process would be quite difficult, especially in younger students, because of the inclination of a young mind to mirror the linear limitations of language (Chamberlin, 1897).

This is where Martin's work begins to take shape. Martin's express goal was to deconstruct the problem-solving process. He did this by interviewing successful business leaders and exploring how they functioned during the problem solving process. Specifically, was there any core process common to successful business leaders with regard to decision making and problem solving? In all, Martin interviewed fifty business leaders with, "unquestioned records of success" (Martin, 2007). According to Martin, the interviews were a purposive sampling designed to represent business leaders representing a large range of cultures, size, and venture.

The core of Martin's problem solving theory is encapsulated by the title of the book, *The Opposable Mind*, which he published at the conclusion of the study. Martin argues that the human mind is opposable in that we are capable of grasping two disparate ideas in our mind at one time. Integrative thinking involves the creative act of not simply deciding between different directions but synthesizing a new path. He identifies a process common to all of these men and women that centered upon intentional creative problem solving. In decisions of great importance to the future of the company, often when

presented with difficult choices between seemingly fixed alternatives, these successful

leaders became generative rather than reductionist in their problem solving.

Martin was able to demonstrate a propensity in successful leaders to approach

difficult decisions and seek out additional information, a process Martin calls, "salience",

instead of reducing the number of variables under consideration. These business leaders

create new alternatives beyond those initially presented. If we return again to Vroom's

continuum (2000), it is possible to see that a shift from left to right is actually increasing

salience by including more personnel in the discussion process. But because Vroom's

model is limited to the decision-making process, it cannot account for the additional

sources of information and courses of action associated with problem solving. While

Vroom's model possesses some utility in determining the level of participation of the

members within an organization, it is not wholly reflective of the decision

making/problem solving considerations of effective leadership.

This salience process is related to the universalism – particularism continuum

discussed previously. Operating out of a strictly universalist approach limits the salient

points for consideration to only those allowed by policy. Consideration of individual

needs, extenuating circumstance, and historical context beyond policy application creates

a much larger sphere of salient activity. From this salience comes the second process in

Martin's model, causality. Facts do not exist in isolation and there is a causality that

relates all of the salient points together. It is during the causality stage that the salient

points are refined and developed. Perhaps there are completely non-causal points that

have been considered but have no actual bearing. Martin proposes that at this point, the

integrative thinker creates causal maps that describe these interactions. This causality is

not unidirectional. Every relationship is a dialectic that produces feedback and influence in multiple directions. Understanding this causality and the interdependence of the associated elements allows the salient elements in the problem to generate greater understanding than their individual presence. At this point, the integrative thinker may actually reduce the number of salient points under consideration when their relationship to the larger picture cannot be identified.

The model progresses by building directly upon the foundation of the salient considerations and causal interactions to a process Martin calls "architecture." The initial component of the architectural phase involves the sequencing of tasks designed to bring about potential courses of action. The integrative thinker begins to develop synthesized paths that address the established salient points and identified causalities. The leader then constructs potential courses of action that build upon the causal relationships of the salient points. There may be different ways to move these building blocks, but structure and form are developed to create a blueprint for future development. There is creativity in this process from the start. The leader must be creative enough to seek out that which she or he does not know. The leader must envision the ways in which the elements are related and influence each other. According to Martin, it is at the architectural phase that the truly creative process must reach its full development.

Finally, Martin's resolution phase involves the execution of the developed and selected architecture. Specifically, resolution is an active process for the leader that may involve a return to the previous steps as additional salient information comes to light and new causality is revealed. The key is that the resolution of a problem requires the continued commitment of the leader towards completion. If problems are brought to a

leader and decisions are made with the resulting action to be carried out by subordinates, then the system devolves into a monarchical state of isolation and misinformation. A leader must continue throughout the resolution phase of the problem solving because the dynamic nature of execution brings new problems and additional information to light.

Integrative Thinking as a Model for Problem Solving

Problem solving can be examined as the work of causal modeling. That is, by examining specifically the potential causes and interactions of a situation, a best course of action is decided upon (Martin, 1999, 2007). In one of the most cited works on problem solving, Duncker describes problem solving through material causation: doing X will cause Y to occur (Duncker, 1972). By changing X, one can change Y. In contrast, Martin describes integrative thinking as more of a teleological model. The actor is considering more than just the relationship between X and Y. The integrative thinker considers what the purpose of X is and why do we want Y. Integrative thinking improves the odds of success without foreclosing other actions and disciplines (Martin, 2007)

It is essential to keep in mind that, according to Martin, the key to effective integrative thinking is the meta-cognition of the process. Leaders often consider additional courses of action (salience), make causal models (causality), and detail plans before acting (architecture) without intention. For Martin, integrative thinking is a purposeful act. It is being aware of the process and seeking out salience with intention and determining causality with purpose that true ground is gained according to Martin. Martin arrived at his model to describe successful problem solving by examining what successful decision makers do through circumstance or as a by-product of transformative leadership. While these successful leaders may follow integrative thinking principles,

Martin suggests that others can do so through intention. It is in the active cognition of the process that the true utility of the model is revealed. It serves for more than simply identifying what creative problem solving in leadership is, it provides a framework for its instruction. For the purpose of this study, Martin's framework is useful to provide a methodology for deconstructing the problem-solving process.

As the model proposed by Martin is just over a year old at the time of this investigation, the opportunity for extensive application has been limited. The business education world has reviewed this work with accolade (Goar, 2007; Ramsay, 2008; Schachter, 2007). While there does not appear to be any currently published work that uses the Integrative Thinking model as a method for identifying the presence of creative problem solving, the work is cited in a number of studies examining current issues involving business leadership. Benson and Dresdow explore the integrative thinking model developed and how it interacts with common sense (Benson & Dresdow, 2009). The paper investigates the premise that, "on the surface, [common sense] seems to be incompatible with integrative thinking." The authors conclude with the observation that the wisdom gained from instinctual, common sense-like perception is simply additional, salient points for the integrative thinker. Integrative thinking is also identified as a new and potentially powerful strategy in the world of strategic business model design (Fraser, 2007) and integrative thinking was recognized in the book *Leaders Make the Future: Ten New Leadership Skills for an Uncertain World* (Johansen, 2008). However, no application of integrative thinking in educational leadership research was found.

Martin has indicated he is aware of two authors in the political science genre that were using his model to examine political leadership, but he was unaware of any

application to the field of educational leadership (Martin, 2008). He has also expressed agreement that the model he developed could have broad application beyond the world of business leaders and he saw no apparent issue with its use in the world of school principals.

<p style="text-align:center;">*Limitations of Integrative Thinking Model*</p>

No formal criticism of the integrative thinking model exists at the time of this investigation although one book review did reference that, while Martin believes his model can be taught, he provides little direction on how to instruct the process of generative reasoning that the initial steps of the model rely upon (Evans, 2007). Martin is very clear that this process can be taught through a formalized process but his book does not provide significant details regarding best practice for doing so. While his work does appear to be respected and well received by its target audience, there is little contextual evidence for its successful application beyond the business world.

Additionally, Martin does little to verify that the converse of his claim is equally true. That is, if successful business leaders display a tendency for integrative thinking during difficult decisions, do unsuccessful leaders fail to do this? Martin does not present any counter examples that show what happens when integrative thinking is not employed. He does mention that at the time of his investigation, he was focused on understanding the nature of successful leaders. Martin suggests that failure in business can be the result of so many factors that making a causal relationship between a lack of integrative thinking and an unsuccessful business venture would be difficult.

Integrative Thinking In Context

No single model or approach can be reflective of all of the nuances of human interactions in a leadership environment. However, the integrative thinking model does provide a comprehensive description of how to identify and detail creative problem solving independent of role, leadership style, environment, or context. Researched and written with the business leader in mind, Martin indicates that it is applicable to any problem-solving venture as a means for describing the creativity employed. While Martin's intention may have been to provide decision makers with a meta-cognitive process for bettering their leadership situation, it also serves as a lens through which we can identify if creative problem solving has occurred.

Martin's description of integrative thinking provides scaffolding upon which a model for the examination problem solving in principals can be established. When looking at a decision-making process, Martin's model allows us to ask critical questions. Was additional information and personnel sought out (salience)? Was time spent determining the relationship between these salient points (causality)? Were multiple plans crafted prior to commitment (architecture)? Was there significant administrative follow through (resolution)? Based upon the evidence in his written work and Martin's direct feedback, the integrative thinking model is an appropriate process for examining the problem solving of principals. What is needed is an adaptation of Martin's model for the unique world of school leadership.

Implications for Current Research Project

The creativity of problem solving can be described using Martin's model of Integrative Thinking. However, some adaptation of Martin's work is needed for

application to the current study. Based upon the framing research presented earlier and Martin's own description of the process, an additional, initial stage is included to reflect the actor's definition of the problem. Martin discusses that integrative thinkers distinctively go, "past the binary limits of either-or" (Martin 2007). That is, when presented with a decision to make, the integrative thinker engages in problem solving before deciding a course of action and this problem solving may completely reframe or even remove the original decision to be made. In Martin's research, all of the interviewees he describes solve problems from this inclination; they were all integrative thinkers. However, as this is exploratory research, one cannot assume that this will be the case with interviewing principals. In Merten's description of effective interview practice, he explains that it is important not to assume a predisposition or inclination in your interviewees (Mertens, 1998). Therefore, a "Definition" parameter is added to the model to describe how the principals interviewed set about defining or potentially redefining the decisions presented.

Additionally, Martin's resolution phase is unnecessary for the purpose of this investigation in this model. While resolution might have great application to effective leadership and in fact, successful resolution may hold the greatest impact for the overall effectiveness of a leader according to Martin (2007), the focus of this research is to establish the process of problem solving itself. As Martin's resolution phase is distinctly post-problem solving and decision making, its relevance here is limited.

Therefore, the problem-solving process is examined under the following adapted model:

- Definition (DEF) - How was the problem defined (externally or internally)? Was an effort made to redefine or more deeply understand the problem? Did the understanding of the problem remain constant throughout? This refers to the principal's willingness to reconstruct the reality of the problem presented. Flexibility, or evolution of the problem statement indicates potentially creative problem solving.

- Framing (FRAM) - Is there evidence of additional factual or contextual inclusion? Were additional resources sought or were variables eliminated in a process of reduction? Exactly what variables and what stakeholders were involved in the consideration of this problem. This is reflective of Martin's salience phase but it is also important in determining if the process sought to elicit the meaning ascribed to these variables and facts. Inclusive rather than exclusionary practice indicates creative problem solving.

- Linkage (LINK) – To what degree was the causality or interrelatedness of the variables considered? While related to the Martin's causal phase, it is also important to examine the decision-making process with respect to being policy-bound. The political, cultural, and legal considerations are considered here. The variables themselves are examined under the Framing parameter. The Linkage parameter is concerned with the connection of these variables with each other and potentially as of yet unidentified variables. Creative problem solving is indicated by evidence of causal modeling as described by Martin as well as the inclusion and elimination of variables under consideration based upon their causal relationship to the situation.

- Architecture (ARCH) – Is there evidence prior to the rendering of a decision that there was speculation of results based upon projected interactions? Were multiple models considered and encouraged. Creative problem solving is evidenced by alternative courses of action and projected outcomes being considered.

Summary of Adapted Model

The purpose of the model is to describe the situational problem solving of principals in a qualitative study. The identification of creative problem solving is reflected in general considerations such as generative reasoning, assertive inquiry, and inclusive rather than reductionist thought. Specifically, these considerations are best sought under these four parameters, each with their own continuum of creative application.

Definition	Framing	Linkage	Architecture
Rigid ←→ Flexible	Reductionist←→Inclusive	Singular ←→ Multiple	Singular ←→ Multiple

Figure 3: Four parameter continuum for the identification of creative problem solving. As each parameter is considered, movement towards the right of each continuum would indicate a higher degree of creativity employed. It is highly possible that certain parameters are not engaged at all, eliminating them from consideration. The more parameters engaged and the further to the right along each continuum, the greater the application of creativity to the situation.

An additional measure of the creative problem-solving process is a consideration of the level of meta-cognition occurring. Is the principal aware and intentional in their action? Martin describes three additional meta-cognitive considerations when determining if a person is intentionally engaging in creative problem solving. First, does

the leader believe that they are capable of finding a better model than what immediately presents itself? Second, does the leader believe that they must increase the complexity of the situation and that they can get through that complexity to solve the problem? And finally, do these leaders allocate time for such efforts?

It is not the purpose of this model to quantitatively determine a specific level of creativity employed by principals in problem solving. Instead, the model serves only to provide a framework for describing the presence or lack of creativity in the problem-solving process. The model provides the necessary investigative focus to examine an interview transcript for the presence of creative problem solving. Most importantly, it provides descriptive language for the discussion to occur. The aim of this research has been to better understand the process of the problem solving of principals. This new understanding is important as these findings may have bearing upon the principal certification process. To that end, literature regarding the transferability of problem solving skills follows.

<center>The Transferability of Problem Solving Skills</center>

There is a wealth of research detailing the transferability of both decision-making and problem-solving strategies (Frederiksen, 1984; Reynolds, 2005; Staiger, 1987). Reynolds has developed a curriculum to teach decision-making skills in at-risk children. This successful, research-based program has recently been expanded from low-income urban schools to MBA programs. A professor emeritus from an MBA program, the teaching of critical problem solving has become Reynolds' life work. His program's success and longevity after ten years and in a variety of settings provides evidence for the successful practice of the intentional development of problem solving skills.

<center>47</center>

In addition to the work of Reynolds, one of the early researchers into the purposeful teaching of problem solving was Norman Frederiksen (1984). He examined the literature from cognitive psychology and brain-based research to determine direction for schools. According to Frederiksen, the research indicated that problem solving requires creativity, logic, and forethought. What appears to be deeply important to the instruction of these skill sets is the charge to have students become meta-cognitive about the process. Frederiksen claims that being aware that one is in the process of decision making or problem solving is a first step to improving one's performance. Persons may find themselves reacting without the appreciation that they are engaged in these cognitive processes.

Instruction in decision making has significant prevalence in at-risk populations such as urban youth (Graumlich et. al., 1991). Graumlich was able to demonstrate success in improving decision-making skills by having students actively and openly consider a variety of awareness parameters before making a decision. Awareness is described as recognizing that the individual was going to be making a decision and providing the mental tools necessary to stop and consider other factors. These factors included elements such as options, probability, outcomes, prediction, goals, and goal trade-offs. Over a sixth month period, the students involved reported significantly enhanced awareness of the decision-making process and self-reported more successful outcomes in their personal decision making.

The literature centering upon problem solving skill instruction has prevalence across all levels and disciplines from elementary school to graduate school as well as professional and skilled-labor groups. By nature, human beings solve problems every day

and our existence is predicated on our ability to do so (Staiger, 1987). Humanity may do much of this problem solving without self-identifying the process but it occurs regularly nonetheless. Problem solving can be taught using express cognitive training (Frederiksen, 1984) or throughout any number of identified processes such as creative writing (Wadlington & Hicks, 1994), role-playing (Glenn et al., 1982), or several discipline specific techniques where students are taught how to think about thinking (Drum & Wells, 1984).

Martin's work on creative problem solving set the stage for educational leadership in that Martin provides evidence that creative problem solving can be taught in MBA programs (Martin, 2007; Martin & Austen, 1999). The most important factor identified by Martin is that developing leaders must be given the opportunity to practice thinking about their problem-solving process as it is occurring. Leaders must be intentional in their thought process during problem solving and not simply reactive. The work by Martin and others suggests that creative problem solving can be transferred in an educational setting. Therefore, if creative problem solving can be shown to be a beneficial process to the public school principal, formalized training on problem solving could be incorporated into principal certification programs.

<div align="center">Summary</div>

This chapter began with establishing a theoretical framework for the investigation of problem solving and decision making by examining these elements outside the world of educational leadership. Decision making is defined as the act of selecting between presented alternatives, and problem solving is the generation of those possible alternatives. Because the problem-solving process for principals is highly interpersonal,

the concepts of ethics and empathy in problem solving are critical. Therefore ethical

thought has been defined as the awareness of cultural, emotional, or other social

perspectives of others by the principal. Empathy refers to the ability or the intention to

consider or act on these perspectives before making a decision. It is the goal of this

research to better understand the phenomenon of the problem-solving process of

principals and this exploration is done under a model designed to identify the presence of

creativity in the problem-solving process through a four-stage process adapted from the

Integrative Thinking model developed by Roger Martin for original application in the

field of business leadership. With these understandings, the investigation into the

phenomenon of the problem solving of principals is presented.

CHAPTER 3

METHODS

The research methodology is presented in five sections. The chapter begins with a rationale for the methodology of this investigation followed by the details regarding the research design and the justification for that design. In the next section, the procedures for data sourcing, sampling, and analysis are provided. Information regarding the limitations of this study follows. Finally, after details regarding the researcher disclosure and prior studies are presented, the chapter concludes with a presentation of the ethical considerations involved in this present study.

Methodological Considerations

Rationale for Methodology

The research question is designed to explore the process of problem solving of school principals. There is little presence of problem solving research in the literature investigating the position of school principal. For this reason, a phenomenological inquiry is valuable in identifying the parameters and factors regarding the nature of an unknown phenomenon (Patton, 2002). Research with an intent to understand social phenomena can be undertaken utilizing several different methodological approaches and there is significant variation regarding their classification and procedures. According to social researchers such as Patton (2002), Mertons (1988), and Gall (Gall et. al., 2003), this type of research may be categorized as either qualitative or quantitative in nature. Gall, Borg, and Gall argue this distinction is best understood by recognizing the intention of the research itself (2003). Quantitative investigations are primarily concerned with the proof or disproof of a clear hypothesis while qualitative investigations are not (Gall et al.,

2003). In fact, qualitative research is often useful to explore a phenomenon in order to establish a hypothesis for future quantitative research (Mertens, 1998). Patton summarizes the two approaches:

> Validity in quantitative research depends on careful instrument construction to ensure that the instrument measures what is supposed to be measured. The instrument must then be administered in an appropriate, standardized manner according to prescribed procedures.... In qualitative inquiry, the researcher is the instrument (Patton, 2002).

A quantitative approach therefore requires clearly established variables and an instrument to measure them. At this exploratory stage of research investigating the process of the problem solving of principals, these variables are unknown and there is no established instrument to examine the problem solving of principals.

Guba and Lincoln avoid the numeric implications of the terms "qualitative" and "quantitative" and instead designate the two major paradigms as scientific positivism and constructivism (Guba & Lincoln, 1989). The distinction between the two approaches for Guba and Lincoln is less about the hypothesis framing that Gall employs and is more about the nature of truth. The scientific positivism approach to inquiry assumes that there is a truth and that truth can be measured and known. The constructivist does not seek to find such universal conclusion. Instead, reality is constructed and highly dependent upon perception, context and interpretive meaning (Guba & Lincoln, 1989).

Despite any semantic differences, the literature into social research points to a clear functional difference between the two camps. In order to perform an appropriate, quantitative or hypothesis-driven investigation, one must have clearly defined variables that can be described and measured (Gall et al., 2003). When the purpose of investigation is to explore what variables may be at work in a phenomena, the work is best carried out

under a qualitative (Patton, 2002) or constructivist (Guba & Lincoln, 1994) paradigm. In Hammersley's exploration of the qualitative paradigm specific to education research, particular attention is paid to what he and others refer to as the, "appreciative capacity" of this method to seek out nuances that are often ignored or neglected (Hammersley, 2000).

Methodology of the Investigation

As there is currently no clear explanation of the variables involved with the problem solving of principals, a qualitative, constructivist methodology as defined by Patton (2002) is used in order to bring understanding to this phenomenon. Patton provides that the most common form of data collection for qualitative research is the interview. Using Patton's construct of the "researcher as instrument" I interviewed currently serving principals with regard to their decision-making and associated problem-solving processes. The interviews were conducted in a semi-structured format. This interviewing technique uses pre-defined questions to address desired elements but a majority of the exchange between the interviewer and the subject is provided to the subject for free response (Patton, 2002).

A distinction is often made between participant and non-participant observation approaches to collecting qualitative data (Hammersley, 2000; Patton, 2002). Participant observation involves the researcher becoming embedding into the location where the data resides. The researcher immerses themselves into membership-level status with those being observed in order to develop relationships, trust, and insight. In contrast, the non-participant observer attempts to maintain some level of personal distance and collect information from outside the phenomenon of interest. This investigation is interested in understanding the phenomenon of problem-solving process of principals. While a

participant-observer approach to data collection may provide significant insight into the phenomenon, it also exposes the children and adults in the school setting to a level of personal intrusion that this exploratory research does not warrant at this time. Therefore, a non-participant observer methodology was used where principals were interviewed in their schools but not in the direct interaction and execution of their job duties. This allowed the principal to contextually reside in their decision-making and problem-solving environment with little disruption to the school environment.

Interview questions were developed to allow for the principals to describe their decision-making and problem-solving processes from recalled experiences and to explain how they might apply these processes to unique scenarios. The recalled-experiences questions were:

1. Could you identify some decisions that you have to make as a principal?
2. Would you please describe how you became aware that this decision needed to be made?
3. How did you approach that decision?
4. Can you provide any additional details regarding this process?
5. What was the resolution?
6. Do you consider this a successful process?

The intention of the scenario questions is to allow the principal to demonstrate their decision-making and problem-solving thought process without concern for revealing any confidential information from actual situations. The scenarios were designed with the input of two, currently serving principals to reflect typical decisions that might confront any principal in a K-12 environment. These two principals were not interviewed for this study. Each scenario was developed with the possibility for problem solving to be employed. The scenarios are as follows:

1. A parent schedules a meeting with you. During the meeting, he insists that another student in an older grade is bullying his son. He is considering pressing charges against the older boy and the school for allowing this to occur.

2. A student has attained her 15th late arrival to school. A letter home and several phone calls have not improved the situation. Her mother brings the student to school everyday. When she is late, it is anywhere from one to 15 minutes. Her first period teacher is angry that nothing is being done because her continual late arrivals are disruptive. The girl has served 3 detentions for this behavior prior to this late arrival.

3. Your faculty parking spaces are assigned by number and very limited. A senior faculty member has expressed dissatisfaction with her spot as it is very far from the door and is under an old tree that is constantly dropping branches. There is no policy or procedure to assign spots. As a person leaves, his or her replacement gets the open slot.

4. The science department chair [secondary principal] or lead teacher [elementary principal] is vacated by retirement. Two faculty members, one with eight years of experience and one with 20 have expressed informal interest. In your opinion, the older, more experienced teacher is less competent and visionary than the younger teacher but the older teacher probably has a majority of the department's support. The principal has the final authority to recommend the department chair to the superintendent.

5. Scenario appropriate for elementary principals only: During August, you get requests from 15 parents to have their child switched from a particular teacher's classroom. While it is not uncommon for you to have several of these requests each year, these are all for one teacher and all occur near the same time frame.

6. Scenario appropriate for secondary principals only: A parent of a 7th grade student with a GIEP is requesting a schedule change. Your school currently offers exploratory language in 7th grade (1 quarter of four different languages) and then students select one of those four languages for a level 1 class in eighth grade. This parent is requesting that their child be allowed to take Spanish I in 7th grade as

they have already spent some time in Spain and the child has demonstrated some
aptitude and interest in Spanish.

The scenario questions allowed for the principal to discuss the decision-making process
without having revealing personal or confidential information. Each question also
involved follow-up questions with the intent of seeking clarification or additional
information. For example, when asked the question regarding bullying presented above,
one principal responded, "I'd turn that over to our anti-bullying team right away." While
the decision to do this is illuminating itself, additional questions were asked including,
"What is the anti-bullying team?"; "Who has the final decision?"; and "what would you
do if the anti-bullying team was not available?" All follow-up questions were asked
under the umbrella of the original research design.

Ontological Considerations

People tend to perceive their constructed reality as being the only reality (Patton, 2002).
In the case of interviewing principals regarding the process of their problem solving, the
principal's framing of the problem constitutes the reality in which they are operating.
Additional considerations or alternative viewpoints that would mitigate the situation as
described by the interviewee may exist. As the purpose of this investigation is to explore
the problem solving of principals based upon a phenomenological inquiry into their
perceptions of the process, the reality of a given situation provided in the recollections of
the principal is assumed to be as described in the interview. No effort was made to seek
confirmation of the principal's description of events.

Data Collection and Analysis

Data Sources and Sampling

A purposive sampling process is useful for a phenomenological understanding the problem solving process (Patton, 2002). Purposive sampling process involves identifying specific groups or even individual candidates that may provide rich sources of information. In developing a purposive sample, it is important to describe how the sample is defined. Since the literature review demonstrates that there are many certified persons who do not seek the principal job or who hold the position less than one year, only those principals who have served for at least two years are considered. Also, while telephone interviews have some benefit, the face-to-face interview has the potential to gather additional information such as facial expressions, body language, and other non-verbal communications (Patton, 2002). Face-to-face interviews were conducted and as a result, the pool of candidates was restricted to a convenience sampling of a two-hour travel radius from the researcher's location in central Pennsylvania. This geographic area is coincidentally useful in that it contains principals serving in urban, rural, and suburban schools as well as varying levels of socioeconomic conditions. Interviews were sought from public school principals with at least two years of experience regardless of age, gender, race, or other characteristics. However, non-certificated principals or emergency certified persons were excluded from consideration in this study.

Twenty-nine Intermediate Units (IU) help facilitate educational services for all of the 501 school districts in Pennsylvania. Each IU serves 15 to 30 school districts for many purposes such as professional development, education services, and cross-district communication. There are three intermediate units that have schools within the specified

radius of this study, including Lincoln IU 12 (27 districts), Lancaster-Lebanon IU 13 (22 districts), Capital Area IU 15 (25 districts). These IU's maintain active lists and contact information of the schools in their service area. These 74 districts were utilized as the sampling pool.

The IU directors were contacted to obtain recommendations for principal interviews with limited success utilizing the contact letter found in Appendix A. Candidates were then sought out directly in the identified geographic area using the letter provided in Appendix B. This process met with greater success. My professional experience as a principal was an asset in obtaining permission from candidates for an interview. While I did not personally know any of the interviewees, there was certainly a clubhouse-like feel to the start of many of the interviews. I observed that many of the principals were quick to positively acknowledge my recent move from the principalship to higher education with some degree of congratulations. Five of the principals reported doing adjunct work for higher education programs. I feel quite strongly that my unique position of being a recent principal, now in higher education, offered me an opportunity to garner a relationship of trust between the interviewees and myself. Not only was I a member of the principal's club, I was no longer in the competitive pool.

Given the exploratory nature of this research, the opportunity for snowball sampling was also employed. The snowball-sampling process involves asking interviewees if they would recommend other candidates to be involved in the research. This process has the benefit of having persons who are aware of the intent of the research to help identify individuals who have information to share and a willingness to do so (Hammersley, 2000). All interviewees were asked for their professional recommendation

of potential candidates that met the established criteria. Two interviews were obtained in this manner.

Data Collection

In all, nineteen interviews were held with six follow-up correspondences via email or phone call. Some of the demographic data of the principals, sorted by years of administrative experience, is represented in the following chart:

Table 1. *Candidate Date*

Gender	School	Level	Students	Years Admin	Years Teaching
Female	Suburban	Elem	350	3	13
Female	Urban	Middle	500	3	5
Male	Suburban	Middle	450	3	7
Female	Urban	Elem	400	4	12
Male	Urban	Elem	300	4	5
Female	Suburban	Middle	400	4	21
Female	Rural	Elem	400	4	7
Male	Suburban	High	850	4	19
Male	Suburban	High	600	5	12
Female	Suburban	High	1350	5	9
Female	Urban	Elem	200/100	5	16
Male	Suburban	Middle	800	5	9
Female	Suburban	Elem	600	5	17
Male	Urban	Elem	300	6	6
Male	Urban	Elem	300	6	5
Female	Suburban	Elem	400	8	9
Male	Suburban	Middle	500	8	8
Male	Suburban	Middle	700	11	15
Male	Suburban	Middle	800	22	10

As all of these principals were interviewed mid-school year, the number of years experience was rounded up to the next whole number for reporting clarity. To protect the anonymity of the candidates, the exact student populations are rounded to the nearest 50 students, as the specific student population numbers are available on public websites. Also, in the case of candidate 12, although he has eleven years of administrative experience, only ten of those are as a principal as he spent one year in the central office

administration building as the Acting Director of Human Resources. One additional

interview was conducted with a former principal who is now a math coach with regard to

his decision to leave the position of principal voluntarily. This interviewee declined to be

recorded and did not participate in the full compliment of scenario questions. His

demographic data is not included in Figure 3 as he is not a current principal. His feedback

is presented separately in chapter 4. The principals involved in this investigation

represent seven different accrediting institutions. Five of the seven institutions are located

within the same geographic area as the sampling pool and the other two, including one

out-of-state school, are less than twenty miles outside this area.

All of the interviews were conducted at the principal's school with the exception

of one. This principal requested a meeting at another school in the same district that she

would be at for a meeting on the day of the interview. The principals selected a time

convenient to them and the interviews were held their office or a conference room in the

office area. The interviews ranged from fifteen to ninety minutes in length. It was not

uncommon for the principal to be interrupted briefly by an administrative assistant or

phone call but only one interview had to be cut significantly short for circumstantial

reasons. In this case, there had been some smoke and a fire alarm just prior to my arrival

due to a middle school science demonstration accident near the office area. We concluded

our interview at the arrival of the Director of Buildings and Grounds to examine the

room. Two thirds of the interview questions were completed.

Each interview was initiated with a review of the informed consent form and a

brief discussion of the parameters of the investigation. The interviews were digitally

recorded with the permission of the interviewee. The confidentiality of the research was

explained at the beginning and close of each interview. Before the formal questioning began, demographic data was sought including years of service as a teacher, years of service as an administrator, accrediting institution, and education employment history. Data regarding the size of the student population and the grade level of students served was obtained from the Pennsylvania Department of Education web site in advance of the meeting and verified with the principal at the time of the interview.

In all cases, the principals were volunteers who were gracious with their time and were professional in their attention to the questions posed to them. The initial ten interviews set out to explore the phenomena of creativity in problem solving by asking the principals to describe how they would approach a series of scenarios. This approach was a fertile ground for the exploration of the problem solving of principals and several parameters quickly emerged. Most notably, job satisfaction and ethical considerations became significant areas of interest. To that end, a second round of nine interviews with new candidates was established to further explore these nuances. These principals were asked the same scenario questions as the initial ten interviews but specific clarification or additional understanding of the emergent themes was sought through additional questioning. Additionally, several of the initial interviewees were contacted for follow-up questions regarding ethical awareness and job satisfaction.

While useful information was obtained from nearly every interview, as I became more aware of the nuances of the investigation, I was better able to follow the principal's initial response with deeper, clarifying questions that provided better insight. The later interviews, built upon the foundation of the initial round, provided a clear and fascinating picture of the phenomenon of the decision making of principals. As Guba and Lincoln

note, the collection of qualitative data should stop when the data obtained ceases to yield new information (Guba & Lincoln, 1989). While each interview provided new stories and details, a consistent theme steadily emerged and was formalized.

It is important to allow the respondents to explain their experiences in their own words (McCracken, 1988). While initial prompts and follow up questions were provided, the goal was to be as non-restrictive during the interview process. At the conclusion of the interview, each participant was asked if she or he was comfortable with the responses and if there were any reservations about my completion of the investigation using the answers provided. Individuals were free to decline involvement at no risk at anytime before, during, or after the interview. No compensation was provided.

Data Analysis

Creswell describes the data analysis process in good qualitative research as "spiraling" rather than linear (Cresswell, 1998). Data collected is examined and then reexamined as new constructs and concepts come to light. The data analysis for this investigation involved this cyclical review of the interview data. Interviews were transcribed to a digital word-processed document. Two research assistants and myself completed transcription of all of the interviews. Interviews were transcribed quickly, often within one day of the interview. Of significant importance was the generation of accurate transcriptions. There are many challenges with producing verbatim versions of recorded interviews (Patton, 2002). There are intentional changes made to the transcript to make things more clear, such as the deleting of repeated words or distracting vocalizations. There are also elements including laughter or sighs that give context to the statements being recorded. To illuminate these elements, bracketed statements were

included within the transcript that contained the transcriptionist's notes regarding any nonverbal observances. There are unintentional typographical errors or misinterpretations that occur during transcription. Often, these have little bearing on the intention of the recorded statement but it is possible that key words can be altered or missed that distort the interviewee's intentions. To avoid these errors, transcriptions were reviewed during transcription by having the transcriptionist rewind and review approximately every 5 minutes. Additionally, transcripts were reviewed to seek feedback regarding the interview process, questioning technique, and the opportunity for follow-up questioning.

As Creswell (1998) suggests, the "spiraling" nature of effective qualitative data analysis involves a reflective reading of the data followed by descriptive classification and comparative analysis. This process often results in observations that provide a new lens through which the data can be reexamined. This initial review of the transcripts began with an attempt to identify and categorize the data for the four problem solving markers identified in the theoretical framework. As this research is exploratory, the open data coding was fluid and dynamic as suggested by Strauss & Corbin (1998). The initial interviews provided insight for the creation of new coding dynamics that led to an eventual greater understanding of the process of the problem solving of principals. The purpose of the qualitative researcher is to sift through the large volume of rich contextual data and look for themes and make meaning from these emergent ideas (Strauss & Corbin, 1998). These themes were evident and illuminating and are discussed further in the next chapter.

The identification of these themes was strictly performed under the umbrella of the research question. Specifically, this began as by looking at elements of the problem-

solving process described by the principals through the lens of the creativity problem-solving model. This initial process including identifying dialog in the transcripts using the codes related to the definition of the problem (code DEF), the framing of the problem (code FRAME), the linkages made between elements of a decision (code LINK), and the architecture of potential solutions (code ARCH). This coding allowed for the identification of additional elements. For example, it became apparent that creativity was tempered or enhanced by the participant's ethical considerations and empathetic impressions, and the research agenda was expanded to include an examination of these parameters.

After this cycle of identifying thematic codes and refining the categorization of the data, the final looping in Creswell's process involves looking at the aggregated data for themes, patterns, and prevalence (Creswell, 1998). For example, one emergent code that is empathy (code-EMP). The EMP code was applied to any instance where a principal displayed an empathetic consideration such as what another person might be feeling or how another individual might emotionally respond to a hypothetical situation. The coding of this construct allowed for the comparison of the number of responses that involved empathetic considerations with those that did not. Thus meaning begins to be made across the whole landscape of the data rather than simply extracting details from individual interviews.

Triangulation

In order to procure credible data regarding the principal's problem-solving process, three approaches were utilized during the interview. First, principals were asked to recall their most memorable decisions or problems from experience. Second, principals

were asked to respond to hypothetical situations devoid of personal context or any issues associated with recall. Finally, at the conclusion of the interview, principals were asked to share their most recent decision-making experience. By asking the principals for data from three separate contexts, a broader picture of the problem-solving process was provided.

While this process does not represent the traditional triangulation of qualitative research demonstrated by using completely different methodologies, the limitations of this initial exploratory research provided some constraints on the ability to do so. As mentioned previously, it would have been potentially valuable to observe a principal over an extended period of time to bear witness to the decision-making process as it occurs, but this would place the researcher in a position of being involved in matters that could involve sensitive personal and even medical information that is too intrusive to warrant consideration at this stage of research.

Data Checks

As suggested in Patton's work on qualitative research, a peer review of the analysis was used (Patton, 2002). This process involves other academics or related professionals in the opportunity to provide feedback regarding any claims or extensions the researcher makes. While the qualitative process has an embedded subjectivity, the peer review allows the researcher to become aware of unintentional bias, missed elements, and improper conclusions. Feedback was sought from a committee member, willing professors from principal preparation programs, and a principal not included in the study as part of the peer review process. Two Ph.D. candidates at a similar stage of research were asked to provide feedback as to the clarity of presentation. Throughout

these ongoing discussions, no significant concerns were expressed regarding the integrity, clarity, or credibility of the process

<div align="center">The Initial Coding Process</div>

Before developing the findings that bring this process to a conclusion, it is critical to understand how the data was initially coded and reviewed. The transcripts were initially coded for the presence of the four elements from the provided creative problem-solving model and each element was sub-coded for its position on the continuum. In an effort to explain the evolution of this research project, the following exchange serves as an example of the initial coding process. Each principal responded to several fictitious scenarios that provided the opportunity for the principal to demonstrate his or her decision-making and problem solving practice. The following interview segment was conducted with a fifth year principal from a suburban middle school with approximately 600 students.

> *Investigator*: I want to provide you with a fictional scenario and you tell
> me how you would get started.
> *Principal*: OK, shoot.
> *Investigator*: A parent has an appointment to meet with you this afternoon.
> During that meeting, he informs you that an older student is bullying his
> son. The family is sick of it and they are considering suing the school and
> the boy's family. What do you do?
> *Principal*: Sure, Ok. Well I have some questions like is this the first we're
> hearing about it. I mean don't get me wrong, the parent has every right to
> sue me or whatever – I don't care about that. But I want to know the
> history here. I mean, I, we take this very seriously and our committee
> works hard so I'd want to have the chance to let our system work. If the
> child is older we have peer mediation and that has been very successful
> here with our team committee here. And if this kid is bullying someone,

there's gonna be more than one victim.

Investigator: So what's your first step?

Principal: I'd ask for some time. I mean, give me a chance to look into this here and get the details.

Investigator: Where do you go to get more info?

Principal: Well… I go to my teachers first. What have they seen? What are these two like? What can they tell me and I'd want to talk to both boys but separately and if there's bulling going on, I mean, you can't under-estimate the fear of the victim [researcher's note: his intention and tone indicate to me that he means 'overestimate'].

The entire exchange was coded on the four variables of Definition (DEF), Framing (FRAM), Linkages (LINK), and Architecture (ARC) provided by the creative problem-solving model. For the purpose of this example and since this involves only with the start of his response, a focus on the Definition (DEF) and Framing (FRAM) parameters is useful. In considering Definition specifically, the entire first response would be coded under DEF as this describes exactly how the principal defines his problem. But now the DEF coded response must be placed on the continuum that describes the level of creativity employed. Did the principal attempt to redefine or more broadly describe the problem? In this case, he did not. The principal accepted the description that there was bullying present. In fact, his final response in the provided exchange also indicates that he is quite rigid in his definition of the problem. He's concerned for the victim's state of mind, he is considering what action he can take and how to best protect the bullied student. He is also aware of his resources and seems to have some pride in his building's effort to handle this type of situation in the past. He is by every indication a very thoughtful, intelligent, and caring principal, but at no point does he question the presented problem.

Both the initial and final responses in this exchange were coded as DEF and sub coded as DEF-RIGID. A tag was added indicating the question number in order to compare multiple principal's answers to a single question. Had the principal attempted to redefine or explore the provided problem, the response would have been coded as DEF-FLEX indicating flexibility in the definition of the problem. Here is an obvious example from the principal of a high achieving elementary school:

> The most important thing is to just let them talk. Don't be defensive, don't tell them that you are doing everything possible and just let them go, go, go and if they're in here, then they have an issue except it's probably not the only issue that they start with. And you know, it could be that her kid is getting bullied but bullying has a specific definition – it happens consistently over time and getting picked on once is not bullying – it's just some kid being mean, and, but this mom could have issues with something else like another parent or grades or me and I just let 'em talk until they start asking me questions.

This principal demonstrates an interest in redefining the presented problem. She does consider that there may be bullying as the problem presents but she also specifically mentions several alternatives including some unexpressed conflict with another parent, a disagreement over grades, or even a problem between the parent and the principal herself. When provided the bully scenario, her first instinct is that there may be something deeper here. In a follow up question during this exchange, the principal was asked if this is something she sees a lot. She responds, "Yeah, unfortunately people here don't always say want they really mean. My parents are smart and they try to manipulate the system sometimes so they get the right teacher or a different kindergarten bus." This principal presented herself as one who demonstrated considerable skepticism when presented with several of the scenario problems and her responses presented above would have been

68

coded with the "flexible" tag when identifying how she defined the problems presented above.

Occasionally, it was unclear if the response was leaning towards flexibility or rigidness. Things like re-stating the problem or discussing their building's anti-bullying work. These were simply coded as DEF without the "flexible – rigid" continuum indicator. An examination of the responses available for this particular question proves interesting. More than three quarters of the statements associated with the DEF parameter for this scenario were coded as DEF-RIGID or simply DEF. Only four responses were coded as DEF-FLEX. In addition to the statement above, the following three responses match the flexibility side of the continuum:

> *Response 1*: "Well, it could be possible that her kid is actually the one doing the heavy stuff and he's doing this to keep himself out of trouble. …you can't just go in guns a blaze at the student being accused."
>
> *Response 2*: "I want to know the details from the kids… from them directly. These things are never as simple as what the parents have in their own heads. I'd get them in separate rooms with my counselors and we start piecing things together… probably have them write it down, their story."
>
> *Response 3*: "Is the kid in the room with the parent? … Let's get the student in here now and get some specific details. Who's doing this and how exactly. Is there really intentional harassment going on here?

Most of the principals indicated that they would want more time to investigate and they would ask the parent for a specific amount of time ranging from "24 hours" to "a week or so." Most of these time-requests were associated with further investigating the bullying so they were either coded as DEF only or DEF-RIGID if it was clear from the context that the principal was still considering the original bully-victim situation as presented.

69

Additional Coding

The initial coding for the four parameters illuminated some interesting factors for consideration and additional codes and themes were explored. Specifically, the transcripts or audio files were coded for the presence of empathetic consideration, policy consideration, and ethical awareness. Each of these areas was also sub coded or tagged with indicators to allow for the aggregation of similar intentions. For example, when a principal referenced any type of legal guideline or governing statute, the phrase was coded as POL for policy. Each of these statements was then tagged as to whether the policy was being referenced as something to be adhered to (POL-ADHERE) or something that might be circumvented (POL-AVOID).

If a principal referenced the potential feelings or perspective of another individual, the statement was coded as EMP for empathy. Each empathetic statement was then further delimitated by the tags IMMEDIATE or EXTENDED to identify whether the principal's ethical considerations were applied to the persons immediately presented in the scenario or extended to others beyond the initial scope. For example, in the bullying scenario presented previously, if the principal referenced his or her own feelings about the situation, that statement would be coded as EMP-IMMEDIATE. If the principal made a reference to how the bullying incident may emotionally affect other students, the statement would be coded as EMP-EXTENDED.

While the coding regarding empathy was incorporated to collect information regarding emotional consideration, the ethical awareness coding was utilized to identify the principal's consideration of values and value systems that might be different from their own. To continue with the bullying scenario as an example, when a principal made

reference to the adherence to or defiance of some type of rule or norm, the statement would be coded as ETHIC to identify it as being associated with ethical awareness. If only the ethical stance of the principal or the established norms were considered, the statement would be tagged with the code LIMIT to indicate that the ethical considerations being displayed were localized or limited to the internal framing of the principal. However, if the principal considered the cultural or situational norms of someone else, the statement was further coded as ETHIC-EXTEND. Here is an example of a statement coded as ETHIC-EXTEND from the bully scenario:

> Sure, sure, the kid may be getting picked on and mom may be right here
> but I want to know what the bully kid was thinking and why because what
> if this is just the one that got caught and maybe this kid has been hurt
> earlier by this victim and he's just responding or sticking up for himself
> and he might be acting out of anger or fear and sure it doesn't make it
> right but it sure helps me understand what's going on a little better.

This coding process brought order to the vast array of responses that were collected during the interview process. While other codes were initially identified and explored, the above codings represent those significant to the findings of this investigation. Examples of other codings would include the development of concepts such as time-shifting and emotional engagement. Time-shifting was a code applied to several early interviews where it appeared that the principal wanted to delay providing a response in an effort to garner more time to do research or, in some cases, possibly avoid having to make a decision. While this construct may have application in future research, it did not present itself clearly in a majority of interviews and it does not play a role in the findings presented at this time. Additionally, one of the earliest codings applied to several interviews was an indication whenever the principal provided evidence that she or he was

emotionally involved in the situation. This coding later evolved into the Empathetic

Awareness code that is explored in the following chapter.

Phase Brakes

Researchers often divide their research into distinct phases of data collection such

as when later data collection is utilized to confirm or refute early findings (Mertens,

2000). There were no formal or pre-designated phases in this investigation but the

interviews can be divided into two groupings. The initial ten interviews were conducted

using the questions as described previously. After these interviews were complete,

several emergent themes became apparent. The subsequent nine interviews also utilized

the identical interview process of the first ten, but additional follow-up questions were

utilized to explore the nature of emergent themes. Additionally, several of the initial ten

participants were contacted via email or phone to clarify their feedback regarding these

new elements.

Researcher as Instrument

Researcher Disclosure

Purely phenomenological research is effective only when the researcher is as

transparent as possible regarding his or her biases and the implications for selection of

sensitizing concepts (Mertens, 1998). Professionally, I have been a public school

principal as well as having served to help select, induct, and remove principals in my role

as central office administrator. I am a white male of middle class socio-economic status

with nineteen years of professional experience in the public school system and have

recently transitioned into academia as an assistant professor in a university that hosts a

principal certification program. This research was conducted in my pursuit of a Ph.D through a different university.

In the interest of full disclosure, a majority of my professional experiences have been in a primarily quantitative environment. With an undergraduate degree in chemistry and having taught in the physical sciences for ten years, my greatest area of comfort is with measurable, causal relationships. This research project represents my third formal venture into the world of qualitative research. While I have attempted to refrain from making causal determinations, my personal disposition at the start of this endeavor was that creative problem solving in the job of principal was a desirable process. I felt that creativity applied during problem solving was beneficial to those involved. The results of this research have tempered that bias somewhat in that the problem-solving process of principals is more complex than the presence or absence of creativity. The exploratory and constructive nature of qualitative research was critical to obtaining the findings presented in the next chapter. However, it is my hope that the constructs that have been defined during this research may prove valuable for the generation of variables to be considered in future, quantitative investigations that further explore the problem-solving process of principals.

Prior Studies

Prior to this study, I performed two additional investigations regarding principals. My first formal exploration of the position of principal was a detailed case study designed to understand how a serving principal recalled her preparation program and its effectiveness to prepare her for the job (Landis, 2006). My research question was designed to explore how the principal remembered the certification experience and what

73

values were attributed to the different components of this process. These components included leadership theory, class work, project-based experiences, and the internship. The internship field experience is the formal time in the certification process where the principal candidate apprentices with a serving principal. The principal identified her field experiences as the most valuable. While she also reflected positively on the nature of her course work, she stated, "I think that the field experience is incredibly valuable. I had plenty of middle school [experience] but it made me get out there and experience both sides where I had to experience elementary" (Landis, 2006). When asked about what could have been done to improve the effectiveness of the program, she indicated that classes in managing adults that might be "found more in a business or managerial type setting" would have been of interest to her. When asked to describe some of her more difficult situations as a principal, all of the examples she provided centered upon her interaction with difficult adults, not students.

This research laid the groundwork for a formal program evaluation for a university principal certification program (Landis, 2007). During this investigation, my interviews with principals were centered upon understanding how serving principals who were graduates of this certification program felt about their preparedness for their job. The interview questions involved principals sharing some of the more difficult aspects of their daily job duties and correlating these recounts with their certification experiences. There was no formal intention to explore the process of problem solving in this research. However, the transcripts are filled with rich examples of principals struggling with the responsibility of making decisions.

These early research experiences coupled with Arthur Levine's call for reform (2005) led me to want to improve the principal preparation process. While exploring ways in which to most effectively do this, several prominent researchers in the field were contacted including Thomas Creighton, whose work is referenced in the previous chapters. Dr. Creighton, who was aware of the Levine report and its call to seek lessons from the business world, suggested that the work of Roger Martin might be useful in the examination of principal preparedness (Creighton, 2008). After making contact with Dr. Martin, the initial parameters of this investigation were developed.

<div align="center">Limitations of Study</div>

As Mertens (1998) suggests, it is impossible to create educational research that is infallible. When comparing the relative strengths and weaknesses of the choice of research designs available to a researcher, interview data, and particular interview data from open-ended questions may be considered less desirable and potentially one of the weaker forms of research investigation (Trochim, 2000). Some concerns noted in the literature are lack of rigor and a limited basis for generalization or transferability (Mertons, 1998; Trochim, 2000). Various aspects of methodology and other contextual issues are presented as follows:

<div align="center">*Threats to Credibility*</div>

Threats to internal validity are most applicable in quantitative investigations involving the determination of cause and effect between dependent and independent variables. While there is no causal claim in this study, it is still critical to ensure that the research is trustworthy. In qualitative research, the internal validity of the study is often discussed in terms of "credibility" (Trochim, 2000). Since this type of investigation is

constructivist in nature, the researcher is not attempting to define a universal truth. The researcher must work to summarize and describe the perceptions and subjective realities accurately. Trochim goes on to say that the researcher must strive to be sure that the data presented is "plausible" and represents a richly descriptive snapshot of the interviewee's perspective (2006). Truth is best defined by the participants themselves because it is their perspective that we are most interested in (Trochim, 2006). There are several methodological considerations that may impact the credibility of this study.

<p style="text-align: center;">*Reliance Upon Recollection*</p>

This study deals with principal's perceptions regarding their problem solving and decision making. Because the principals are self-reporting these experiences, the credibility of the response is limited to their perception of the events (Maule & Villejoubert, 2007). It is possible for interviewees to intentionally or unintentionally to embellish or simplify their recollection. The first method called upon in this investigation was to have the principals recall information regarding their experiences with decision making and problem solving from memory. This process may prove unreliable, as it requires principals to recall information from past events and to organize them in some linear fashion for the researcher. This recollection can be clouded by time, confused with similar events, or even unintentionally distorted in the process of recollection. It is also possible that principals did not present the information as they recalled but rather as they wish to be viewed by the researcher. Research into recall memory suggests that the internal decision about what to recall is often driven by the greatest extremes in emotion associated with those memories such as anger, shame, success, etc. (Hundal & Horn, 1977). The process of recall-only data collection may then provide the interviewer with

select data about the decision-making and problem-solving process in these emotionally charged situations. Therefore, to complement the principal's personal recollection process, a series of simulated scenarios were constructed.

Simulated Problem Solving

The scenarios presented to the principals during the interviews were provided to ascertain the principal's problem solving strategies without the influence of the interviewee's memories or the issues associated with recollection. However, this introduces a level of sterilization to the problem-solving process that may impact the investigation into the research question. As discussed in previous chapters, the decision-making process of principals is highly interpersonal. Simply put, the scenarios provided are contrived, as any real decision that principals make as a component of their jobs would be rich with contextual, historical, and personal data. To capture the natural problem-solving process of principals, one would have to follow and systematically record the daily interactions and decisions made of the principal *in situ*. At this time, the level of intrusion into the personal data associated with such a venture would prove highly problematic.

Time Constraints

Due to personal and professional obligations, these interviews needed to be completed in a relatively short period of time. All interviews were conducted between January 30th and March 5th, 2009. On several occasions, multiple interviews were conducted on the same day. While I conducted all of the interviews, the time constraint of the data collection process also led me to seek the assistance of two individuals in the transcription of some of these interviews.

Researcher Involvement in the Profession

As stated previously, I think that my status as a former principal allowed a certain degree of trust to be present in these interviews even though I did not know the participants prior to this investigation. However, having served as a principal in the central Pennsylvania area, there was always the distinct possibility that there could be persons or events that would have crossed both of our paths. For this reason, discussion outside the boundaries of the interview guide was limited. However, it is possible that principals were restrained in their recollection of previous events in an effort to protect the anonymity of those involved. In one case, a principal interviewed recognized me as the presenter at a technology conference that he had attended previously, but there was no interpersonal connection at that time.

Finally, as a former principal I believe in the importance of the job. While I attempted to be as neutral as possible in my questioning, I often found myself nodding or smiling during a principal's recollection of a particular decision or problem in a manner that would suggest camaraderie. While it is possible that this produced a certain amount of tacit trust into the process, it is also possible that the interviewees would have provided different responses to a researcher that had no professional ties to the position. Participants may have avoided going into some details of their decision-making process assuming that as a principal, such details would be unnecessary. They may have formally articulated details or definitions to someone whom they believed did not have any experience as a principal.

Threats to Transferability

By definition, qualitative research is situated into the rich details of context.

However, it is critical that qualitative researchers at least address the transferability of their data (Patton, 2007). In this case, the researcher is a former principal in the central Pennsylvania area who interviewed principals in the same geographic region. This serves to limit the transferability of the results beyond this small sampling. However, the review of literature indicates that nearly all principals have almost identical certification experiences nationwide (Hess & Kelly, 2005) and that recent national efforts to standardize accountability elements in public schools have brought this shared experience to all public school principals (NCLB, 2001).

In order to transfer these results to other contexts, the person wishing to do so must make certain judgments regarding how sensible this transfer is (Trochim, 2000). In this study, there are several characteristics from the participants that may limit the transferability of this study. Specifically, despite the fact that 243 of Pennsylvania's 501 school districts are classified as rural (Rural-PA, 2009), only one principal from a rural school responded to the interview call for this study. Also, while a published average for the number of years of administrative service for a principal was unavailable, the average years of service for this sampling seem small at 6.1 years. Only two principals had administrative experience of more than ten years. As reported previously, the NAESP and the National Bureau of Labor Statistics both indicate that there is a projected mass retirement of principals nationwide as, "a large proportion of education administrators are expected to retire over the next 10 years (BLS, 2007).

The principals interviewed in this study presented themselves as professionally interested in the process and participated in all questions without any discernable reservation. However, since the principals in this study self-selected their involvement, it

is possible that they represent a particular characteristic or type of principal and therefore this data may not capture the decision-making process of all principals equally. Finally, each state approaches the education of its school age children slightly differently using a diverse configuration of schools, districts, and curriculum delivery. The participants interviewed for this study are all subject to the unique political and historical conditions of serving in Pennsylvania schools.

Ethical Considerations

This study involved the use of human participants and was therefore subject to Institution Review Board (IRB) review in order to account for the safety and protection of the participants in this study. The Indiana University of Pennsylvania's IRB committee provided approval on December 10, 2008 for a period of one year. The IRB documentation is provided in Appendix E. The IRB procedures and the confidentiality of the entire process were explained at the start of each interview. The participants were provided two copies of the informed consent that can be found in Appendix E. My contact information and the contact information of the supervising faculty member were also included in this document. Each participant signed a copy of the informed consent form that is currently retained in a locked filing cabinet. All audio recordings during the interview process were digitally recorded and stored temporarily on a computer hard drive. After the interviews were completed, these digital files were copied to DVD and the original files were permanently erased using an overwriting procedure. This DVD is also stored in the locked filing cabinet. All participant names, references to school names, and any other personally recognizable information were stripped out during the transcription so that the final word processing document contains no identification

elements. A copy of these transcriptions is located in the research file with the other elements discussed above. These transcriptions are also backed up to an encrypted digital file on a portable hard drive located in the researcher's office. Only the signed informed consent forms contain the actual identity of the participants.

Summary

This investigation is an exploratory, phenomenological research conducted out of a constructivist paradigm. Nineteen principals representing various levels of experience and instructional levels were interviewed over a 38-day period to explore the research question, what factors describe the problem-solving process of school principals? These interviews were transcribed and coded to determine themes that address this question. The interviews can be described as occurring in two phases; the first phase representing the initial ten interviews and the second phase involving a focused clarification process during the interview to seek out information regarding job satisfaction and ethical awareness. The findings of this investigation are detailed in the following chapter.

CHAPTER 4

RESEARCH FINDINGS

This chapter presents the findings from the interview data with respect to the research question, what factors describe the problem-solving process of public school principals? The chapter begins with a presentation of the initial findings that describes how the interview data were examined. Three distinct themes emerge that describe the problem-solving process of principals and an introduction to each of these follows. In order to richly describe the context of these themes, several interviews are presented in detail that provide contrasting approaches to problem solving. Finally, the supporting evidence for each of the three themes is presented in the light of the full collection of data.

Initial Findings

Nineteen principals and one former principal were interviewed for this study and the data collected from the interviews are extensive. The problem-solving process was explored by having principals recall examples of problem solving from their professional experience. Each principal shared at least one example and some shared as many as four providing 41 recalled problem-solving situations. In order to provide balance to the potential issues associated with recalled memories raised in Chapter 3, the principals were provided a series of hypothetical scenarios that asked the principal to describe how she or he would begin to make a decision. The first four scenarios used in this investigation are applicable to any principal serving in either the elementary or secondary level. An additional level-specific scenario was also provided allowing for each principal to respond to as many as five scenarios. In one case, an interview was cut short due to

circumstance and two scenario questions were not addressed. In an early interview, a scenario question was inadvertently omitted during questioning. In all, 92 scenario questions were asked. These combined with the 41 recalled situations provided 133 initial decisions for analysis.

Application of the Model

Problem solving is an act that precedes decision making. In some of the earliest work in this field, Dunker (1945) describes decision making as the selection between seemingly fixed alternatives and problem solving as the creation or consideration of new alternatives before rendering a decision. The psychologist Arp (2005) explains that the visualization of potential new scenarios is the foundation of creative thinking and Lonergan (2004) couples to this the ability to critically evaluate these visualizations. Therefore, creativity in problem solving occurs when the decision maker goes beyond the initial choice of a presented decision and considers and evaluates additional alternatives. To describe this process fully, a model is utilized that describes creative problem solving along four distinct elements.

The first element of the model examines the potential starting point for the problem-solving process by describing how the principal defined the problem. The decisions presented by the principal were coded as "rigid" (DEF-rigid) when there was no attempt to redefine the problem and "flexible" (DEF-flex) when alternates were mentioned. The second element isolates how the principal frames the problem. Framing refers to the variables and the values ascribed to these variables that the principal considers. Inclusive framing (FRAME-inclusive) is evidenced by the principal seeking out variables not initially presented in the original decision and reductionist framing

83

(FRAME-reduction) refers to when the principal restricts the framing to only the variables presented. In the linkage element, the relationship that the principal makes between variables or to other systems is examined. Singular linking (LINK-singular) refers to simple, cause-effect relationships along a linear path while problem solving that demonstrates multiple linkages was coded as "Link-Multiple." Finally, when the principal articulated potential resolutions or solutions, the architecture element of the model describes whether the principal described a single possible outcome (ARCH-singular) or more than one (ARCH-multiple).

Eighty-one of the initial decisions reviewed in this study did not employ any level of problem solving. A majority of decision making in these situations demonstrated a tendency towards efficiency. Most often, the principals accepted the problem as described and provided a quick or concise response. In some cases, the response was so efficient that there was no opportunity for decision making or problem solving at all. For example, the first scenario question involves the principals addressing a claim of bullying. One principal said, "I'd turn that over to our anti-bullying team right away." Another was quick to invoke a similar course of action by stating, "we have a whole set-up for that. The parent's question would be directed right to the grade leader." According to the creative problem-solving model, the process is frozen right at the onset. In both of these examples, the Definition parameter is sub coded "rigid" and the other parameters of the model are not applicable. There is no problem solving in these examples. In order to explore the nuances of the problem-solving process in these cases, follow up questions were asked to probe for additional details or to force a decision other than to simply defer

the situation to another system. In the first example above, the principal was asked to clarify how he would respond if the anti-bullying team was not available.

> …is this the first we're hearing about it? … I want to know the history here. I mean, I, we take this very seriously and our committee works hard so I'd want to have the chance to let our system work. If the child is older we have peer mediation and that has been very successful here with our team committee here. And if this kid is bullying someone, there's gonna be more than one victim.

While still alluding to the team and the structures within the school to help with bullying issue, the principal does move towards problem solving. In this case, he does not attempt to redefine the problem (DEF-Rigid) but he does start to expand the framing of the decision with the statement, "there's gonna be more than one victim." Through this type of follow up questioning and probing, the opportunity to explore the problem-solving process was expanded.

The scenario questions were useful in that they provided the opportunity to compare principal responses to identical situations. For example, one of the scenarios presented asks the principal to respond to a seemingly trivial situation. In fact, it was presented as, "a trivial problem brought to you on a busy day." In this situation, a teacher has made an appointment to complain about her assigned parking place. She has seniority over many of the faculty in terms of experience but her parking spot is in the back of the lot under a tree with falling branches and sap. She wants a better spot. Principals were initially asked how they would proceed with this decision. With only one exception, every principal responded with some variation on a facilitative leadership theme. Some examples include:

- "I believe strongly in group decision making"
- "I'd probably take this to my teachers, I like to lead from the middle."
- "This isn't something for just me, I'm just part of the team. We need to get this out in a faculty meeting."
- "No problem is trivial, if a teacher has a problem, we have a problem. We should get some interested folks together and create a better system"
- "…sure it seems trivial but it's not trivial to her now is it. If I let this go, it's going to bite me on the ass. I need to get this in front of the teachers for their input."
- "She may be older or need help. We need to work as a team to get things better."
- "In the short term, I'd give her my spot. Then let's work on getting something together from the whole group."

Nearly everyone responded with some allusion to, or outright call for, group decision making. The one exception was a principal who indicated that this was probably something for the union to be involved with since it may include teacher seniority. This directly corroborates the work of Hess and Kelly in that nearly all principals study current educational leadership theory that places heavy emphasis on collaborative leadership (2005). While these scenario questions provided some insight, the diversity of the personal recollections of decision making provided significant opportunity for the exploration of the creative problem-solving process.

Principal Recollections of Decision Making

There was more creativity demonstrated in situations where the principals recalled their personal decision-making process from previous events. Specifically, principals were asked, "Please identify a difficult decision that you have had to make as a principal." Most principals were dealing with something difficult right at the moment. In

fact, in one interview with a suburban elementary school principal, that situation was her

next appointment after the interview. Usually, the principal would go into the cursory

details of this recent situation and a series of probing questions followed. In some cases,

the principal would provide simply framed decisions where they had to make a difficult

choice. One principal recounted her superintendent's edict last year that one of the fourth

grade teachers had to be furloughed. In this case, acting on the decision was personally

difficult but the principal's process for making a decision was easily defined. The teacher

with the least amount of seniority was dismissed. There was a policy in place and it was

followed with no problem solving.

In other circumstances, principals were able to provide examples that included

changing the parameters of the decision. For example, a middle level principal described

a decision that she was presented with earlier in the month when she was told that the

supply money budgeted for the remainder of the year was severely cut due to a budget

shortfall in another area. The principal was told that $1200 dollars was removed leaving

less that $200 in the account. This account is used to purchase the general teaching

supplies such as chalk, paper, markers, and pencils. The principal had to decide how to

spend the limited funds to meet the instructional needs. The principal describes the

situation:

> Principal: The thing about this is that the teachers see it as a personal attack. The
> reason they [the administration] goes after the supply budget is that they know the
> teachers will buy their own stuff if they have to. At least that's what the teachers
> think.
> Investigator: Is that the case?
> Principal: Well the truth is, we have very little money that's not specifically
> accounted for like there's money for copier contracts and yearbook printing and

stuff and you can't just take that money because it's committed. Supply monies aren't committed to a specific thing and so that's why it's always the first to go so I don't think it's intentional but I can certainly see how it feels that way.

Here we see the principal expanding the framing parameter to include the feelings of the teachers and the intentions of the administration. This allows her to consider the teacher's feelings when making her decision. She shares, "you just can't announce something like that and walk. You'll really make some angry campers." When asked what she decided, she said:

I didn't. Not at first. I just sent out a memo that I was trying to get a handle on our supply situation and I asked that if anyone had over-ordered something and was sitting on a stockpile, would they bring it to the office please. God do teachers hoard stuff, but we were able to put together some of the essentials. My plan is to hold out ordering anything as long as possible and then use what monies I have left to fill in. If we run out late in the year, it's sort of expected.

The principal here essentially redefines the problem from, how do I spend the $200 to, how do I keep my teachers from feeling attacked? The inclusive framing changed the problem-solving process to be inclusive of things not explicitly presented with the initial decision. These implicit elements are uncovered through the inclusive framing.

In a personnel situation presented from a different principal, a superintendent had indicated that two aides would have to be dismissed to cut the budget. The principal was charged with deciding which aides were least necessary and then firing them. Educational aides are paraprofessionals, usually with a high school diploma or minimal college experience that assist certified teachers. Aides can be found assisting individual teachers, helping special education students, providing extra supervision for lunch, and a variety of other tasks. In this case, the aides had starting salaries close to minimum wage but there

were health care benefits because they were full time employees. The principal had

twelve full time aides that she needed to reduce to ten.

> Investigator: How did you decide?
>
> Principal: Well, I met with each aide individually and told them that we were in a
> budget crunch and that some support positions may be eliminated and was there
> any chance that they would be able to give up their healthcare benefit? I was
> trying to find out if maybe someone had a spouse with good insurance that maybe
> didn't need it, you know? I really don't want to fire anyone… it's bad for morale
> and people get angry.
>
> Investigator: Were you allowed to do that? I mean, did your super know?
>
> Principal: Well, legally we're not unioned here with our support people so I can
> talk about that kind of stuff, you know? But I didn't exactly share my idea up
> front with my boss, no.
>
> Investigator: And… so…
>
> Principal: Well I did find two ladies who were willing to drop the health benefit.
> The problem was that it wasn't quite the same as eliminating the two positions. I
> mean we could save a few thousand but not quite what the business manager
> wanted. So I restructured another two aide positions into two part-time slots or I
> guess four slots. Part time positions are not eligible for healthcare benefits. And
> the two aides that I split were actually better that way for scheduling, I could
> overlap them so there was coverage during lunch for the library which is
> something we always wanted.
>
> Investigator: So in the end, how did that work out?
>
> Principal: Well two aides saw a reduction in hours and a loss of bennies [health
> care benefits]. That's not the two that gave it up on their own… this was a hard
> hit. But no one was completely fired. One did quit because she needed the
> healthcare but actually, that was OK for us. We got coverage for the library, kept
> the original two aides, and kept everyone, really.

In this case, the principal redefines the problem. When asked to decide whom she will

fire, she shifts the decision towards a broader definition and defines the problem to be

about saving money. This is coded under the "definition" parameter and sub-coded as "flexible" (DEF-Flex). She expands the framing the problem to include variables such as finances, health benefits, and job descriptions (FRAME – inclusive). She makes linkages to job efficiency and the emotional climate of the building (LINK – multiple). She begins to describe the architecture of a potential solution that adds another alternative to the decision of who to fire (ARCH – multiple). By all levels, this is an example of creative problem solving. As presented in the previous example, the observations that the principal makes can be categorized into the implicit and the explicit. There are facts or considerations that are explicit. These are the elements that she starts with – the request to fire two aides and the list of aides. However, there are also considerations that are implicit. While not directly presented, the creative problem-solving process brings them to light. In this example, the implicit would include the budget numbers, the cost of health care, and the morale of the building. It appears that her justification for starting this process is the fact that she was concerned about the emotional impact on the aide and the building.

It is important to note that this investigation is not evaluating the efficacy of the process. No line of inquiry was initiated to determine if the principal's solution generated a more favorable outcome than simply firing someone. This study is limited to understanding the means to problem solving, not the ends. However, in this case, and in several others that are described in the following section, it was the expansive thought along empathetic lines that fostered the creative process and allowed for additional alternatives to be considered. And this is the critical turning point of the investigation. What provides the most significant insight into understanding the problem-solving

process of principals is not the presence of creativity, but the process behind its inclusion or exclusion. This understanding is presented in three emergent themes from the data.

Emergent Themes

There are motivations and influences that effect whether the principal will engage in creative problem solving or not. When looking at each parameter from the model, the creative action of the principal is influenced by other acts, both intentional and unintentional. It is at this level, the moment right before the potential application of creative or generative thought that the understanding of the problem-solving process of principals begins to take shape. The data provide a window into both the intentional and unintentional actions of principals during problem solving that are explained in the following sections. Within all of the contextual diversity, three distinct themes emerge from the data collected.

Policy Shielding

Policy shielding is the process by which problem solving is avoided through the application of existing policy or law. As discussed in the review of literature, when a decision must be made, the act of problem solving is the intentional process where additional alternatives are generated. If a policy exists that provides specific direction for the decision, then problem solving is avoided through the invocation of policy. For example, Beth, a principal in this study, described a recent decision she had to make regarding a student who did not have a permission slip to go on the fifth grade trip. Beth indicated that she had to make a decision to let the boy go on the trip or not. According to the principal, the district policy clearly states that written permission must be obtained for all students leaving school property for a field trip. Policy shielding would be the act of

using the existing policy to make the decision – there is no signed permission, therefore the student does not go on the trip. The policy shields the principal from engaging in problem solving. Policy shielding avoidance would be the act of problem solving to determine alternative courses of action outside the initial binary decision. In this example, Beth considered several alternatives including possible ways to obtain a signed permission slip before departure and even ignoring the policy and sending the child on the trip. Beth recounts:

> I know dad knows about the trip. We were just talking about it last week because he had to back out of being a volunteer. There's only one, fifth grade trip, you know? It seemed stupid to not let him go when I know his dad wants him to go but mom and dad are separated and I don't have permission from either of them but I have no reason to think they don't want their kid on that bus so I try and call dad, then mom…

This illustrates a principal avoiding policy shielding. The principal is justifying her engagement in some cursory problem solving to get the child on the field trip despite not having a signed permission slip. The interview data suggests that sometimes policy shielding is done intentionally as a means of avoiding difficult interpersonal situations and sometimes policy shielding is engaged in simple deference to the policy because of the nature of the situation. The following sections show these intentional and circumstantial applications of policy shielding in the context of principal decision making and problem solving.

Delocalized Empathy

Delocalized empathy is the process whereby a principal sympathizes with individuals beyond the immediate actors present during a decision. Delocalized empathy

is a specific type of framing. Framing, as presented in the review of literature, is described as the collective of the variables under consideration and the value ascribed to those variables. All of the decisions presented in the scenario questions and nearly all of the personal problem-solving accounts describe decision making that involves other people. The consideration of the personal motivations or feelings of these other individuals constitutes empathetic action. The interview data show consistent evidence that principals in this study nearly always discussed emotional or personal consideration of the persons immediately involved in a decision; a process refered to as "localized empathy." For example, in the scenario question regarding the fifteen parent requests for a teacher change immediately before school, the following responses are indicative of localized empathy:

- "Obviously these parents think they are doing something good for their children. We can't forget that."
- "You have to be careful with angry parents here. If these fifteen band together, they can make the teacher's life miserable."
- "This is pretty common. I'm not going to have any teachers on my staff that aren't top-notch so if this happens here, I know the parents are misinformed. Plus, what am I gonna do? Move fifteen kids out and not replace them? That just makes a bigger problem.… These folks aren't going to be happy with me at first, but over time, my teacher will demonstrate that things are good."

In each of these examples, the principal is considering the state of mind of the parents or the teacher. Both the teacher and the fifteen parents are directly involved in the decision that needs to be made and therefore, the above are examples of localized empathy.

In contrast, some principals also considered individuals or groups of individuals

outside the immediate situation. In this example, delocalized empathy would be evidenced by considerations of individuals or groups of people that are only tacitly related to the decision. For example, the first principal quoted above went on to say,

> You have to be careful not to set a precedent that you don't want to keep. Once one parent hears you can change teachers with a phone call – bingo – other parents are going to want changes too and not just this year, the next and the next and the next…

This demonstrates that the principal is projecting consideration to parents not involved in the current decision directly. Instead of limiting empathy to the teacher or the parent, she includes other current parents, as well as future parents in the years to come. The delocalized empathy allows the principal to bring additional salient points into the problem-solving process. The empathetic ability of the principals in this study is impacted by the third emergent theme, ethical inclusion

Ethical Inclusion

Ethical inclusion is ability to consider an ethical stance beyond the principal's own framework. As discussed in the literature review, people approach decisions with their own values and norms in their framing of the situation. If the principal acts solely from these norms, the decision-making and associated problem-solving process are not ethically inclusive. If the principal considers the values and norms of others involved in the decision, then the principal's problem solving can be described as ethically inclusive. Returning to the principal's description of her decision-making process regarding the fifth grader without the permission slip, ethical inclusivity can be shown by the principal's statement:

They're both a little scatterbrained [the parents]. They've only been separated a
few months and they still don't have a routine down. Who knows, they both
probably think the other sent it in. They're just not that concerned with details,
details, details.

The principal is mindful of the parents' emotional state when she observes that they are

potentially distracted and not able to consider "details." The statement indicates that the

principal is inclusive in her ethical framing of the problem. This consideration of another

individual's ethical framing allows the principal a greater degree of delocalized empathy.

In fact, all three constructs presented relate to one another when describing the problem-

solving process of principals. Before describing additional supporting details for the

development of ethical inclusion, delocalized empathy, and policy shielding, the three

constructs are explained below in context by looking at several principal cases in detail.

Understanding the Problem Solving Process In Context

There are nuances and complexities involved in the development and

understanding of the three findings presented. In order to develop a deeper understanding,

it is useful compare contrasting approaches to the problem-solving process. This section

introduces several principals and their decision-making and problem-solving strategies.

Principal 1: Roger

Roger has thirty-two years experience in public education and the last twenty-two

have been as an educational leader. Visiting Roger's office is like visiting a movie set for

an American public school. The secretary is protective of the principal's time and quickly

sizes me up as an unknown – perhaps a textbook sales person or new parent. Upon

introduction and my indication of a standing appointment, I quickly slide onto the

approved list and receive a warm welcome and an invitation to take a seat next to a

terribly disgruntled-looking teenage girl. Roger emerges two minutes before our

appointed time and he quickly shakes my hand with a broad smile and damagingly firm

grip. He asks my pardon while he meets with the young lady. Roger returns not two

minutes later, exactly on time for our meeting.

He introduces himself and is quick to acknowledge my personal research work

harking back to his own dissertation several years ago through a distance-learning cohort.

His willingness to assist me in my research appears as a genuine, personal contribution to

the body of knowledge in general and my own personal scholarship in particular. He is

articulate, extremely well presented, and looks the part. He takes off a suit jacket and

rolls his cuffs as we start the interview. He has the bearing of someone in charge of more

than just this building. In fact, in his recollection of his professional history, he mentions

that he has had to turn down offers of assistant superintendent and superintendent several

times during his career in order to keep this job. When asked why he stayed away from

the superintendency, he recounts:

> I love this job. It's the kids and all. The politics of central office are so far
> gone from what actually needs to get done that I don't think I could stand
> it. It's like… I've been doing this for so long that the money is nearly as
> good as a super [superintendent] and this is much better. No board
> members, no contract, just me and my building.

Roger's office is large and recently remodeled. His certificates and diplomas have

a place of prominence directly behind his head. This middle school is well

respected, performing well on standardized tests, and is considered one of the

flagship schools in the area's Intermediate Unit according to other principals.

Roger has been in this particular principal position for more than ten years.

Roger is not shy about the interview. He tackles each question with

confidence. He does not ask for clarification or explanation. He sizes up each

question with a momentary reflection during which he fiddles with a pen. Then he

places the pen down and provides his answer with deliberate confidence. This

cycle plays out repeatedly even during follow up and redirected questions. It is

Roger's description of how he would address the Spanish I scenario involving a

parent request for a student with a GIEP to start Spanish I a year early, that

provides significant insight.

For those not familiar with the culture of the Gifted Individualized Education Plan

(GIEP) students and their parents, my experience has been that principals often express

displeasure with the demands and requirements of these programs. The GIEP is a legal

document that serves to identify a child with a learning exceptionality and indicates he or

she is someone with unique aptitude in a particular academic area. Often this requires the

principal to provide additional or accelerated work for the student and frequently a

modified schedule is required. The nature of the relationship between GIEP parents,

students, and administration is complex in that these students are often responsible for

exceptionally high standardized test scores while at the same time requiring additional

resources and scheduling considerations. The question asked regarding the Spanish I

waiver is designed to pit these elements against one another. Roger's response follows:

> *Interviewer*: I notice that your students start World Language instruction
> in eighth grade. What if a parent came to you and formally requested that
> her GIEP student be allowed to take Spanish I in seventh grade as the
> child has demonstrated a strong interest and aptitude in Spanish after a
> family trip to Mexico.
> *Roger*: [after about a ten second pause] No. Well [laughs] I wouldn't say it
> like that to the parent but that won't work. You see, you, see… there's a

process here that is tied to a bigger picture. What we do here isn't alone, in isolation. We tie into the high school flow. In 7th grade each child takes an exploratory language course so that they get a taste of each of the languages and then they chose one of those four for their high school. There is no world language teacher to teach a full language one [first year language class] in 7th grade because they all teach the exploratory. To be added to one of the 8th grade language I courses would mean he would have to take it 6th period and that's opposite something else… PE or shop… tech-ed, or something. It just doesn't fit. Plus, I've never seen any GIEP that says a kid is gifted in Foreign Languages, ever. Many times parents think that the GIEP is a free ticket to a personalized schedule. Not so, not so… it has to be related to their giftedness. So if a kid is gifted in math, I can accelerate him. I can do that, we have the classes to do that. But I can't just throw in a foreign language a year early. It breaks everything else.

Interviewer: You said that you wouldn't be abrupt with the parent. So how…?

Roger: Well, with GIEP parents, the trick is to get them to think it's their idea. [laughs] that's bad… [laughing] but it works. As soon as you asked the question, I knew it wouldn't fit. Even if I wanted to do it, I, we just don't have the personnel or time in the day. That means if we were to do it, just force it in there, then something has to give. So I would start with that… I'd actually pull out a working copy of the master schedule and show the parent that if we drop in Spanish I, what gets pulled and then let them see the cascade… it will just fall apart. It's not me being the bad guy, it's the system [he quotes with his fingers on the word "system"].

Interviewer: But what if it the parent was OK with the child giving one of those things up that you mentioned, like tech ed or PE.

Roger: Well I'm sure they would but that's not something we get to decide. The board [the school board of education] says that a student has to take so many things in each grade to go to the next. Some of those are

98

state law – like gym. You can't just not take PE [physical education]. The state will come in here and you'll get fined. Look – these programs, like the foreign languages, are designed by committees of people that look at a lot of things. If you want to change the whole system, it should be more than just me or just the parent. Who am I, who is this parent, to undo the work of these groups and the board and these people who did the work to set things up?

Interviewer: What if the parent didn't bite? What if they keep pushing? You know the type… maybe mom is a lawyer.

Roger: Hell yes… we have those [laughs]. Happens all the time. In that case, I might try and find a way to appease things. Can I get them some software or some time with the teacher in a summer enrichment program. It's not that I don't want the kid to explore an interest. But we're a public high school. We have limited resources and teachers. I'd rather spend the money to get some kid who can't read in English more time with his teacher than to get this kid ahead in Spanish. That's when mom or dad has to step in and do some enrichment. Unless the kid is gifted in languages and like I said, I've never seen that.

Interviewer: What if the GIEP said that? What if the GIEP said that he should have access to accelerated World Language classes?

Roger: Not in my building. The principal is always a committee member on the GIEP team. Even my assistant knows not to let program changes into a GIEP.

Interviewer: OK, so it's a transfer from another district…

Roger: Huh… well the short version is that we can't. I mean if the IEP said he had to be flown in every morning in a helicopter, we just can't. I'd probably turn it over to our Gifted Education Coordinator for some direction. It would probably wind up being some sort of after school or extra program… maybe over lunch. I'd hope to convince the parent that the program we have here is very solid and I don't want any of my kids missing out on anything.

And Roger probably could convince the parents that their original request is not in the best interest of the child. And he's not being deceptive or shirking additional work. He projects himself as someone who wants what is best for his students. His longevity as a principal may be a result of this interpersonal gift for communicating or his time in office has helped him develop this skill. Whether it is the chicken or the egg, Roger's abilities with people come out strongly even in this hypothetical discussion.

Roger is quick to go to considerations of the building, the policy, and resources available to help his decision making. He is both highly practical and personally aware. He quickly sizes up the situation and knows his answer but he quickly identifies that he cannot just throw the answer at the parent and walk away. Even though the established board policy and existing school code provide him a perfect policy shield that means Roger need not even consider the question, he knows he has to consider the parent's emotional and personal stake in the matter. It is nearly the first thing out of his mouth after the initial, "no." He is very aware that, even though policy says he can just tell the parent, "no" and walk away, he doesn't do that. Roger is adept at functioning in a highly universal manner but with the appearance that he is working out of particularism-like understanding. He wants the parent to understand why it is a "no." He wants the parent to see what he sees and to genuinely accept the situation. His stated intention is to "get the parent to think it's their idea" in order to avoid confrontation. He is demonstrating ethically inclusive thought by trying to anticipate the parent reaction.

When asked how successful he thinks he would be in this scenario he is quick to respond that, "Oh, I could probably make that work. That's what I do." There is a confidence about him that is genuine. He does not appear manipulative although the raw

transcript may give that impression. He exudes caring. He looks right at you when he speaks. Roger's construct involving blaming the "system" essentially depersonalizes the conflict dyad from parent versus principal to parent and principal versus system. It is Roger's awareness of personal perception that makes him successful. Roger looks like a principal; he sounds like a principal; he knows the laws and policies, and he radiates capacity. He is committed to a position that the literature indicates has high turnover. He builds trust and uses empathetic awareness to promote participatory engagement. A different principal may know that the policy says "no" and default to that without the empathetic effort to get the parent to understand which is a situation that plays out in more than one other interview.

It is possible that this is why Roger chooses to stay in his position as a middle school principal. If he were to assume the position of superintendent, he would essentially become closer to the "system" that he currently works under. He is a middle manager who facilitates compliance and coordinated effort by being in the same boat as his constituents. In Roger's story, they are sailing together against the tides of the system and there is unity in their effort. But what does it look like when policy is not the foil but the protagonist?

Principal 2: David

Coming into David's school is not much different than Rogers's. This is also a newly remodeled middle school with a secretary watching my approach with the same careful eye. There's a flurry of activity as some students are painting a mural on the large glass window that separates the office waiting room from the lobby and the secretary's attention is drawn quickly to the potential of spilled paint. Actually, one of the painters is

David. David is in his eighth year of administration and his sixth as the principal of this building. He asks me to hold a brush while he hands some paint to a student on a stepladder. "You must be Jon. Come on back." He hands off the last of his paint to the student, and shakes my hand with both of his.

We head to David's office where the remodeled surfaces are more difficult to detect under the boxes of tests and papers that can be found everywhere. The school has just finished a round of diagnostic standardized tests to help them prepare for the formal tests later in the year and David is looking at the initial results. Our time together starts off conversationally and we sit together at a table in his office surrounded with the boxes and test sheets of the day's earlier activities. David is considering entering a Doctoral program and has some questions about my experiences. We discuss several of the available programs and the conversation quickly returns to why I'm here. David is dressed in a shirt and tie but not a suit. He looks professional but there is little polish to the surface. David is stocky in build, about five foot eight, and gregarious from the start. He has paint on his hands and he picks at the paint while we talk.

During David's self-introduction, he pauses frequently to ask me questions. He nearly always follows up my question with one of his own related questions. He seems genuinely interested in my experiences as a principal and as a professor. David gives the immediate presence of someone who is happy, almost joyful. In his forties, he already has significant laugh lines that just seem to point to a life enjoyed. David turns out to be one of my last interviews and we quickly get through the initial questions. He proves to be articulate and reflective. His response to the question regarding his path to the principal position is an interesting one.

I wasn't that great of a student and I think that helps a lot. I didn't know what I wanted and my parents weren't always the greatest and it wasn't until I had a teacher in college that sort of shook me the hell awake. I went to this dumpy little community college only because I didn't want to join the army and I didn't like the idea of getting a job. I had a history teacher there that just, I don't know, you know, boom. I got it. I got why he was teaching what he was teaching, why history mattered and I wanted to do that. That's why I got into teaching. I taught ES [Emotional Support] right out 'cause that's all I could find. I did that for four years. I was the longest teacher they ever had [longest tenure] and man did that help me be a better regular teacher. You think your kids have needs? Those kids had *needs* [emphasis on "needs"; he shakes his head].

One quickly gets a feeling from David as being genuine, down to earth, a teacher first, principal second. When asked how he became a principal he said, "just sort of fell into it." There was Dean of Students position open in his previous district and his principal asked if he would fill it. A Dean of Students position is a quasi-administrative position in schools where a teacher remains on the standard teaching contract but helps in discipline, planning, and all other duties except teacher observations for which a principal certification is required. While serving as a dean, he completed his masters degree and his principal certification. When the Dean of Students position was officially turned into an Assistant Principalship, he remained in that office for two more years. When a nearby principal position opened up, friends and colleagues encouraged him to apply and he did. He remains in that position today.

David's interview was unlike Roger's. David constantly asked for additional information or clarification during questioning. When asked to describe a recent situation where he had to make a tough decision, he wanted to know what kind of

situation I was interested in. "Something with a student? A parent? Something with the police?" He was probing to get details on exactly what I wanted. When I tried to indicate that any problem would be useful he asked a series of additional questions such as, "are you sure?" "What about something with testing? I could tell you about this parent I'm dealing with if that would help." He was trying to probe to see if I had some type of unexpressed need up until the very last.

As with Roger and every other secondary principal interviewed, the hypothetical GIEP World language question was posed.

> *David*: huh… We actually have a similar program. The students take their world language course in eighth grade and that counts as their year one. They usually take the second level their freshman year… unless their PSSA scores are low, then they often take an extra reading course or math course. So this meeting is with the parent. Is the kid there?
>
> *Interviewer*: uhh… no. just the parent.
>
> *David*: Well let's get the kid in there. I mean, this isn't kindergarten. What does the kid have to say? Is it during the school day, can I get the kid?
>
> *Interviewer*: OK. You get the student.
>
> David: That's good. So what's the GIEP say? Is he… is it a guy?
>
> *Interviewer*: Sure
>
> *David*: Ok so what does it [the GIEP] say about his learning? Does he have a history of interest in languages or even in reading? I mean if this is going to be a GIEP thing, we should address that first.
>
> *Interviewer*: Let's say the GIEP is about math aptitude.
>
> *David*: hmmm… so he's in accelerated math. That actually complicates things here because those kids are on a really tight schedule. We have a lady, a teacher from the high school come down to teach an Honors Algebra II class to 8th graders. That puts the seventh graders who are gifted or accelerated in math in a specific section of Algebra I. There's

only one section so that locks up a couple of things – when they take PE, when they have lunch, even most of their non-core classes are scripted. [pause] So is the student currently doing anything at home? I mean, what's mom doing here exactly?

Interviewer: What kind of things would you want to know?

David: ahhh… a little role-play… love it. So Ms. Johnson, or shall I call you Mr. Johnson… how do you know that your student wants to take Spanish one [the entry level Spanish class]. Actually, I guess I already got the kid. I would just ask him. Why does he want to do this? Does he want this or is it just mom. And that's not necessarily a deal-ender… sometimes the parents have good insight even when the kids don't want it. I guess I want to know what's going on. The big problem is that the kids usually get exposed to at least three languages in 7th grade through our extended social studies program and that gives them an idea of what they want to take in eighth grade, if this guy has only been exposed to Spanish, and that's fine, but what if when he sees German, that's what he wants. I don't want him making a snap decision. Maybe we can step back and explore.

Interviewer: Explore what?

David: Well there's the schedule. I'm not even sure this is possible. I'd need to look at a few things like staff, schedule conflicts, and stuff. There maybe some solutions like an online course or some software. Then there's the whole Board Policy piece. I have to make sure he gets all the required stuff for high school…

Interviewer: Absolutely. So where do you leave…

[David is absently picking at the paint on his fingers and he is looking overhead, towards a bookshelf, contemplating. While most of our interview he has been making very direct eye contact, he appears to be focused internally.]

David: [interrupts] actually, we have to worry about precedent here as well. I mean all parents talk to one another but gifted parents [parents of GIEP students] are like wired together… wolf pack kind a thing. What one

gets they all get... it's a pack mentality. And we have to be careful about resources. But you know what, our strategic plan mentions global citizenship… I love that as a former civics teacher… maybe this is the ticket. Maybe this is good not just for this kid but maybe this is a way to get more kids entering high school at language II or III. Maybe kids could take 2 languages or have more time for the High School's distance learning course on Japanese. Or maybe that's the ticket here. Is it really Spanish I that they need? Could I get them enrolled in the online Japanese class? That will push their learning envelope through the roof… yeah. Maybe that's the ticket.

NOTE: David starts jotting a few things down.

Interviewer: Can I ask what you're writing?

David: oh, I uh, just some notes. I have a terrible memory so I write down everything. <<laughs>> This is actually an interesting idea. I mean, we could be teaching kids Japanese... in middle school. How cool is that? I mean I'd have to get the director of secondary curriculum in the loop… you can't step on toes here… but I guess to answer your original question, I'd need some time.

Interviewer: Some time to do what? [David is back to full eye contact now]

David: Well there is a lot of possibility here. It may not just be about this Spanish I either. Is the parent or the student trying to avoid something else? Is there something at the high school that they want or want to avoid? Is there some competition… those gifted parents can push hard, you know… what do they really want? Is it Spanish I? I need time to interview the kid and the parent and find out the motivation here. I'm sure you know that what parents and students ask for isn't always want they actually want and it certainly isn't always what they need! <<laughs>> Plus I need some time to look at schedules.

Interviewer: That seems like a lot from one parent meeting…

David: Yea but if there's one, there may be more than one. Who knows,

this may alleviate a mess of other problems.

This exchange demonstrates that David's framing and problem definition are very broad. He is clearly favoring a community or particularism-style approach to his problem solving. The policy is something to consider but it does not make the decision for David. He is considerably generative in his thinking. The Definition parameter was coded as "flexible" because he directly states, "this may not be about this Spanish I" mentioning competition and avoidance as possible alternative definitions to the problem. His framing is very wide considering high school students, math classes, gifted parent culture, and even the school's vision statement in his salient points. He makes linkages between these and other variables showing potential relationships within and beyond this building.

In contrast, Roger's definition of the problem was exactly as it was presented to him. That is, Roger was asked if a seventh grader could take Spanish I and that is what he addressed. However, towards the end of David's response, he began to seek out other possible problems including whether the parent was trying to avoid something else or was the parent or student involved in some unvoiced competition. Specifically, David considered that the problem presented might not be the actual problem. In fact, David complicates the decision by introducing additional decisions and associated problem solving.

Roger's framing of the problem was immediate and fixed. There is a policy and a structure in place and both prohibit the addition of Spanish I in seventh grade; therefore the answer is, "no." Roger demonstrated empathy and inter-personal awareness by recognizing that this answer may prove problematic to the parent. His interpersonal skills and his delocalized empathy allow him to be socially successful while still being rigid in his framing of the problem. Roger also reduces the problem to its simplest form. The

GIEP element is quickly removed as being irrelevant and the problem is simply that of a request that violates standing policy. He can be sorry, he can be empathetic, he can even be frustrated along with the parent but ultimately the policy makes the decision for them. The process is also highly efficient. As discussed in the literature review, the job of the principal is difficult and time consuming and principals are leaving the profession due to these demands. Roger's answer took him only seconds – "no." Even allowing for the ironing out of the interpersonal wrinkles, Roger can step away from this problem and move on quickly. He is successful in that the parent may leave the office with their request successfully addressed although not fulfilled.

David's framing of the problem is very broad. Not only does he consider the root of the actual problem, he then immediately begins framing the problem in multiple contexts. He makes linkages to the students and the curriculum director. David immediately is gathering information and making linkages. While he too expresses concerns about precedent and policy, he is looking at the opportunity that this problem brings. David's process in this hypothetical situation represents highly creative problem solving and Roger's does not. However, David's tendency to utilize creativity does not necessarily translate to success. In fact, if David handles every problem like this, he may never get any problem resolved. This simple scenario generated several potential courses of action and effort. David may come closer to successfully fulfilling the expressed need of the parent but at the cost of greatly expanding the scope of the decision-making and problem-solving process. David and Roger represent two principals that appear successful but are each approaching the problem-solving process very differently. But what does it look like when the principal is not as successful as Roger or David?

Shawn brought a lot of meaning to the search for understanding the principal problem-solving process. Shawn is unique in these interviews because his history is unlike any other interviewees. Shawn's demeanor is formal but in a forced way. He stands almost too erect, uses a forcibly strong handshake, and is wearing a suit with a coordinated tie and colored shirt. His office is perfectly neat and looks exactly like the principal's office should.

Ten years ago, Shawn was a principal for two years and then quit. He returned to the classroom at his own request because he "hated everything about the damn job." After another ten years in the classroom, Shawn has recently re-entered administration at the request of his superintendent. He is in the middle of his second year of this principal position giving him three and a half years in the principal chair along side nearly twenty years in the classroom. For most of the interviews conducted, the job history question at the beginning of the interview serves to get the conversation started as well as a method for establishing some basic demographic information on each candidate. Shawn's job history was a peek into how a new principal realizes the demands of being an administrator.

> *Interviewer*: May I ask why you left the principal spot after two years?
> *Shawn*: Sure, sure… no shame in it. I left. I'm sure no one was begging me to stay but fact is, I simply hated it. I hated the politics. I hated the paperwork, I hated the hours. I mean come on… I was working twelve thirteen hour days, six days a week and getting yelled at by parents and the boss. Every decision I made was always second-guessed. It was horrible. I had a lot of teaching under my belt but I wasn't ready. She didn't care for me much.

Interviewer: She?

Shawn: The super [superintendent]. Good lady and all but we, I… it just didn't work. I didn't care much for her either but, but, really, I wasn't ready.

Interviewer: But you're ready now?

Shawn: Well, it's better. [pauses, laughs]. Now I'm a principal in a building where I've known people. They respect me and trust me. I have relationships with parents as a teacher and I've had older siblings and such and like before, I was the new guy and I was a nobody and people didn't trust me but it's all about trust. I'm building on my teaching reputation so that's there.

[skip ahead]

Interviewer: You said that you were second-guessed. What kind of decisions did you make that were second-guessed before?

Shawn: Every damn thing I did…[laughs]. We, once we qualified for district wrestling and I allowed the team to go and not just the wrestlers who qualified but any member of the team because in my mind, these kids trained together all that time and they deserve to go and sure they miss a day of school but they wanted to go and they deserve it. That's what the team thing is all about. See I coached so maybe I'm biased here but if the football team or the basketball team makes districts, they all get out early to go to the game, I didn't see this as any different.

Interviewer: But others did.

Shawn: Oh yeah. The superintendent didn't like it and neither did a couple of parents because it turns out some of the wrestlers forgot to tell their parents that they were going to the match instead of school. Of course some parents and all of the players were on my side but I had to sit through the ream-out session from the super about allowing the kids to miss a full day of academics to go to a sporting event and not communicating with the parents better and that kind of crap happened all the time because I would do what I thought was best… I mean not me

only but for others. I listen to people and how they feel and what I would want and I tried really… I don't know, I… I had a principal who never listened to anyone. He just did whatever he damned wanted to do or what his boss wanted him to do. Didn't matter what the teachers needed or the kids and I didn't want to be that guy. I listened but I don't know. I listened, I tried… I just got tired of getting my wrists slapped all the time, all the time. Damn.

Interviewer: That probably never happened while you were teaching, right?

Shawn: Hell no. I was super teacher. People loved me. I coached baseball and helped kids learn and get scholarships. Everyone loved, loved me. I think that's really why I quit. The money was nice but I got tired of the shit being poured on my head all the time. It just wasn't worth it.

Interviewer: So why are you back?

Shawn: Heh… retirement isn't all that too far away and I have a kid in college and I thought it was time to give this a try again now that I have a little thicker skin and more clout… more gumbo in the pot.

Interviewer: Gumbo in the pot?

Shawn: Yea… more stuff that I've done and been through and like I said these people trust me.

Interviewer: So when you took your first principal position, you were not in the same building that you taught?

Shawn: No, no… I was… it was the same district, not this one, but I was taking over a different building and it was in bad shape and nobody knew me and I was just this guy this guy that… well, it just didn't work.

Interviewer: Is it working now? Do you like it now?

Shawn: Well the money is good and the job is easier than it was last time. Well no, not easier but easier to deal with and I mean it's still the same load of shit being poured on my head but I'm better at stepping out of the way.

Shawn and his unorthodox experience provide some insight about the culture of

the principal and this exchange illuminates the relationship between policy shielding and delocalized empathy. Shawn clearly actively avoided policy shielding by sending the wrestlers. He does so because he has a strong empathetic consideration of these student athletes. However, because his empathy is highly localized, he unwittingly generates a series of negative consequences. Shawn's history demonstrates that there may be some relationship between the problem-solving process and job effectiveness. Partly because of my interview with Shawn and also because of the near universality of all of my other interviewee's initial response to the question, "how do you like your job," later interviewees were asked for a recommendation of a principal who had voluntarily left the profession. One person was found who agreed to a brief interview.

Principal 4: Mark

Mark had been a principal for eight years. Before that, he had been a high school math teacher for twenty-two years. It seemed odd to find someone who would walk away from the higher paying job so close to retirement as the Pennsylvania retirement payout for public school employees is based on the average of the last three years of salary. Mark had left the profession just this year to be a math coach at the elementary and middle level. Mark did not wish to be recorded but agreed to answer a few questions for my study. Mark had no problem articulating his reasons for leaving his principal position. The following is as close to a quote as I was able to piece together from my notes of the interview. While not perfectly verbatim, it captures his intent.

> I was just sick of it. I was sick of the parents mostly because they were
> always complaining and going behind my back. I worked hard but there
> was just no doing right. Towards the end it was like they smelled blood in
> the water. They just kept filing complaints and going to the

112

superintendent. He was pretty supportive for the most part but I think he was sick of it too. It just wasn't worth it anymore, you know. I'm almost sixty and I just got tired of that every goddamn day.

When I broached the delicate subject of making this kind of move so close to retirement he said, "Yeah, I guess, but my wife's a teacher too and we'll be fine. It just wasn't worth it, you know?" When asked what he's doing now, he responded, "I'm the math coach. It's a new position and I love it." Mark has activated his teacher safety net and returned to the classroom just like Shawn had done. It is an option that is always there when things get difficult for a principal. While Shawn's and Mark's experiences were markedly different than the other interviewees, their input was equally valuable in uncovering the three findings presented in this investigation.

Findings

Drawing on the interviews of the case studies presented above, an exploration of the development of three findings is presented. Additional data from other interviews demonstrates that there are three distinct processes that occur before or during problem solving that describe the process.

Policy Shielding

Using the terminology of Ahmed, ethical entanglements can be thought of as "sticky." When presented with a decision to be made, the principal must also decide how much problem solving he or she should engage in prior to rendering that decision. The Definition and Framing elements of the problem solving model provide the opportunity to introduce new salient points for the principal's consideration. These new pieces of information may include some of Ahmed's "bumpy" elements. Personal, emotional, cultural, and other ethical facts can entangle the decision-making process and create a

very sticky situation. However, the principal can utilize existing policy to shield the decision-making process from these sticky and bumpy elements.

Policy Shielding refers specifically to the act of avoiding ethical or empathetic complexity through the application of policy. This process may be deliberate or unintentional. For example, Roger used the existing policy as a shield against ethical entanglement when considering the gifted seventh grader's admission into Spanish I. Roger exorcised what he perceived as irrelevant information and simply let the policy do the decision-making. Roger was not lazy or neglectful in his duties. On the contrary, he was very adept at seeing all of the potential sticky elements and used policy shielding to provide an efficient response.

When we examine David's approach to the same problem, he actually entangled himself by complicating the picture even further by including more ethical, or bumpy, considerations. His first instinct was highly empathetic, an element explored further in the next section. If ethical or emotional elements are bumpy pieces, then David was gathering enough pieces to build something. Note that David does not ignore policy. A lack of policy shielding is not a disregard for established rules, only the relegation of the rules to one of several elements under consideration. A principal who engages in strict policy shielding removes all of the contextual elements of the problem and only acts in accordance with the applicable law or policy. Conversely, a principal who avoids policy shielding compartmentalizes the applicable policy or law to one part of the problem. It is an important factor, but not the only factor. A principal who avoids strict policy shielding may eventually follow the prescribed policy when the decision has to be made. Policy shielding refers to the lack of consideration of context, not the avoidance of policy itself.

114

There may be some utility and efficiency to policy shielding. Shawn could have saved himself a tremendous amount of grief by simply shielding himself with the policy of the athletics manual. Roger seems to have even developed a deliberate approach to policy shielding when he refers to the "system" that he is working against with the parent. He has personified the policy as the other actor that has all the power. In fact, rules are empty if not enforced and the principal is the chief enforcer for the school building. But Roger's ability to shift the burden of the decision to the policy shields him from personally letting the parent down.

The presence of policy shielding revealed in the other interviews is notable. As mentioned previously, the final question for each interview was simply a request to have the principal recount some particularly difficult decision that they had to make in their career. Three separate interviewees mentioned a conflict between a zero-tolerance policy and mitigating circumstance. In the school policy environment, school boards often adopt what are referred to as zero-tolerance polices to attempt reform in a particular area. A common example is a mandatory expulsion consequence for a student charged with weapon or drug possession. This has led to several, well-publicized cases where young children were removed from school for bringing pocketknives or over the counter medication to school (Simmons, 2005).

One of the interviewed principals recounted an instance where a fifth grader found an orange plastic toy dart gun on the way to school. The toy was in the street and was partially broken and clearly discarded. A teacher discovered it when she was putting the take home folders in the backpacks of the children. The teacher identified the situation as a "student in position of a look alike weapon" which is the exact language

115

from the school district's weapons policy. The principal, Vickie, is a confident female principal in her forties, and is the principal of two urban elementary schools that are a few blocks from each other. She wasn't at the building when she found out about the incident and she describes it as follows:

> My cell phone rang and Tara [the secretary of the building] seemed pretty frantic and she was upset which automatically makes me… concerned. As she's talking, I'm grabbin' my coat and head out the door to go to Wilks [the other school] and she's saying that Bobby has a toy gun but she knows it's a toy and that it's not his fault but he has to go away and she's just rambling really. By the time I get to my building, Bobby is in my office crying and the teacher who found the item is there and she's crying and the secretary is crying. You see [pause] we just had an assembly about the weapons policy in school a few weeks before. This was our first year with it at the elementary level and some kids had been playing pranks on other kids – even in 3rd grade [she raises her voice] – by putting toy weapons, a rubber or plastic knife I think, in other kid's bags. It was getting to be a real, real big issue so the district had the cops put on a show and we talked about look-alikes and how they are almost as bad because the police might not know it's not real and people can get hurt. So Bobby's an ESL kid [English as a Second Language] and Bobby's been working really hard and we like him – everybody does – always happy. So here I have all these people crying and upset because Bobby brought a hunk of plastic to school and even though Bobby couldn't hurt anyone with that thing if he had thrown it at 'em the policy says he goes. It's just stupid… stupid. Why? But I'm stuck – I mean if I don't do it, then word gets out and the fear of expulsion that is movin' some kiddo's behavior goes right out. Too many people know now to just ignore it. The teacher kinda tied my hands … going all public right away – something I brought up with her later you can be sure of that… and, but if I don't do it, I could get fired. But I don't want to bounce this kid for essentially picking up

116

trash.

Unfortunately, Bobby was expelled as per board policy but because of the principal strongly advocating for Bobby, he was returned to school after only five days. In a sense, the policy almost rendered the principal helpless in this situation. She was unable to act in the manner she thought best for the children in her care. It was only because she made the effort to go to her superintendent and the school board that the child's expulsion was repealed. The zero-tolerance policy is the ultimate policy shield because the principal has very little discretion to not follow the policy. In fact, the point of zero-tolerance polices is to completely smooth out any bumpy mitigating circumstances. It essentially dehumanizes the process by stripping away the possibility of empathetic interaction. This is clear universalism as explained by Parsons (1951) and Sergiovanni (1999). Another principal expressed her frustration with a zero tolerance policy involving truancy with her answer to one of the hypothetical situations presented. The scenario was as follows:

> Suppose a young lady at your school has been late to school 15 times. She is a decent student who has served all of the escalating consequences for being late without issue (detentions, etc.). After 15 late arrivals, you are starting to get concerned and your secretary lets you know that mom drops her off everyday. She does not ride the bus. What do you do?

She was almost surprised by the question and indicated that she had just dealt with a near identical situation just a few days ago involving a seventh grade boy. In her recount of the problem, her initial thought was that the boy was living out of the district and his mother was bringing him across district lines to keep him in this middle school. This is a common problem in affluent, well performing Pennsylvania schools and the principal, Carol, was suspicious of a parent who would not use the available bus. Carol's

117

suspicions turned out not to be warranted and there was now the problem of the truancy policy.

Carol's school district took a pretty serious stance against what was perceived as a rising problem of students being late to school. The Pennsylvania School Code does not specifically reference being late to school so most school districts find themselves having to add up minutes of being late and then addressing student tardiness through the absentee policy. Carol's district had implemented a scaled series of mandatory, incremental consequences in batches of three. Three late to schools earned a lunch detention. Six meant 30 minutes after school. When a student gets to 15 late arrivals, the student is given a day of out of school suspension. Carol took a moment to reflect as a former English teacher to point out the irony of using a suspension from school as a punishment for not coming to school.

After a brief investigation, Carol discovered there was a very simple problem. The boy hated the bus. It made him sick, he was picked on and it was loud. Carol was able to learn this information by literally ambushing the parent one day during a late drop off by the parent. The mother was very apologetic but she had another child to get to day care before coming to the middle school. When the traffic was bad, she was late. Carol was able to set up a meeting with mom at a more convenient time and brainstorm solutions to the underlying problem. In the end, everything worked out for everyone but there was still the immediate problem of the suspension. Carol works for a large, affluent school district. There is an attendance officer. There are automated attendance reports and audits. Letters and consequences go out automatically on official letterhead with an authentic reproduction of the principal's signature. The system is a computer driven

118

policy shield. When asked how she responded, she replied:

> I called mom and said, look – you're going to get a letter from me
> suspending your son for a day because of the 15 tardies. Ignore it. I told
> her I can't stop the letter because it's probably already out the door. To be
> honest, I could probably tell Diane [secretary] to get it pulled but I can't
> be seen as playing favorites here. The district is really, really serious about
> this. We've already suspended a couple of kids and their parents are not
> happy – and really, who can blame them… so stupid. But anyways I can't
> be seen as playing favorites so I told mom it was off the record and to
> keep it between us. She's a good mom, she's trying. I'm not suspending
> this kid – I mean, she'd have to take off work….

So here is Carol actively engaged in circumventing automated policy shielding. Zero tolerance polices like this are often put into place to shore up inconsistent application of consequences by administrators and here we have Carol rallying right up against this new district policy. Why does she do that? Why not just apply the policy and go forward. Because Carol is being inclusive in how she defines and frames the problem despite the existence of a firm policy. She is attempting to move away from the *gesellschaft,* depersonalized approach and construct a more interpersonal, *gemeinschaft-*like approach to building a community-like environment. In considering this situation under our model of problem solving creativity, the system in this case is designed to prevent any such action. But Carol fights that system and redefines the problem. This is not about being late to school at all. Carol learns about a bullying relationship that exists between this boy and another seventh grader. She learns about this single mother's struggle to get her younger child to day care. She learns that mom is also going to school because her husband was unexpectedly killed two years ago. That means that this boy may be struggling with a lot more than being late to school. By not blindly applying

policy, Carol is able to gain a richer understanding of the needs of this mother and son and by understanding these needs, she feels she is better able to address the situation. This example shows how avoiding policy shielding was able to produce a more inclusive solution to a principal's problem. However, policy shielding may have some benefit for principals as well.

Roger's handling of the world language question demonstrates an adaptation of policy shielding that provides a Teflon-like effect for his approach to sticky situations. . Everyone is treated equally and people respect him for it. Roger is efficient and happy. His longevity in the career is certainly not the norm. His job satisfaction is high. Perhaps Roger's policy shielding affords him an emotional distance that keeps his own emotional state happy. In contrast, Shawn and Carol both demonstrate a willingness to stand up to policy when they believed it necessary, although Shawn's experience was not as positive as Carol's. The difference between Shawn and Carol's approach in how they avoided policy shielding help to define the second finding. While Shawn and Carol both consider the individual's needs to be paramount to policy, their difference in approach centers upon the size of their empathetic footprint.

Delocalized Empathy

The ability to understand how another feels is an important human ability. As we interact with people, our empathetic response is automatic and instantaneous (Decety & Jackson, 2004). It allows us to be social creatures. Of course it is possible to be more conscious and intentional regarding our empathetic impressions but socially normalized human interaction is highly dependent upon our empathetic impression. In fact, recent research into autism indicates that the fundamental difficulty for many persons within this

spectrum of disorders is a profound lack of empathy (Baron-Cohen, 2003). But what is the role of empathy in the principal and how does it relate to the decision-making process?

The transcripts were reviewed to identify exchanges that involved an explicit act involving empathy. Because principals deal with people throughout their day, there is great opportunity for empathy. Nearly every scenario response by principals in this study was full of emotional or interpersonal awareness. In fact, the generic empathy code was applied to dozens of individual responses over the nineteen interviews. This would include phrases such as, "she's not going to like that", "I think mom really struggled with that – she's angry and I understand why", and, "she feels disrespected, she's done her time, and it is a big deal to her."

These empathetic considerations fall into two categories. The first category, where most of the coding occurred, was in what is referred to as "localized empathy." That is, the empathetic reaction was regarding the most prominent actor or actors involved in the situation, and was also confined to the immediate temporal situation. Principals in this study often verbalized their awareness of personal empathy for those directly involved. In discussing the teacher who wanted her parking space improved, many principals were quick to project a range of potential feelings on our hypothetical, disgruntled teacher. She may be injured, old, or disabled. She may be feeling slighted or under appreciated. One young principal quipped, "there aren't many perks with getting old, to her it's respecting your elders – she probably should have a better spot."

Nearly every principal interviewed was highly empathetic at this localized level. Principals lead people. They interact with people constantly. Decisions surround them

with great emotional and personal context and it would appear that many, if not all, of the principals interviewed were able to demonstrate this type of empathy. What was less common was what is identified as "delocalized empathy." This is the principal's ability to project empathetic consideration to additional actors or stakeholders not involved in the immediate problem as well as the ability to project empathetic considerations to future or past time frames. In short, delocalized empathy is any empathetic consideration outside the immediately presented problem. It has particular application with the first two elements of the creative problem solving model, that of defining and framing the problem.

The transcripts provide several examples of this delocalized empathy. For example, Vickie, the principal of young Bobby who was to be expelled for having a plastic gun, was considering the feelings of other parents, students, and her superintendent. Additionally she projected the future feelings of students about their adherence to the policy regarding look-a-like weapons. She considered the emotional history of the circumstance. Her definition and framing of the problem involved projection of empathetic consideration to other people and other times. She slid far to the right of those continuums indicating high levels of creativity.

In contrast, in an examination of Shawn's actions during his trying moments as a new principal, we see a man that is also in full empathetic consideration. He was aware of the negative feelings associated with not being listened to. He was able to empathize with the wrestlers' desire to attend the sporting event. Even though he was aware that academics are a priority, he chose to act on his empathy with the players and it wound up getting him in trouble with his superintendent. It was not Shawn's empathy towards the

wrestlers that resulted in the eventual "reaming out" by his superintendent. It was his limited empathetic scope that created his problem. While he was completely in tune with his students, he failed to recognize the emotional engagement of the other actors involved. The parents wanted to know where their children were going. The superintendent was committed to the academic climate of the building. It wasn't that Shawn was too empathetic; he wasn't empathetic enough. Shawn's empathy was localized to a very small sphere. He listened, planned, and acted only within that sphere. He feels unappreciated because he did listen and he did empathize and he got reprimanded. He just didn't listen to enough people.

Examining Shawn's experiences under the creative problem-solving model, his definition of the problem is very rigid in that he only considers one decision – to allow the wrestlers to attend the match or not. His framing of the situation is equally simple – there is a policy that says no, but the players still want to go. He does make the linkage to include the player's feelings as opposed to simply following established protocols but this is what causes fault according to his superintendent. He could have simply followed the existing rules and not have dismissed the students from school who were not wrestling in the extended season match. The parents and the superintendent would not have complained; the students may have been disgruntled, but no serious harm would come to anyone. But Shawn had this instinct that not being listened to causes harm. This may be a good instinct and it may even be considered a highly developed and insightful instinct. He didn't want his students to experience that feeling of "not being listened to" and he acted in what he perceived as their best interest. He indicated that he did this because he felt that listening to the kids was good for the school.

What if Shawn had delocalized his empathy beyond his immediate scope? If he considered the other actor's emotional interests, how might things have played out differently? Upon considering the potential reaction of the superintendent, he may have first engaged the superintendent and tried to explain his position of listening to the students and fostering school spirit. He may have met with parents and garnered support or given them options. He may have ultimately wound up making the exact same decision but the resultant experience could have proved highly beneficial for all persons involved. This is the crucial point for Shawn's case because Shawn may have had the best course of action in mind. He may have had the intuitive sense to make the best call for the long-term health of the school, but his lack of empathetic scope makes for an ineffective execution even if he had the right decision all along.

Roger, who demonstrates a willingness to actively engage in policy shielding is also highly empathetic. His answers to the questions indicated that he was quickly able to size up many related empathetic considerations. In his response to the seventh grade Spanish I scenario, he considered the student, the parent, the board, the other gifted students, other students in general, the high school, and his superintendent. He was able to quickly identify many potentially bumpy pieces in this puzzle. It is not that Roger is un-empathetic. His responses demonstrate that he is particularly skilled at using policy shielding to avoid emotional distress. He uses policy shielding to smooth the bumps as much as possible but it is his awareness of the emotional and personal issues of every stakeholder that provides him a potentially successful path.

The principals interviewed demonstrated various levels of empathetic awareness. As mentioned previously, nearly every principal had some type of localized empathetic

response to the teacher in the parking scenario but one middle school principal with ten years in education went right for the larger picture:

Principal: So I'd want to know what the other teacher's think.

Interviewer: How do you find that out?

Principal: Well, I need to talk to the lady first. Is she OK with me taking this to a faulty meeting? I don't wish to embarrass her or call her out. If this is just a temporary thing or a personal situation, you know…

Interviewer: So would you take it to a faculty meeting?

Principal: I'd put it out at a meeting, yeah. But I'd talk to teachers in private. You never get good feedback in a group setting. Somebody will shoot their mouth off loudly and drown everyone else… I'd plant the seed at the meeting and then talk to individual teachers a few days later.

Interviewer: How do you decide who to talk to?

Principal: ahhh… that's my secret [laughs]. I talk to my squeaky wheels. I get their private opinion first so I have a good idea what I'm up against. Sure this lady wants a better parking space but I might have some diva on my hands. Or maybe she's been talking about this at lunch for months… people have opinions that they carry around. You can learn a lot just by asking them.

Interviewer: But what if you miss somebody with a strong opinion?

Principal: oh I always throw this kind of stuff back out there for the whole group but only after I talked to some of the squeekies. That way everybody had a chance. We just did this with PSSA proctoring [a standardized test]. We needed to decide how to divvy up the proctoring and how to assign bathroom breaks and rotations. You'd think this kind of crap would be trivia but ohhh no; this is big stuff. Turns out people had been complaining about last year's schedule a lot and how unfair it was… I learned that in a hallway visit to a teacher… so yeah. You gotta work all that emotional crap out or the native's get all really angry.

This principal appears to have developed a system for garnering empathetic input. He

systematically seeks out the personal needs or perceptions of those individuals who might prove the most problematic. This principal also presented several other separate instances of creative problem solving in response to the scenario questions. The empathetic process generates more salient points for consideration. This indicates that empathetic consideration may improve the opportunity for creative problem solving.

Another middle school principal was much more succinct in her answer but very broad in scope. Her response was, "well this could be a very big deal. What are the other schools doing and what does everyone here think here? I mean if we do a seniority thing, the poor new guy is going to be under the tree." This principal quickly projected to the rest of the teachers in her building, the other teachers and principals in the district and then people who haven't even been hired yet. Her delocalization of empathy was very wide. This empathetic delocalization may be a key factor for success in being a principal in that it reveals implicit factors that may prove helpful to providing a successful resolution. The understanding and anticipating people's personal reactions are examined further in the final section. However, there is one other parameter in the data analysis that strongly mitigates the delocalization of empathetic consideration.

Ethical Inclusion

As described in the previous chapter, one's ability to empathize is strongly correlated to ethical awareness. It is difficult to effectively empathize with someone unless one understands her or his guiding ethics. We are likely to assume that people work from an ethical base similar to our own, but this may not be the case. The data show that understanding that the stakeholders in the principal's sphere of influence may function from markedly different ethical frameworks improves the possibility of creative problem solving. In some cases, principals that expanded

their ethical understanding of the problem were able to uncover important circumstances often involving the health or well being of other individuals.

In reviewing the transcripts of the interviews in this investigation, several instances of ethical inclusion present themselves. What drew my initial intention to the construct was an almost flippant comment by one of the principals regarding the older teacher who wants the better parking space. Mentioned previously, this principal empathized that the teacher was probably seeking respect. This represents a shift in ethical awareness. Even though the principal herself was quite young, she was able to project an empathetic consideration towards someone older. Another exchange from an early interview provides an additional example:

> *Interviewer*: When you went to the house to get him [a student who was habitually absent from school] what happened?
>
> *Principal*: Not good. The place was a wreck and there was no real door. I actually knocked on the doorframe and this old guy came to the door and I asked if he was John's father. The guy looked like he might be high or out of it because he just stands there looking at me. I ask him again and he says that John's at school. I tell him that I'm the principal of the school and John's not there, are you his father?
>
> *Interviewer*: Wow…
>
> *Principal*: Yeah. So I start thinking that I have a CY thing [Children and Youth Services]. I got a kid that's in some serious trouble, you know? He's not worried about math, man, he's worried about having a front door.

While this is an extreme situation in terms of the student, the principal's response illuminates a clear case of ethical inclusion. Yes, missing school is bad. Yes, truancy is punishable by detentions and fines. But in this situation, the framing of the problem takes on a level of ethical inclusion that complete changes parameters of the problem. The principal shifts from the truancy enforcement role that he started out with and quickly becomes a child advocate after he is aware of the child's ethical framework. It is

127

important to note that a blind application of policy would also be productive in this case. The eventual truancy would lead to registered letters and then an eventual visit from the sheriff's office for failure to pick up the registered letter and at some point, the system would hopefully come to the rescue of a child in desperate need. The critical point is that the principal's ability to assume the ethical stance of the child allows him to react differently than if he stayed within his original ethical framework of the truancy policy.

Not all of the examples from the interviews are this dramatic. One principal shared that his school district was reauthorizing the dress code and there was a line in the new policy about no hats. She was able to share with the dress code development committee that they needed to address the Islamic girls in the school who wear a hijab or head scarf as part of their cultural and religious practice. Another principal talked about having difficulties with a teacher who was always grading papers during his faculty meetings; something he took as a sign of disrespect towards him. In talking with the teacher he learned that she genuinely didn't see it that way. In fact, she thought herself a very able multi-tasker and she believed she was demonstrating efficiency and professionalism. After all, it was work-related and she was getting essential work done. By having this conversation with his teacher, they were able to start a dialogue and the teacher was able to perceive the different ethical stance of the principal and visa versa.

In a conversation about a recently difficult problem solving issue, a principal was talking about how he was dealing with a boy's behavior in a particular class. He was consistently disruptive and things had progressed to a point where the boy had passed beyond all the minimal consequences and was approaching a point where he would receive more severe interventions such as in-school suspension or even out-of-school

suspension. The principal shares this perspective:

> So I'm talking to this kid and he just doesn't get it. I'm talking about
> detentions and disrespect and, we're getting really serious here like he's
> going to get kicked out of school if he doesn't stop disrupting the class but
> he's just not getting it. He keeps talking about irrelevant stuff like groups
> and grades and I keep saying, 'look, we're not talking about that now –
> this is about your behavior.' But he keeps at it. Finally it dawns on me,
> and this has been going on for days now. This isn't our first conversation.
> This is maybe the third time this week he's been in my office from the
> same teacher. And it dawns on me… in looking at his file, this is only
> happening with this one teacher. Now it's clearly this kid's fault – he's
> shouting out garbage, getting up in class, braking lab equipment – the
> kid's a first class jerk but why now and why all of the sudden? So I ask
> him. Turns out the kid got a "D" on his science fair even though he
> thought he did a really, really good job. This didn't come out all at once
> but over time it was clear to me that the child felt wronged and he was
> retaliating. Until we address the injustice – real or not - this kid thinks he
> right and he's not going to stop no matter what I do.

For this child, his ethical framework has shifted from what could be considered the norm. This student is not working out of any desire to achieve good grades or to follow classroom expectations. He is working out of locus of oppression and injustice. The minor consequences he has received thus far mean nothing to him because in his mind he's fighting against a greater injustice. If the principal keeps applying the policy, the consequences will escalate to circumstances that may cause irreparable harm to the child's academic career. In this case, the principal indicated that the policy would eventually lead to suspension and even expulsion if the child refuses to bring his disruptive behavior in line with the established expectations. Another example would be the previous example of the tardy scenario. Several of the principals interviewed and my

own experience, provide evidence that late-to-school policies have escalating consequences that eventually result in fines and even arrest warrants for the parents. The blind application of policy may produce unintended results.

It is important to make the distinction that the principal doesn't have to agree with the child's ethical condition; the principal only needs to appreciate what it is. In the example provided, our middle school student who is angry with the teacher for giving him a low grade may be incorrect about his self-assessment and perhaps the teacher's grade was fully justified. That point is unimportant to the recognition of the child's perspective that he has suffered an injustice. Ethically inclusive thought allows the principal to extend his or her empathetic range because it is impossible to be fully empathetic unless one is aware of the ethical disposition of another.

The Relationship of Ethical Inclusion and Empathy

Delocalizing empathy appears to be a valuable tool to promote creative problem solving but the act of empathy can only go as far as the ethical framing. Continuing with our example from above, it would be possible for the principal to be empathetic but without attention to ethical inclusivity. For example, he or she could worry that the child is not learning or that the child is going to have severe consequences soon that might pull him from school. This surface-level empathy is helpful but empathetic awareness is not fully enabled until we understand the ethical stance of the child. When the ethical framework of the child is included in the principal's defining and framing of the problem, there is a broader opportunity for empathy. As demonstrated by the principal in this example, expanding the framing of the problem to include the child's sense of injustice provides an entirely new line of reasoning that may eventually provide resolution.

Increasing the empathetic footprint by ethically inclusive thought is perhaps best understood through a discussion of the truancy scenario with a female principal in an urban environment that occurred mid-way through the interviews. She indicated that she deals with parents differently depending on their ethnicity. While this may seem unfair, she was able to articulate her stance quite clearly. She indicated that in her Latino population, authority of the principal is important. The position itself has authority and she has found that her Latino parents are more likely to separate school issues from home issues. She says, "My Latino parents are less likely to come in and complain about a teacher or an incident. Culturally, they trust schools. We have a large group of people from Nicaragua and I find that they trust us." She continued by stating the she has to be careful when she just shows up at a Latino student's house because it can be considered insulting. "The school takes care of school stuff, home stays home." She's demonstrating ability for ethical inclusion.

When asked how she deals with other non-Latino parents, she paused and then provided the following:

> I guess it must sound bad to just lump everyone together like that but I really have found it be really true out there in practicality. In general, when something happens at school I try and keep my parents informed so like if a student has a minor scrapper [fight] at lunch, I usually call home to let mom or dad know. But sometimes with my other parents I don't especially if the child has corrected his behavior. It's done. I don't bother. In that case [the case of Latino parents] I only call when something must be done at home or there's a real, real danger to the child.

This principal is able to expand her empathetic awareness by considering the ethical framing of her parents. Her experience has provided her insight into how they

view the role of authority and schools. This principal may even hold a viewpoint that runs counter to these parents. However, her ability to consider these ethical factors also allows her to be more empathetic and therefore provides a greater scope of creative problem solving opportunity. In fact, the nature of each of the three findings and creative problem solving is unique and interrelated.

<p style="text-align:center">Policy Shielding and Creative Problem Solving</p>

In an examination of the prevalence of creative problem solving in the principal's responses to the scenario questions, there is one exceedingly clear trend. Principals who demonstrated a tendency to utilize policy shielding also engaged in less creativity in their approach to making decisions. While Roger's case has been presented in some detail, there are many examples of crisp policy shielding from the principals interviewed. From the scenario involving the habitually truant student, some policy shielding responses from three separate principals include:

- "Oh I'm not touching that. Our Attendance Officer will be all over it"
- "Well, the attendance code is the state and the rules are somewhat rigid. My hands are tied."
- "Well I'd want to know that the child's OK and all, but our pupil services office is going to handle that directly."

If we look at the same three principal's responses to the parking space issue, we see the following:

- "Well, we'd have to look at the problem as a group and come up with a better system."
- "Since there's no procedure for handing them out, we should put something together… maybe at a faculty meeting?"
- "this is definitely something for my faculty advisor group. I'd turn it completely to them."

The principals who were very apt to use the existing policy or system structure in place to handle the truant student were also very linear in their initial response to the parking space problem. The problem presented is the problem addressed; there is no attempt to redefine or more deeply examine the reason for the parking space request. Their responses to the bullying scenario were also very limited in their creativity in defining the problem:

- "We have a wonderful anti-bullying program here. I'd get this guy in front of our mediation counselor right away."
- "…I want to know the history here. I mean, I, we take this very seriously and our committee works hard so I'd want to have the chance to let our system work…. If the child is older we have peer mediation that has been very successful here with our team committee. And if this kid is bullying someone, there's gonna be more than one victim."
- "We take bullying very seriously here. I'd want to get to my teachers and see why I don't know about this. This kind of stuff can't go unreported."

In each of these cases, the problem is presented as bullying and it stays as bullying throughout the principal's discussion. The third principal in the above process does mention that he wants to go get more feedback from his teachers but this doesn't seem to be to explore what the problem is, but rather to determine why the problem hasn't been reported yet.

If we look at the responses of principals that demonstrate a higher level of creativity in problem definition in the bullying scenario, we see the following:

- "You know, it could be that her kid is getting bullied but bullying has a specific definition – it happens consistently over time and getting picked on once is not bullying – it's just some kid being mean. But this mom could have issues with something else like another parent or grades or me."
- "Before we do anything, we have to make sure that we get the other side of this.

It's too easy with something like this to assume that you have a bully and a victim but kids don't always give their parents the whole thing."

These principals are examining the problem presented and considering that the situation may not be as presented. Interestingly, one of these two principals had a similar response to the parking space scenario:

This is probably not about the parking space... not only about spaces. Or something else has to be going on because she's not just going to bust in here and start in on a space unless something else is making it worse, a problem. Maybe she's injured or somebody was mean to her or she feels slighted or whatever. Don't get me wrong here, it's not trivial, in fact, no way, this is probably a much bigger deal than where she parks.

There is evidence of a desire to redefine the problem. Equally interesting is that close examination of these two transcripts shows little evidence of policy shielding. Policy shielding appears to hinder creative problem solving. Conversely, if a principal tends to rely on the policy to make decisions, then redefining the problem is not productive behavior. However, when policy shielding is paired with limited or localized empathy, the potential for unseen problems arise. Policy shielding may provide a dodge for the sticky situation but delocalized empathy is what protects the principal.

Delocalized Empathy and Creative Problem Solving

Principals who engaged in creative problem solving according to the established model, also showed signs of empathetic consideration well beyond the immediate roles as one of the key sources of their generative thinking. For example, the principal who responded, "there may be something more than simple bullying occurring here" was the same principal who indicated she considered the ethnicity of her parents before making a house call in order to not cause unnecessary insult. Redefining the presented bullying

134

problem is a clear indication of a creative start and she also has a wide empathetic

consideration. Similarly, we can examine the following examples of this coupling

between delocalize empathy and creativity during the Science Chairperson Replacement

Scenario:

> *Principal A*: Well what's important here is the group dynamic, not my
> personal agenda. We need, I mean the department needs to spend some
> time soul searching. I'd facilitate this with the making sure they had
> everything that was going to be on the future horizon in their scope.
> When's the next textbook adoption, the building project, new hires, all that
> stuff. It's more than personality. I'd want to help them solve the problem
> themselves 'cause they're the ones that have to deal with the new chair
> most of the time not me.

> *Principal B*: I just did this with Math, you know, and I just backed out of
> it. There was a math meeting that I went to where each of them – there
> were three, all said that they may be interested... you see there's a pretty
> good stipend and a good bit of control over budget. All I said was, let's
> not decide right now, let's wait until next month and think about it. One
> dropped out the next day saying she didn't want the headache and then
> one of them came up with an idea a few weeks later that wouldn't it be
> smart to have co-chairs given that Barb was a budget master since she was
> a former CPA and Mark really new the kids and the system since he'd
> been here for like forever. So we ran that by Jim (superintendent) and the
> Board said OK. Now we have co-math chairs.

Both of these responses were coded as being creative. Principal A's is

demonstrating creativity in the framing of the problem by being very inclusive. First, she

actually redefines the problem by making it a decision of hers to a decision of the

department. The problem is not how she is going to decide the new department chair, it is

how will she facilitate the department's selection of the new chair. She then helps them

frame the problem beyond the initial simplistic question of who do you want to be the chair. She makes sure the department is considering the actual duties that are pending.

Principal B also shifts the decision to the science department but he then allows the group to redefine the problem again. Instead of simply, "who do we choose", they are now considering a unique solution that maximizes individual abilities within the group. By moving beyond the presented definition of the problem, he was able to potentially achieve a greater solution. In both cases, the principals demonstrate creative problem solving according to the model. Each of these principals also made at least one association with delocalized empathy as well. Principal A demonstrates two empathetic leaps in the following discussion during the tardy scenario:

> Sometimes people have more important things going on in their lives other
> than school. I'd want to hear what mom has to say, maybe there's
> something bigger in her world than getting here on time. Then again, if
> you get relaxed on tardies it can get out of hand real quickly.

In the above example the principal considers the potential motivations of the mother and also the precedent set for others.

But there was one very strong exception to this pattern with respect to the habitually truant student. Several principals who had very little tendency to demonstrate creative problem solving in their approach to the scenarios were very quick to consider redefining the problem for this situation. Thirteen principals directly and nearly immediately considered the hypothetical redefinition of the problem from habitual truancy to one of residency. Of these thirteen, only one had demonstrated creativity in problem definition beyond the truancy scenario and all thirteen had some indication of policy shielding. It would seem that there is something about the issue of truancy that is

136

closely related to the issue of residency.

<p style="text-align: center;">Ethical Inclusion and Creative Problem Solving</p>

The relationship between ethical inclusion and creative problem solving essentially mirrors that of empathetic awareness and creative problem solving. Principals who demonstrated an ability to incorporate an ethical framework beyond their own tended to engage in creative problem solving. Of course, according to the model employed, ethically inclusive statements during problem solving would be categorized as examples of inclusive framing and therefore, ethical inclusion is by definition, creative. However, any principal with at least one identified incidence of ethical inclusion had two or more instances of creative problem solving. Ethically inclusive thought is generative thought and fosters creative problem solving but it is possible to be a creative problem solver without being ethically inclusive. Also, while ethical inclusivity helps foster empathetic considerations, the interviews show that one can be empathetic without being ethically inclusive.

A principal like Roger was empathetic in that he attempted to predict what others would be feeling or how they might react but it is not clear that he was interested in examining a different ethical framework for those individuals. For example, Roger's response to the bully scenario was extremely empathetic but demonstrated no attempt at any ethical inclusion:

> Well the first thing I'm going to tell mom or dad is that absolutely they
> can sue. They are angry and they have that right. They other thing I'm
> going to tell them is let's stop calling this bullying. We don't use that term
> here at the high school – call it what it is. This is harassment. In fact, I
> might call the cops for them. That's usually how we treat these cases. Kids
> need to understand that it's not different because they are in school. I can't

go outside of here and hit you and get a detention. No. I'm gonna get cited
for that, pay a fine. So why is it different here? It's not. When you throw a
punch, you get arrested, just like real life. Same with harassment. You
pickin' on some kid? Let's let the cops deal with it and see how that goes
for you.

This could be described as extreme policy shielding as Roger uses the law to
supersede school district policy. It effectively removes the situation from his jurisdiction.
More importantly, there was no indication that there was any attempt to consider any
ethical framework other than what was presented. He quickly empathized with the anger
of the parent, even supporting that anger to some degree, but at no time did he consider
another person's emotional or ethical frame. There is clear evidence of empathy but only
at a very localized level. There is no evidence that he considered the accused student's
motivation. Perhaps the accused had been wronged in the past and the presented situation
was motivated out of a sense of injustice or revenge. There could be any number of
mitigating considerations here including cultural, emotional, or contextual factors. It is
not important that Roger did not try to invent what these potential considerations might
be, only that he did not consider that they might exist at all.

Job Satisfaction and Creative Problem Solving

The principals interviewed were asked about their personal job satisfaction. They
were also prompted about their perception of their own effectiveness. Job Satisfaction
(JS) and Personal Effectiveness (PE) were coded by the following indicators:

- JS-Positive: clearly positive about his or her job satisfaction.

- JS-Negative: clearly negative about his or her job satisfaction.

- JS-Neutral: the respondent gave a mix of positive and negative statements or
  made an indication of, "OK" or "it's fine" or similar response.

138

- PE-Positive: clearly positive about his or her effectiveness

- PE-Negative: clearly negative about his or her effectiveness

- PE-Neutral: the respondent was non-committal or gave a mix of positive and negative statements regarding their effectiveness.

- PE-Deflective: the respondent deferred their opinion to another party (i.e. "you'd have to ask my superintendent", or "that's up to my kids"

As mentioned previously, the principal responses to the scenarios were coded for their creativity using the coding process established by the provided model. Transcripts were examined for any relationships between principals who used creative problem solving and their level of job satisfaction. Specifically, was their any relationship between how principals liked their job and their level of creativity in problem solving or their empathetic response or even their ability to assume a different ethical framework?

For job effectiveness, the exact question was, "Are you doing your job well?" and nearly all principals answered positively. However, only eleven felt very strongly that they were being effective. The remaining five had some mitigation or even counter examples to their initial response when additional probing questions were asked. There were two people who qualified their initial positive answers with additional statements:

- "Oh… sometimes I don't know. This is really a tough job to be really effective at. There's just so many people. I think I'm doing all I personally can do but sometimes I don't know, you know. There are some kids we just can't get and I think we could if we had more time or resources or money"
- "…well, it's better but I don't think it's really good yet. I'll get it before I retire."

The neutral follow up comments were:

- "Some days I'm effective and others I'm not… a lot of irons in the fire everyday."
- "I guess I'm having some effect but I don't think it's enough to be honest. There's

too much to do. People like me and I think the school's a good place to put your kid but I don't know that one.

With regard to job satisfaction, nearly all principals initially responded with positive indications of liking their jobs. There was an almost reactive, or practiced response to the question. In fact, it was partially because of this non-reflective response that the question was asked a second time, towards the end of the interview or in follow up questioning. In these cases, six principals mitigated their initial responses somewhat by including qualifying statements such as, "the job is hard", "sometimes it just gets to you", "I get tired of being away from home", "it's exhausting", and "this stuff drains on you." Four of these principals also had the highest incidents of creativity displayed in their problem solving.

While this is not an attempt at a quantitative correlation, a clear, but somewhat disheartening pattern emerges from the data. At first glance, things are somewhat as expected. These are principals who volunteered to be interviewed about their jobs. One would expect that this type of self-selection would tend to include people who have favorable opinions of their performance and the data supports this. It is illustrative to look at Roger, Shawn, and David in light of these considerations.

Both David and Roger indicated that they like their job. Roger has even elected to stay in the principal level position despite offers to move on. But there is contrast in David's description of his job satisfaction revealed near the beginning of our interview and towards the end. Initially, he describes the job in the following exchange:

> *Interviewer*: Do you like your job?
> *David*: Are you kidding? This is the toughest job I've ever had but I love it. I mean it's a middle school – these guys are a little crazy but you know what… I really love this job. [David leans back and shouts out his door]

140

Hey Sarah, do I love this job?

Sarah: [Sarah, David's administrative assistant walks into the office] I'm sorry?

David: Jon here wants to know if I like my job?

Sarah: Oh that's a safe bet. I think everybody loves David.

David: Even Mr. Green?

Sarah: OK, not everyone, but I don't think Mr. Green likes Mr. Green.

This actually plays out like a comedy routine although it was spontaneous. When Sarah was asked if David likes his job, her evidence was that people, "love him." She immediately equated David being liked with his job satisfaction.

In contrast, towards the end of my interview with David, he was asked what he wanted to do with the rest of his career. He became somewhat serene. He still had that look of perpetual happiness on his face but his answer was somewhat tempered:

David: "I don't know. This is hard and there's just not enough time or money. I mean I love it, but I don't know. What do I want to be when I grow up?"

Interviewer: "Do you want to move up the food chain to central office?"

David: "Oh, I don't know. That seems kind of distant. I mean I have my letter and all [superintendent's letter of eligibility] but that seems kind-a political."

Interviewer: "But do you think you could make things better for other principals?"

David: "Sure – that would be great. In fact, I mean, maybe that's the ticket; to advocate for more time, better student/principal ratios. Yeah… that's interesting.

David certainly appears to like his job but what is David's longevity? Has his penchant for creatively exploring presented problems created an environment that is not sustainable over the long term?

141

In a follow up phone interview with Roger, I asked him if he would describe how his parents and teachers feel about him. He offered the following:

> I think so… I think there is a great deal of mutual respect. My teachers and my parents know I am always working for them and I put in long days. They know I will always be fair and consistent. People appreciate that. That's why I've been here for so long… I'm fair and I listen to people. I really want to help. I don't see the students as much because now I have two assistants. The assistantship is where you deal with a lot of students face-to-face so I don't get with the students as much as I like and the ones I do are often in some serious trouble. I joke around with some of them at games and in the halls. Yeah, I think that everyone knows that I'm in it for them.

David's secretary defines David's success in terms of being loved while Roger defines his success by respect. David's approach to the scenario of the 7th grade student shows an avoidance of policy shielding coupled with ethically inclusive thought and delocalized empathetic awareness. Roger binds his empathetic ability to intentional policy shielding. Both appear capable of bringing about resolution but each with a remarkably different approach. Much of what separates Roger and David occurs behind closed doors.

Roger reported a very high personal effectiveness as well as a very high job satisfaction. It was evident from the interview that he loves his job and his responses support that. His answers on the scenario questions indicate that he is empathetically aware, utilizes policy shielding, but had very limited evidence of ethical inclusion. Shawn reported relatively low job satisfaction and neutral personal effectiveness. He was also highly empathetic at a local level but indicated little evidence of policy shielding and limited ethical inclusion. David, who proved highly creative in his scenario responses according to the model, actually tempered his personal effectiveness and job satisfaction

142

responses considerably. As mentioned previously, David's reflection on what he wants to do in the future indicates his current level of satisfaction may not be as high as his initial exuberant response indicated. He says, "This is hard and there's just not enough time or money. I mean I love it, but I don't know."

Principals who demonstrated a tendency to be empathetically aware and ethically inclusive did not engage in as much policy shielding as those who did not. Again, David provides a contrasting approach to that of policy shielding. When asked, "what do you feel the role of policy or law is to your job" David replied, "Policy is very black and white. Some people are really comfortable with that. I like to dance in the grey." It was clear that this thought hadn't just come to him; this was something he had said before, maybe many times. It wasn't so much that it felt practiced, but that perhaps he had come across this little mantra the hard way.

I asked him to describe what it is like there, "dancing in the grey." His initial response was almost mischievous with him rubbing his hands together and providing an exaggeration of the grin already on his face "It's a blast. These are kiddos and families with problems and issues and it's fun to get in there and play with this, this stuff." I asked him, "…wouldn't it be easier to just go with whatever the rule says? Like the truancy citation we discussed... why not just send the letter, right?" David paused a moment and shared:

> *David*: It's harder sure, sure it is. I mean, there's some, some pretty bad
> stuff out there and when you start asking questions you get answers that
> makes it worse. But I don't know… it's, it's like you gotta look at it all,
> you know, or you might miss something. You might miss that kid who
> really needs something or is really hurt. Like I'm not sending one of those
> fines home to a parent for a truancy issue when I know dad lost his job.

What the hell's that do? I don't know… you just have to look at people.

Interviewer: But doesn't that make the job harder?

David: Yeah, yeah. I mean it eats at you sometimes, you know? I guess over time, yeah. But hey – it's a middle school – three years is all I got with them. We do as much as we can but then they move along. Of course, you know, we get a whole new batch every year too.

This exchange indicates that David is personally affected by his interactions with his students but he feels obligated to do so out of some internal motivation. This exploratory investigation indicates that being highly empathetic and ethically inclusive might lead to more creative problem solving but it may have a negative emotional impact on the principal.

Summary

The findings present three variables that describe the problem-solving process of principals. Policy shielding is the intentional or unintentional use of policy to avoid problem solving. Avoiding policy shielding can uncover important, underlying factors not presented with the initial decision. This was evidenced in several interviews where principals were able to uncover issues such as a grieving child or potential child neglect by intentionally avoiding the blind application of policy. Conversely, policy shielding is an efficient process for the execution of the job duties of the principal. In every situation where the initial application of policy was avoided, the resultant problem solving efforts took additional time.

Ethical inclusion is when the principal considers the ethical stance of other individuals involved in the decision. This ability allows the principal a deeper understanding of the motivations of others involved in the decision. As the parking space scenario responses describe, principals considering the potential ethical stance of the

144

teacher generated additional motivations for the request of a new parking spot including professional respect, medical issues, and potential staff conflict. Additionally, the principal that interviewed the disciplined student was able to uncover a strong sense of injustice that was fueling a wide range of destructive behaviors. Ethically inclusive thought allows for the generation of additional alternatives in the decision-making process and allows for a wider empathetic response.

Finally, delocalized empathy involves sympathetic extension to individuals or groups of individuals beyond those immediately involved in the decision process. It is this broad empathetic footprint that helps the principal project various stakeholder responses. The negative impact of only employing localized empathy is perhaps best demonstrated by Shawn's consideration of the student athletes' desire to attend the final wrestling tournament during the school day where he failed to empathize with the potential reactions of the boys' parents and the superintendent. His inability to consider the emotional response of those not involved in the immediate decision caused parents to complain and the superintendent to reprimand him even though his initial inclination was to do what was best for the students.

Each of these variables has been discussed individually as well as their relationship to each other and creative problem solving. These findings indicate that policy shielding is the pivotal juncture for the start of the problem-solving process. If policy is used to make the decision at the outset, then no problem solving occurs. Once policy shielding avoidance is entertained, then the ethical considerations of the principal become important in decisions of interpersonal action as they fuel the empathetic scope involved in the problem-solving process. What the implications of these findings are and

how these findings impact the profession of principal and principal preparation is the

focus of the final chapter.

CHAPTER 5

CONCLUSIONS

This investigation set out to understand the process of problem solving for those

in the position of public school principal. Policy shielding, ethical inclusion, and

empathetic awareness are elements that influence the problem-solving process of the

principals involved in this study. Examining principal problem solving with these factors

in mind helps bring insight to approaches that principals are likely to pursue as they make

decisions and these findings provide direction for principal preparation programs. This

chapter begins by reviewing the research process and then answering the research

question based upon the interview data. Next, a discussion of how the findings of this

research may apply to certification programs is presented. The chapter concludes with an

examination of how future research may build upon the foundation established in this

investigation.

Understanding Problem Solving of Principals

The job of a public school principal involves deciding how local, state, and

federal guidelines are applied to the contextual situations involved in running a school

(Web, 2005). This decision-making process appears to be a regular component of the

daily job duties as described by the available literature and by those principals

interviewed for this study. Problem solving is described as a process that may precede

decision making whereby alternative courses of action are generated for the decision

(Arp, 2005). The findings in this study show that when presented with a hypothetical

decision, principals did not engage in problem solving a majority of the time. In these

situations, principals tended to rely on established policy or protocols, a process referred

to as "policy shielding." However, principals who did engage in problem solving tended to do so through expanded ethical and empathetic considerations and doing this produced new alternative courses of action or uncovered underlying problems not presented in the initial decision. How these findings were determined is presented in the following section.

A Model for Describing Problem Solving

The problem-solving process is examined using a model adapted from the field of business leadership education. This model uses four parameters by which a problem-solving process can be more richly described. Applying this model to decision-making processes by principals, the "definition" parameter examines the starting point for the problem-solving process by describing whether the principal accepted the situation as presented or attempted to explore additional possibilities. The "framing" element considers what variables the principal is considering and what value he or she has ascribed to each variable under consideration. Creative problem solving is indicated by the consideration of variables not initially presented in the original decision. The "linking" parameter examines the connections and influence that the principal considers between these variables. Simple problem solving involves a linear, cause and effect chain between individual variables where as creative problem solving involves multiple linkages that consider the interdependency of the variables under consideration. Finally, if the principal articulated potential resolutions or solutions, the "architecture" element of the model describes whether the principal described a single possible outcome or more than one. The model allows for each instance of problem solving to be examined systematically and provides language to describe the process.

148

Review of Findings

This model was applied to 133 decision-making situations that were observed in interviews with 19 serving principals. Forty-one of these decisions involved the principals describing difficult decisions they made in their role as principal and 92 involved the principal describing how she or he would have responded to hypothetical scenarios. The model reveals that in a majority of decisions, the principals in this study did not employ problem solving. In most cases, the principals made decisions based upon the available information and the existing school policy alone allowing for no problem solving activity.

Policy Shielding

The act of using policy to make a decision when problem solving could be employed is process I have identified as "policy shielding." For example, principals were asked to describe how they would address a parent request to have a seventh grade student take a world language course one year earlier than the established school board policy. The majority of principals responding to this scenario by deferring to the school policy with comments including: "there's a process here that is tied to a bigger picture" and, "I don't think our middle schools can do that. Scheduling is very tight." In these examples, the principals defer to the rules in place and the answer to the parent is, "no". The application of the model in these situations indicates that the process stops right at the very beginning. The decision to be made is never reexamined and is made based on only the information given. No problem solving is engaged. However, when problem solving is entertained, additional problems or important facts may come to light.

Problem Solving

The generative nature of problem solving is perhaps best evidenced by the data from the truancy scenario presented in the interviews. In the truancy scenario, the principal is presented with a hypothetical girl that has already been late to school twelve times and served three detentions. She is headed to her next level of consequences with one more tardy. By law, all schools in Pennsylvania must have procedures in place to address truancy and so the scenario as presented calls for a simple decision: apply the next level of consequences or not. In this case, several principals sought to expand their understanding of the decision presented by expressing concern that there may be additional issues to consider. Specifically, the data from the interviews indicate that the empathetic or ethical considerations of the principals uncovered new problems or unmet needs that were not present in the original decision. Several of the principals interviewed in this study expanded their definition of the problem to include things such as the possibility of bullying on the bus, health issues of the child, and even problems of residency. Each of these considerations produces new alternatives for addressing the situation of the truant child. One principal related a personal account of an investigation into a habitually truant student that uncovered a boy dealing with the grief of losing his father. Another principal recalled her investigation into a truancy situation that revealed a boy in a potential situation of child neglect. In these cases, the problem-solving process complicated the initial decision of what to do with the truant child by revealing additional underlying problems that require redress.

As described in the review of literature, problem solving involves the

consideration of salient information. The findings from interviews conducted in this research show that some of the salient facts considered by principals are explicitly stated at the start of their decision-making process. In the truancy example, this would include the number of late arrivals to school for the child and the policy that indicates what consequence occurs at each level of truancy. As the problem-solving process moves towards creative or generative thought as described by the model, the salient points considered are more implicit. When the principal decides to expand the framing of the problem by talking to the mother of the truant child, she learns of the child's dislike of the bus ride as well as her husband's passing. The saliency phase uncovers implicit need that goes beyond the parameters of the original decision.

However, this increase in understanding comes at the cost of efficiency. Continuing with the truancy scenario, the most direct course of action is to simply apply the next level of discipline consequences to the truant child. The decision can be made in an instant and then the steps of the school truancy policy serve to bring resolution to the issue of the truant child. However, if the principal engages in problem solving, additional time is required. In the truancy scenario discussed above, one principal had to take time to interview a parent and another principal had to take the time to drive to a child's home. These actions take additional time. Also, the process of initial problem solving may uncover new problems such as the principal who discovered a potentially dangerous situation for one of his truant students during a home visitation. These new problems then also must be addressed.

The time needed to participate in any problem-solving process will always be more than simple decision making and is therefore less efficient. This finding aligns with

the review of literature that reports the "amount of time required" as one of the primary reasons for principals being dissatisfied with their job (NAESP, 2008). Using policy to avoid this problem solving activity avoids the complications uncovered during the problem-solving process.

Answering the Research Question

When presented with a decision to be made, the problem-solving process of the principals in this study is understood to be a balance of two potential actions. First, there is evidence from the interviews that policy shielding may insulate principals from having to become involved in the "bumpy" and "sticky" entanglements of interpersonal problem solving. Policy shielding fosters a quick initial resolution and this means that following policy is emotionally and temporally efficient. Second, engaging in creative problem solving is a generative process that produces alternatives beyond those present in the initial decision. The interviews in this study indicate that being ethically inclusive and having a wide empathetic scope allow for creative problem solving to occur and therefore, an opportunity to discover additional problems that underlie the initial presented problem. These newly uncovered problems may be significant and therefore require additional time and/or resources.

Application for Principal Preparation Programs

The introductory chapter establishes that the certification process for principals needs improvement on many levels. Levine (2005) indicates that MBA programs have similar preparation experiences that are being successful after a recent wave of reform and that there may be relevant practice in these programs for principal preparation. Martin (2007) and others suggest that instruction in creative problem solving is one

element of successful MBA programs. Because Brown (1970) established that there are differences between educational and business leadership and because no research currently exists regarding the phenomenon of principal problem solving, this investigation describes the characteristics of the problem-solving process of principals to provide information for further research into improving the principal certification experience. While the findings here represent only a beginning, deconstructing the problem-solving process provides three areas as potential avenues for positive change.

Improving Preparation: Intentional Policy Shielding

The findings show that problem solving takes additional time over deciding based upon policy alone. Therefore, it is important to have principals openly reflect on the process of policy shielding on two fronts. Principals can benefit from being aware that policy shielding can be used as an intentional process to improve efficiency and reduce interpersonal involvement. But perhaps even more importantly, the findings suggest that principals would benefit by being trained in the intentional avoidance of policy shielding when possible in order to minimize unnecessary harm. The interview data support this with several examples. The principal who avoided the tardy policy to interview the parent of the truant student discovered a grieving child. The principal avoiding the discipline policy had a discussion with a misbehaving child that revealed a culture of injustice. A principal avoiding the athletic policy was able to let his athletes feel appreciated and "listened to."

The principals are in a unique position in that they are in contact with both the individual and the school system. The principal is a conduit for personal needs to be coordinated across organizational elements. As evidenced by the three examples above, a

principal functioning out of universal policy application alone may fail the individual

stakeholder. The truant student goes on grieving, the child's feeling of injustice is

maintained, and the student athletes feel marginalized. Considering salient points beyond

what the policy addresses allows the principal to solve additional interpersonal problems.

However, there is also evidence from the interviews that the principal functioning

from the interpersonal, particularism-centric level require additional time to render

decisions. As the amount of time available to a principal is limited, there is a distinct

possibility that the process of creative problem solving may require more time than is

available thereby leaving problems unsolved. As the principal interviews have

demonstrated, individual needs are not always readily known even by those involved.

The student misbehaving in class did not articulate that he was doing so out of a feeling

of injustice and the child who was about to be expelled for the possession of a look alike

weapon was not aware of the impact this may have on his academic and social

development. The consideration of these needs takes time.

While the work of Sergiovanni was not specifically aimed at problem solving, his

efforts to apply Parson's measure of society and community are useful here. He explored

the community's relationship to its own norms as a means of understanding how leaders

interact with constituents. Sergiovanni's continuum ranging from universalism to

particularism mirrors the policy shielding process described above. This provides a

valuable lens for examining the policy-shielding construct. Sergiovanni was describing

cultural and community norms. His intent was to bring this process out of subconscious,

reactive behavior and into conscious consideration. By being aware of cultural and

personal tendencies towards either universalism or particularism, one can move towards

more effective relationships within the community of schools. Based on the findings outlined in Chapter 4, it can be argued that the same process applies to policy shielding. Policy shielding can be described as a particular application of universalism. However, instead of a cultural norm or reactive stance, policy shielding becomes a process for creating distance from ethical and emotional entanglements.

Also, the usefulness of the process is only understood when one becomes intentional with policy shielding. Much like Sergiovanni's call for school leaders to become aware of their universalism or particularism stance with regard to their school culture, this research would indicate that school leadership would benefit from becoming fully aware of policy shielding and its potential benefit and harm. As universalism can be the cause of unintentional harm, so excessive policy shielding may distance the principal from completely understanding deeper meanings for presented problems. The grieving child may develop emotional or social problems; the child feeling a sense of injustice may escalate his rebellion to interfere with the academic climate in the classroom; the student athletes may become less interested in participating in future extra curricular activities. These are, of course, hypothetical extensions of cases presented in the interview data but they are not outside the scope of reason.

However, policy shielding creates emotional distance by not involving additional personal considerations. The principals who expressed some reservation in their job satisfaction during the interviews for this study did so with statements that indicated that sometimes the interpersonal issues, "just get to you." One principal stated, "There's just so many people. I think I'm doing all I personally can do but sometimes I don't know, you know. There are some kids we just can't get and I think we could if we had more

time." The selective application of policy shielding can simplify some problems when the emotional costs are high or time is short. This may be a necessary tool to protect the principal from becoming personally overwhelmed by the interpersonal requirements of problem solving.

Improving Preparation: Ethical Awareness

The research of Hess and Kelly suggests that there is some coursework in the principal certification process that covers concepts such as community involvement and general cultural awareness. However, there is no evidence that there is specific training on ethical and or cultural nuances germane to the geographic areas where the principals will be serving. The interview data presented in Chapter 4 suggests that the ability to be ethically inclusive improves the opportunity for creative problem solving. For example, considering the personal motivations of the teacher who wants a better parking spot revealed several new courses of possible action. By entertaining that the teacher may be motivated by pride or medical need, the principal becomes better able to address the problem behind the decision regarding whether to award a new parking spot or not. The principal who was aware of the cultural traditions of her parents was able to interact in a manner that she described as being more effective. The principal developing a dress code was able to include language that protected religious practice.

While becoming fully aware of all of the potential ethical and cultural considerations that could possibly be relevant might be problematic, principal certification programs could seek to identify the most likely cultural interactions in their geographic areas and include such considerations in the provided course and fieldwork. The limited data from this study suggests that ethical, religious, ethnic, and

socioeconomic elements may be useful.

As discussed in Chapter 2, this investigation represents seven different accrediting institutions for the principals interviewed. Five of the seven were located within the same geographic area as the sampling pool and the other two, even the one out-of-state school, were less than twenty miles outside this very narrow region. While not an exhaustive investigation by any standard, the projection makes intuitive sense at a practical level. The literature regarding empathy presented in Chapter 2 indicates that an increased ethical understanding allows for a broader empathetic scope. Therefore increasing the ethical consideration ability of principals also has bearing on their ability for delocalized empathy

While research is needed to determine the degree to which it is true, it is not unreasonable to assume that most principals serve in the general geographic area of their certification program. If it is true that principals tend to serve close to their place of certification, then the leadership of certification programs could benefit from working with local districts to explore the cultural challenges in their schools.

Improving Preparation: Creative Problem Solving

As described in the review of literature, there is support for the formalized instruction of creative problem solving. As the application of creative problem solving has been demonstrated to have the ability to uncover unrealized problems, the inclusion of problem solving training in the principal preparation process may prove beneficial. Additionally, the work completed in the field of business education leadership development suggests that the inclusion of formalized problem solving training is possible (Latham, 2004) and could have positive results (Martin, 2007).

157

However, we know from additional research that the job of the principal is not identical to that of the business leader (Brown, 1970) and this is where the findings of this research provide direction. The decision making explored in this investigation indicates that there is a significant interpersonal component to the decisions made by a principal. In fact, nearly every decision and problem-solving event explored as a part of this investigation involved interpersonal considerations. Therefore, any formalized training in problem solving for principals would ideally include ethical and empathetic training.

Future Research
Ethical Inclusion and Origin of Certification

While some evidence intuitively supports for concept that principals serve in the same geographic location as their certification program, a formal investigation would provide verification. Such a study would be most effectively carried out with the support of the accrediting body for each state. For example, in Pennsylvania, the Pennsylvania Department of Education has the certification records and employment location for all certified, serving principals in Pennsylvania. The process would be a relatively simple data analysis if the data were made available. Where this type of data is unavailable, a simple survey could be conducted and distributed electronically or physically, though this would be at the cost of reliability and inclusiveness. At the very least, individual certificating institutions would benefit from tracking data on their own graduates.

If it can be established that principals do serve in a geographic region in proximity to the location of certification, these programs will be better able to prepare candidates for the social issues that they will encounter. Each certification program could provide field experiences, coursework, and readings that will assist the principal in the areas

associated with the ethical nuances of their region. Ethical considerations may include the various cultural populations, socioeconomic diversity, historical information, and regional politics. Principal certification programs could actively engage local serving principals to identify these issues and then bring them to the certification experience.

Policy Shielding and Job Satisfaction

The data indicates that there may be some relationship between policy shielding and job satisfaction. In this study, principals who relied on policy to make decisions greatly reduced the amount of time and interpersonal action required when a decision was presented. This study also suggests that principals who engage in policy shielding may have less emotional entanglement with the events of their job. However, while these demands of time and resource require more effort from the principal, it seems that some principals derive satisfaction from the related interpersonal action.

 Given the limited size of the sample and the localized geographic area of this study, a more comprehensive investigation is in order to explore the central question, what is the relationship between job satisfaction and policy shielding? A quantitative investigation that utilizes a survey instrument to measure the variables of job satisfaction and the principal's tendency to rely on policy could be used to determine if any correlation exists. The development of a policy shielding survey would be a significant undertaking as no measure currently exists.

An investigation into the relationship between policy shielding and job satisfaction could explore this relationship while accounting for other variables including gender, age, experience, the number of hours worked, and the number of students and teachers under the principal's leadership. As discussed in the introductory chapter and the

159

review of literature, there is currently a lack of quality candidates for existing principal

vacancies and there is a massive pending increase in retiring principals (NAESP, 2005).

This shortage of leaders is due in part to the perception that the position is undesirable

due to demands on the principal. Research that investigates factors that contribute to or

detract from the level of job satisfaction is of critical importance.

Empathetic Awareness and Training

Findings from the current study suggests that empathetic awareness is a valuable

trait in principals in that a broader application of empathy during problem solving may

uncover underlying issues. However, as this study is limited to 19 principals in a small

geographic area of Pennsylvania, additional investigation into the specific parameters of

empathy and problem solving is in order. Research is needed on two fronts. First, the

relationship between empathetic tendencies and principal effectiveness must be explored.

Second, if empathy is a desired trait in principals, then it must be determined if empathy

can be taught in a formalized setting. If empathetic considerations can be shown to

improve principal performance, then principal certification programs could begin

incorporating such training. If not, then the admissions process for principal certification

programs could establish some procedure by which to include empathetic ability into the

application for candidacy.

A quantitative investigation into the relationship between empathetic ability and

principal effectiveness would be a difficult undertaking. It may be problematic to define

an "effective" principal but this could be done along several fronts including standardized

student achievement, superintendent review, or even personal reporting from the

principals themselves. Additionally, an instrument for the measurement of empathetic

ability would have to be found or developed. However, data from this research would provide principal preparation programs additional information for how to improve the principal preparation process.

Conclusion

The problem-solving process of principals is complex and highly interpersonal. The interviewees in this study provide evidence that principals struggle with balancing efficiency in the execution of their job duties and expending personal time and energy to engage in problem solving. Because principals make decisions and solve problems that affect the lives of many individuals, improving the problem-solving process is of paramount importance. To bring the change to our schools that Levine (2005) and others suggest is desperately needed, we need to fundamentally redesign both the job description and the preparation process of the principal to allow for the type of interpersonal consideration necessary to do the job of problem solving well.

The thread of the American child's education that starts in Kindergarten and weaves through twelve more years of curriculum, ties such a vast array of experiences and people together that truly comprehending all that occurs is almost impossible. Complications and competing needs often knot these threads and shorten their contribution to the whole. Attempting to undue a single knot by cutting it away weakens the fabric of schools. Instead, it is the principal's duty to trace the relevant strands of circumstance to their ends and to loosen the entanglements that bind them. The work of the principal involves the lives of children in their formative years who may be less able to advocate for themselves and hide the difficulties of their lives from those who seek to help them. Principals who employ creative problem solving as a matter of intentional

practice, may uncover these issues and foster a safer and more responsible school

environment.

References

Americans with Disabilities Act. (1990) 101-336, 104 Stat. 327-U.S.C. § 12101 C.F.R.

Ahmed, S. (2004). *The cultural politics of emotion*. Edinburgh: Edinburgh University Press.

Anderson, R. E., & Dexter, S. L. (2000). *School technology leadership: incidence and impact - teaching, learning, and computing*. National Science Foundation.

Antonakis, J., Cianciolo, A., & Sternberg, R. (Eds.). (2004). *The nature of leadership*. Thousand Oaks: Sage Publications.

Archer, J. (2006). *States get tough on programs to prepare principals*. Education Week, *26*(8), 10-10.

Argyris, C. (1976). *Single-loop and double-loop models in research on decision making*. Administrative Science Quarterly, *21*(3), 363-375.

Arp, R. (2005). *Scenario visualization: One explanation of creative problem solving*. Journal of Consciousness Studies, *12*(3), 31-60.

Bar-Yam, Y. (2003). *Dynamics of complex systems (Studies in nonlinearity)*. Boulder, Colorado: Westview Press.

Baron-Cohen, S. (2003). *The essential difference*. New York: Basic Books.

Bass, B., & Gardner, W. (2005). *Authentic leadership: Getting to the root of positive forms of leadership*. The Leadership Quarterly, *16*(3), 315-338.

Benson, J., & Dresdow, S. (2009). *Common sense and integrative thinking*. Management Decision, *47*(3), 508-517.

Berger, D. M. (1987). *Clinical empathy*. Northvale: Jason Aronson, Inc.

Berner, R. (2005). *The Academic: Roger Martin*. Business Week.

Bhushan, N., & Rai, K. (2004). *Strategic decision making - Applying the analytic hierarchy process*. London: Springer.

Blase, J., & Blase, J. (2000). *Effective instructional leadership: Teachers' perspectives on how principals promote teaching and learning in schools*. Journal of Educational Administration, 38(2), 130.

BLS. (2007). *Education administration - occupational outlook handbook*. Bureau of Labor Statistics. Retrieved from http://stats.bls.gov/oco/ocos007.htm#training.

Brown, J. S. (1970). *Risk propensity in decision making: A comparison of business and public school administrators*. Administrative Science Quarterly, 15(4), 473-481.

Carlyle, T. (1869). *On heroes and hero worship and the heroic in history*. London: Chapman and Hall.

Chamberlin, T. (1890). *The method of multiple working hypothesis*. Science, XV(93).

Chamberlin, T. (1897). *The method of multiple working hypothesis*. Journal of Geology, 5, 837-848.

Chemers, M. M. (1997). *An integrative theory of leadership* (1 ed.). Mahwah: Lawrence Erlbaum Associates.

Clegg, S., Kornberger, M., & Rhodes, C. (2007*). Organizational ethics, decision making, undecidability*. Sociological Review, 55(2), 393-409.

Connecticut State Legislature. (2000). *The Principal Shortage: Issues and Recommendations*. A Hearing of the Connecticut State Legislature. Hartford, CT.

Cotton, K. (2003). *Principals and student achievement: What the research says*. Alexandria, VA: Association for Supervision and Curriculum Development.

Covey, S. R. (1990). *Principle-centered leadership*. New York: Fireside.

164

Cresswell, J. C. (1998). *Qualitative inquiry and research design: Choosing among the five traditions*. Thousand Oaks, CA: Sage Publishing.

Creighton, T. B. (2008). Personal email correspondence regarding research into principal preparation, February 2, 2008.

Creighton, T. B., & Jones, G. (2001). *Selection or self-selection? How rigorous are our selection criteria for education administration preparation programs?* Paper presented at the Annual Meeting of the National Council of Professors of Educational Administration.

Dawson, C., & Rakes, G. C. (2003). *The influence of principal's technology training on the integration of technology training in schools*. Journal of Research on Technology in Education, 36(1), 29-49.

De Bruin, W. B., Parker, A. M., & Fischhoff, B. (2007). *Individual differences in adult decision-making competence*. Journal of Personality & Social Psychology, 92(5), 938-956.

Decety, J., & Jackson, P. L. (2004). *The functional architecture of human empathy*. Behavioral and Cognitive Neuroscience Reviews, 3, 70-100.

Descartes, R. (1486). *The philosophical writings of Descartes* (J. Cottingham, Trans.). Cambridge: Cambridge University Press.

Dott, H. (2006). *Rock stars: Thomas Crowder Chamberlain (1843-1928)*. GSA Today, 16(10), 30-31.

Drum, R. L., & Wells, T. J. (1984). *A survey of teachers' opinions and practices regarding the teaching of problem solving skills*. Paper presented at the Annual

Meeting of the American Association of Colleges for Teacher Education. Corpus Christi University, TX.

Duncker, K. (1972). *On problem-solving* (L. Lees, Trans.). Westport: Greenwood Press, Publishers.

Educational Research Service. (2000). *The principal, keystone of a high-achieving school: Attracting and keeping the leaders we need*. Arlington, VA.

Evans, R. (2007). *The either/or dilemma.* 12(1). Financial Times.

Federal Code: Title 20 - Education. (2008). Retrieved June 17, 2009 from http://www.access.gpo.gov.

Fiedler, F. E., & Garcia, J. E. (1987). *New approaches to leadership: Cognitive resources and organizational performance*. New York: Wiley.

Fitzgerald, F. S. (1945). *The crack up*. New York: New Directions.

Fraser, H. (2007). *The practice of breakthrough strategies.* The Journal of Business Strategy, 28(4), 66-74.

Frederiksen, N. (1984*). Implications of cognitive theory for instruction in problem solving*. Review of Educational Research, 54(3), 363-407.

Galotti, K. M. (2007). *Decision structuring in important real-life choices*. Psychological Science*, 18*(4), 320-325.

Geuras, D., & Garofalo, C. (2005). *Practical ethics in public administration* (2 ed.). Vienna: Management Concepts, Inc.

Glenn, A. D., Gregg, D., & Tipple, B. (1982). *Using role-play activities to teach problem solving.* Simulation & Games, 13(2), 199-209.

Glickman, C., Gordon, S., & Ross-Gordon, J. (2001). *Supervision and instructional leadership*. Needham Height, MA: Pearson.

Goar, C. (2007). *Bad or worse? Find a new choice.* (11). The Toronto Star.

Graumlich, G., Baron, J., & Brown, R. V. (1991). *Teaching decision making in the city: Two experiences*. In Teaching Decision Making to Adolescents. (pp. 147-159). Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.

Guba, E., & Lincoln, Y. (1989). *Fourth generation evaluation.* Beverly Hills, CA: Sage.

Hale, E. L., & Moorman, N. H. (2003). *Preparing school principals: A national perspective on policy and program innovations.* Washington, DC: Institute for Educational Leadership and Illinois Education Research.

Hart, A. W., & Pounder, D. G. (1999). *Reinventing preparation programs: A decade of activity*. In J. Murphy & P. Forsyth (Eds.), Educational Administration. A Decade of Reform (pp. 115-151). Thousand Oaks, CA: Corwin Press.

Hess, F., & Kelly, A. (2005). *Learning to lead: what gets taught in principal preparation programs.* Repost from the Program on Education Policy and Governance, 44.

Hickman, C. R. (1992). *Mind of a manager - soul of a leader*. New York: John Wiley & Sons, Inc.

Hoffman, J. N. (2004). *Building resilient leaders.* Leadership, 34(1), 35-38.

Hughes, G. D. (2003). *Add creativity to your decision processes*. Journal for Quality & Participation, 26(2), 4-13.

Hundal, P. S., & Horn, J. L. (1977). *On the relationships between short-term learning and fluid and crystallized intelligence*. Applied Psychological Measurement, 1(1), 11-21.

ISTE. (2005). *National Educational Technology Standards for Students*. International

> Society for Technology in Education.

Jackson, B. (2001). *Exceptional and innovative programs in educational leadership*.

> Paper presented at the Meeting of the National Commission for the Advancement

> of Educational Leadership Preparation. Racine, WI.

Jinkins, M., & Jinkins, D. B. (1998). *The character of leadership*. San Francisco, CA:

> Jossey-Bass Publishers.

Johansen, B. (2008). *Leaders make the future: Ten new leadership skills for an uncertain

> world*: Berrett-Kohler Publishers.

Juran, J. (1964). *Managerial breakthrough*. New York: McGraw-Hill.

Kahneman, D., & Tversky, A. (1979). *Prospect theory: An analysis of decision under

> risk.* Econometrica, 47, 263-291.

Kaufman, R. (1976). *Identifying and solving problems: A system approach*. La Jolla:

> University Associates.

Landis, J. (2006). *Perception of public school principals about preparedness for their job

> duties based upon their certification program*. Unpublished paper. Indiana

> University of Pennsylvania.

Landis, J. (2007). *Perception of preparedness in school principals as related to their

> certification through Millersville University's administrative leadership program*.

> Unpublished paper. Indiana University of Pennsylvania.

Latham, G., Latham, S. D., & Whyte, G. (2004). *Fostering integrative thinking: adapting

> the executive education model to the MBA program*. Journal of Management

> Education, 28(1), 3-18.

Leithwood, K., Louis, K. S., Anderson, S., Wahlstrom, K. (2004). *How leadership influences student learning. Review of research*. Wallace Foundation

Lencioni, P. (2002). *The five dysfunctions of team* (1 ed.). San Francisco: Jossey-Bass.

Levine, A. (2005). *Educating school leaders*. Columbia: Columbia University.

Library of Congress. (2009). Search Results: Thomas Sergiovanni. Retrieved August 12, 2009, from http://www.loc.gov/fedsearch/metasearch.

Lieber, R. (1999). *Learning and change - Roger M*artin. Fast Company (30). Mansueto Ventures LLC.

Lipshitz, R., & Mann, L. (2005). *Leadership and decision making: William R. Ruckelshaus and the Environmental Protection Agency.* Journal of Leadership & Organizational Studies (Baker College), 11(4), 41-53.

Lonergan, D. C., Scott, G. M., & Mumford, M. D. (2004). *Evaluative aspects of creative thought: Effects of appraisal and revision standards.* Creativity Research Journal, 16(2/3), 231-246.

Maier, N. R. F., & Solem, A. R. (1962*). Improving solutions by turning choice situations into problems.* Personnel Psychology, 15(2), 151-157.

Martin, R. (2007). *Opposable mind: How successful leaders win through integrative thinking*. Harvard Business School Press Books.

Martin, R. (2008). Personal email correspondence regarding integrative thinking and educational leadership, February 7, 2008.

Martin, R., & Austen, H. (1999). *The art of integrative thinking*. Rotman Management, 3 (6).

Maule, J., & Villejoubert, G. l. (2007). *What lies beneath: Reframing framing effects.* Thinking & Reasoning, 13(1), 25-44.

McDermott, R. (2004). *Prospect theory in political science. Gains and losses from the first decade.* Political Psychology, 25, 289-312.

Mertens, D. M. (1998). *Research methods in education and psychology: Integrating diversity with quantitative & qualitative approaches.* Thousand Oaks, CA: Sage.

NAESP. (2008). *NAESP fact sheet on the principal shortage.* Alexandria: NAESP, National Association of Elementary School Principals.

NCATE. (2009). *State Relations FAQ.* Retrieved June 17, 2009, 2009, from http://www. ncate.orgstates/stateRelationsFAQ.asp?ch=95.

NCEE. (1983). *A nation at risk.* National Commission for Excellence in Education. Washington, DC.

NCLB. (2001). *No child left behind.* Retrieved October 10, 2006. From www.ed.gov /nclb/landing.jhtml.

Nettles, S. M., & Herrington, C. (2007). *Revisiting the importance of the direct effects of school leadership on student achievement: the implications for school improvement policy.* Peabody Journal of Education, 82(4), 13.

Noddings, N. (1995). *Philosophy of education.* Boulder, Colorado. Westview Press.

NPBEA. (2002). *Standards for advanced programs in educational leadership:* National Policy Board for Education Administration.

Parker, M. (1998). *Ethics and organizations.* London: Sage.

Parsons, T. (1951). *The social system.* New York: Free Press.

Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

Plous, S. (1993). *The psychology of judgment and decision making*. New York: McGraw Hill.

Pounder, D. (2005, May 2005). *Sustaining the pipeline of school administrators*. Educational Leadership, 62, 56-60.

Protheroe, N. (2008). *NAESP's 10-year study of the K-8 principal: A historical perspective.* Principal, 87(4), 46-50.

Ramsay, L. (2008). *Ignore the obvious and embrace the innovative*. National Post. Canwest Publishing Inc.

Reiter-Palmon, R., & Illies, J. J. (2004). *Leadership and creativity: Understanding leadership from a creative problem-solving perspective*. Leadership Quarterly, 15(1), 55.

Reynolds, T. J. (2005). *Lifegoals: The development of a decision-making curriculum for education*. Journal of Public Policy & Marketing, 24(1), 75-81.

Rideout, V., Roberts, D., & Foehr, U. (2005). *Generation M: Media in the lives of 8-18 year-olds* (Executive Summary). Menlo Park: The Henry Kaiser Family Foundation.

Ross, J. A., & Gray, P. (2006). *School leadership and student achievement: the mediating effects of teacher beliefs.* Canadian Journal of Education 49(3), 25.

Roza, M., Celio, M. B., Harvey, J., & Wilson, S. (2003). *A matter of definition: Is there truly a shortage of school principals*. University of Washington.

Rural-PA. (2009). *About Rural PA*. Retrieved June 28, 2009, 2009, from

    http://www.ruralpa.org/about.html

Schachter, H. (2007). *When two thoughts beat as one*. 11(28). The Globe and Mail. CTV

    Globemedia Publishing Inc.

Schrum, L., Bull, G., Knezek, G., Roblyer, M. D., & Thompson, A. (2005). *A proactive*

    approach to a research agenda for educational technology. Journal of

    Research on Technology in Education, 37(3), 217-220.

Sergiovanni, T. (2000). *Leadership for the schoolhouse: How is it different? Why is it*

    important? San Fransisco, California: Jossey-Bass.

Sergiovanni, T. (2008). *Principalship: A reflective practice perspective* (6 ed.). Boston,

    MA: Allyn & Bacon, Inc.

Simmons, S. (2005). *Harsh punishment: a factor that pushes students out* [Electronic

    Version]. The Notebook, 13. Retrieved March 5, 2009,

Solem, A. R. (1992). *Some applications of problem solving versus decision-making to*

    management. Journal of Business and Psychology, 6(3), 401-411.

Staiger, E. H. (1987). *A Preliminary Analysis of Guided Design Using Jungian Typology*.

    Engineering Education, 77(5), 309.

Tannenbaum, R., & Schmidt, W. (1957*). How to choose a leadership pattern*. Harvard

    Business Review, 32(2), 95-101.

Taylor, F. (1911). *Principles of scientific management*. Norwood: The Plimpton Press.

Tönnies, F. (1887). *Gemeinschaft and gesselschaft [community and society]* (C. P.

    Loomis, Trans.). New York: HarperCollins.

Treffinger, D. J. (1995*). Creative problem solving: Overview and educational implications.* Educational Psychology Review, 7(3), 301-312.

Trochim, W. (2000). *The research methods knowledge base* (2nd ed.). Cincinnati, OH: Atomic Dog Publishing.

Tversky, A., & Kahneman, D. (1981). *The framing decisions and the psychology of choice.* Science, 211, 453-458.

USAC. (2008). *Helping Keep America Connected*. Universal Service Administration Company: Retrieved April 1, 2008, 2008, from http://www.universal service.org/sl/

Van Praet, N. (2009). *GM's top strategic consultant*. Financial Post Magazine. The National Post Company

Vroom, V. H. (2000). *Leadership and the decision-making process.* Organizational Dynamics, 28(4), 82-94.

Wadlington, E., & Hicks, K. (1994). *Using process writing to teach problem solving to middle school and junior high students*. Paper presented at the Annual Conference of the Association for Childhood Education International Study. from http://navigator-iup.passhe.edu/login?url=http://search.ebscohost.com/login. aspx?direct=true&db=eric&AN=ED376933&site=ehost-live

Wahl, A. (2008). *The thinker*. Canadian Business, 81(5).

Webb, D. L. (2005). *The history of American education: A great American experiment*. Upper Saddle River, New Jersey: Prentice Hall.

Wilmore, E. (2002). *A subgroup analysis of predictors to certification examination success in differing principal preparation programs*. Paper presented at the

Annual Meeting of the American Educational Research Association. New
Orleans, LA.

Winter, P., Reinhart, J., & Munoz, M. (2001). *Principal certified personnel: do they want the job?* Paper presented at the Annual Meeting of the University Council for Education Administration. Cincinnati, OH

Wong, C. O., & McMurray, N. E. (2002). *Framing communication: Communicating the antismoking message effectively to all smokers.* Journal of Community Psychology, 30, 433-447.

Woodrum, A. (2002). *Culture in education administration: competing values and expectations*. Paper presented at the American Educational Research Association.

Wyschogrod, E. (1981). Empathy and sympathy as tactile encounter. *Journal of Medical Philosophy, 6*(1), 25-43.

Zellner, L., Jinkins, D., Gideon, B., Doughty, S., & McNamara, P. (2002). *Saving the principal: The evolution of initiatives that made a difference in the recruitment and retention of school leadership*. Paper presented at the Annual Meeting of the American Educational Research Association. New Orleans, LA.

Zellner, L., Ward, S., McNamara, P., Gideon, B., & Camacho, S. (2002). *The loneliest job in the world; sculpting the recruitment and retention process of the principal*. Paper presented at the Annual Meeting of the Southwest Educational Research Association. Austin, TX

174

Appendix A

IU Director Communication

December XX, 200X

Dear Director XXXXXXXXXX:

My name is Jon Landis and I am researching the problem solving strategies of

principals in the public school setting as part of my Doctoral Research through Indiana

University of Pennsylvania. I will be interviewing principals regarding their experiences.

As this study is qualitative, I am seeking your advice regarding the identification of

public school principals in your service area who have at least two years of experience

and who might be willing to engage in such a process.

As a former principal myself, I greatly understand the demands upon a principal's

time. It is my hope that this research will help better prepare principals for this critical

and difficult job. I would like to meet with you briefly regarding this process and will

call within the coming week to set up an appointment if your schedule allows. If you are

unable to meet, your input regarding potential candidates would be helpful via email

(jonlandis@mac.com) or via telephone (717-887-8008). I thank you for your

consideration of this request and look forward to hearing from you.

Sincerely,

Jon Landis

Appendix B

Communication to Principal

December XX, 200X

Dear Principal XXXXX

My name is Jon Landis and I am currently involved in a research project to help better understand the difficult job of being a public school principal. Specifically I am exploring the complicated process of decision-making process and problem solving that are a regular part of the principal's job duties. This research is being conducted in conjunction with my pursuit of a doctoral degree through Indiana University of Pennsylvania. You have been identified as someone who may provide useful input in this investigation.

As a former principal myself, I greatly understand the demands upon your time. If you are willing to be interviewed for this study, I will come to your location at a time convenient to you. The interview will take approximately one hour and all findings will be kept strictly confidential. As a participant, you will be entitled to a copy of the final research findings that may prove beneficial. Principals for this study must be fully certified with at least two years of principal experience. Please email (jonlandis@mac.com) or call me at 717-887-8008 if you have concerns that I may address. I will contact your office to arrange an appointment at your convenience if you are willing to participate. Thank you for your consideration.

Sincerely,

Jon Landis

Appendix C

Guideline for Interview Questions

Personal Experience

1. According to PDE, your school is identified as (rural/suburban/urban) with (average/above average/below average) test scores and (low/moderate/high/mixed) socio-economic conditions. Would you agree with that description or do you have additional feedback?

2. Would you please share your professional experience that brings us to this point in your life? (prompt for teaching experience, leadership experience, years of service)

3. What are some qualities you have that are helpful in being a principal?

4. Could you identify some decisions that you have to make as a principal?

[At this point, the interviewee will be prompted to provide examples of decisions that must be made by them. Prompt with different areas such as students, community, teachers, legal, discipline, etc. The provided decisions will be utilized in a cyclic process described in questions 5-8.]

5. Would you please describe how you became aware that this decision needed to be made?

6. How did you approach that decision? (prompt for collaborative, research, and framing considerations)

7. Can you provide any additional details regarding this process? (prompt for cultural, building climate, historical considerations, etc.)

8. What was the resolution? Do you consider this a successful process?

Questions 4-8 should continue utilizing several distinct areas of problem solving. Specifically, decisions that require the application of policy (such as discipline) and that do not require the application of policy (such as room assignments) should be addressed. Personal decisions (such as what cloths to wear) should not be addressed.

When this process becomes exhausted or the time elapsed reaches thirty minutes, move to question nine followed by the scenario questions.

9. Could you describe how policies (board, state, or federal) impact your decision-making?

Guideline for Interview Questions

Scenario

I will provide you with some details about a hypothetical situation and then ask you some specific questions about how you might proceed. These situations are completely fictitious and any semblance to actual situations is circumstantial.

Scenarios appropriate for elementary and secondary principals

1. A parent schedules a meeting with you. During the meeting, he insists that another student in an older grade is bullying his son. He is considering pressing charges against the older boy and the school for allowing this to occur.

2. A student has attained her 12th late arrival to school. A letter home and several phone calls have not improved the situation. Her mother brings the student to school everyday. When she is late, it is anywhere from one to 15 minutes. Her first period teacher is angry that nothing is being done because her continual late arrivals are disruptive. The girl has served 3 detentions for this behavior prior to this late arrival.

3. Your faculty parking spaces are assigned by number and very limited. A senior faculty member has expressed dissatisfaction with her spot as it is very far from the door and is under an old tree that is constantly dropping branches. There is no policy or procedure to assign spots. As a person leaves, his or her replacement gets the open slot.

4. The science department chair is vacated by retirement. Two faculty members, one with eight years of experience and one with 20 have expressed informal interest. In your opinion, the older, more experienced teacher is less competent and visionary than the younger teacher but the older teacher probably has a majority of the department's support. The principal has the final authority to recommend the department chair to the superintendent.

<u>Scenario appropriate for elementary principals only</u>

During August, you get requests from 15 parents to have their child switched from a particular teacher's classroom. While it is not uncommon for you to have several of these requests each year, these are all for one teacher and all occur near the same time frame.

<u>Scenario appropriate for secondary principals only</u>

A parent of a 7th grade student with a GIEP is requesting a schedule change. Your school currently offers exploratory language in 7th grade (1 quarter of four different languages) and then students select one of those four languages for a level 1 class in eighth grade. This parent is requesting that their child be allowed to take Spanish I in 7th grade as they have already spent some time in Spain and the child has demonstrated some attitude and interest in Spanish.

Appendix D

Informed Consent Form

Thank you for your consideration of participation in this research study. The following information is provided to help you understand the nature of the study in an effort to assist you in deciding whether to participate or not. You have been asked to participate because you are a principal in a public school setting and have two or more years of experience.

The interview that will be conducted is part of my doctoral research preparation for Indiana University of Pennsylvania. The purpose of this study is to determine the nature of problem solving in principals. During this interview, I will ask you questions regarding your experiences as a building principal and how you make decisions and solve problems on a daily basis. I will also provide you with several, brief scenarios that will involve a hypothetical problem and then ask how you might go about seeking resolution.

Your participation in this study is voluntary. There are no consequences for non-participation.

Your identity and all identifying details of your professional setting will be kept confidential.

You may refuse to answer any question or stop the interview at anytime.

There are no known risks associated with this interview.

This study is being conducted as a research project for the completion of the requirements of a doctoral program. All work is supervised by Dr. Robert Heasley, IUP Department of Sociology. You may contact him with questions or concerns at 724-357-2730. I may also use the findings from this study in combination with future research projects, but again, your identity as the interviewee would be kept completely confidential.

Investigator:

Jon C Landis: Doctoral Candidate, Indiana University of Pennsylvania

E-Mail: jonlandis@mac.com

Phone: 717-887-8008

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Services (PHONE: 724-357-7730).