How School Organizational Structures Impact Micro-Level Decision Making

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Abstract

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Schools are complex organizations that are not comprised of single-minded individuals who are equally equipped with knowledge, power, or skill. Schools are not monolithic bodies moving toward collective goals, where school members equally gather knowledge and make sense of it in universal ways. The complexity of the school site necessitates that building leaders rely on a number of groups with members who are skillful at gathering and processing information and making decisions. Group members are constant learners who operate individually, within, and across groups.

This year-long phenomenological study of one elementary school captured how decision-group leaders experientially negotiate the educational environment. The participants were asked to reflect on their practice as decision makers and as learners. Mezirow's Transformational Adult Learning Theory provided the vehicle through which participants' experiences were filtered as they negotiated the micro, meso, and macro environments.

Key findings include principal power, resource allocation, student performance, and ways of knowing, which emerged as broad themes when examining the environmental factors that influence individual decision makers within a collaborative setting.

These results suggest that information is developed, manipulated, and transferred constantly. The knowledge that is attained and created plays a critical role in developing strategies to serve the stakeholders inside and outside of schools. Decision making happens continually throughout the educational environment. Individuals produce the ideas that are talked

about and drive the decisions that are made. Within educational environments, individuals rarely act alone. Although not all educators wield equal power, educators rely on collaborative teams to justify and further the decisions that do get made.

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CHAPTER 1: INTRODUCTION

Background

The No Child Left Behind Act (2002) fostered in a new era of accountability and measures for school improvement directed from the federal level. States and school districts were given increased flexibility to spend money on teacher professional development and additional programs and initiatives to close achievements gaps based on standards-based assessments. In return, specific and measurable standards for student achievement were set, and schools were held accountable for results. NCLB significantly increased the requirements for states, school districts, and individual schools to collect, report, and analyze data as they incrementally demonstrate achievement and improvement in four key areas: accountability and testing, use of federal resources, school choice, and quality teachers/quality teaching.

The mandate for annual progress and yearly assessment of student progress through disaggregated data, emphasizing examination of all subgroups of a population, has changed the way data are collected and decisions are made at the school level (Cross, 2004). As a result, school-level decision making has received renewed focus and importance. Yet, school-based decision making has been criticized as capricious, unfocused, and lacking sustainability (Conley, 1991; Murphy, 1988; Smylie, 1992). School leaders are increasingly pressured to render decisions and implement practices using information and policy handed down and interpreted from federal, state, and district levels (Cranston et al., 2003; Mills, R, 2006; Starratt, 2009). The focus of school decision making in recent years has been on immediate results and marked improvement of student performance as measured through end-of-course or year-end standardized testing. When improvement is not immediate school leaders often change existing

practices to demonstrate that attention has been given to the problem. This can result in a cycle of temporary adjustments and change is likely fostered that may or may not lead to sustainable student academic growth.

Schools are complex organizations that are not comprised of like-minded individuals who are able to gather definitive, complete information and then render interpretations of that information in universally agreed upon meanings that result in clear and rational solutions to issues. School members are not equally equipped with knowledge, power, or skill. They also do not equally gather and make meaning of information. Each school member serves multiple roles in multiple groups and utilizes communication, information, skill, and power in various ways to make decisions depending on given roles and given situations. The complexity of the school often leads the principal or other leaders to form decision-making groups that are skillful in seeking advice, processing information, and making decisions that are at times authoritative and at other times conciliatory.

One decision making strategy that is applicable for all school-based decisions does not exist. The school is a complex organization that requires its leaders to make decisions using methods that range from the unilateral to the consultive. The school exists as an organization that is interdependent with other organizational elements in society (Mumby, 1996). Part of the complexity is determining how to make a decision and when to share decision making. Vroom and Jago (1988) suggested that shared decision making should be utilized on a contingency basis when groups improve the quality of the decision (such as to compile and decide on best practices to implement instructional objectives). Hoy, Tarter, and Hoy (2006) argued that the more groups are successful at problem-solving and achieving meeting goals, the more efficient the group becomes, hence successful group work begets success. At other times a consultative decision

making strategy should be used such as when stakeholder buy-in is desired for school-wide decisions that need to be made to address issue and there is sufficient time to solicit input. In this model, group decision making can be used as an initial step to advise the principal, who then makes an autocratic decision. In other instances, administrators make school-wide decisions unilaterally (Hoy and Tarter, 2008). Unilateral decisions are typically made when time constraints prohibit input from stakeholders or when higher powers direct administrators to implement a policy or procedure. Another instance would be decisions made in response to health or safety concerns. Increasingly, schools are engaging in group decision-making. This study focused on school-based problem solving in the context of the variety and large scope of information affecting schools that tends to be better addressed through group collaboration, whether that collaboration leads to a unanimous, consensus, or majority decision.

In addition to the specific group decision making process, groups must grapple with other factors such as knowledge-processing and decision inputs from the environment. Managing the complexity, uncertainty, ambiguity and equivocality of knowledge attainment is key for decision-making groups (Zack, 1998). Schools are not monolithic entities where organizational and personal goals move toward a target in a unified, linear way. Four knowledge-processing terms each pose a challenge to an organization such as a school and require particular processing capabilities (Zack, 1998). *Complexity i*s when many situational elements and relationships exist in a way that they cannot be coordinated or considered simultaneously. Complex situations are not necessarily vague or unpredictable. Tasks, such as coordinating staff development, or problems, such as improving the implementation of an instructional strategy, or the school organization itself, may be clearly defined and predictable, but the procedural intricacy or the variety of relationships involved in the decision are too large to easily process (Campbell, 1988;

Zack, 1998). *Uncertainty* is defined by a lack of information about the task, goal, or situation and some lack of confidence in the consequences when the predictability of other activities upon which a task is dependent does not exist (Galbraith, 1973; Zack, 1998). In schools, uncertainty is usually present through the distribution of information among stakeholders, emerging policies, and evolving technologies as part of the process of preparing for future situations (Zack, 1998). *Ambiguity* is when an individual or group lacks the ability to understand or interpret some action or information (Machlup, 1980; Weick, 1969). Schools, through the work of individual members, may represent ambiguity when attempting to implement a new mandate, such as reorganizing a school into grade-level clusters as part of creating small learning communities. *Equivocality* exists when multiple meanings or interpretations exist for the same thing (Machlup, 1980; Weick, 1969, Zack, 1998). As staff members in schools or school districts attempt to share best practices, the ability to decide on the best approach to implement the practices may be hampered by the multiple interpretations about how something should be done.

The inputs decision-makers rely on are complex and varied. In addition to managing different types of knowledge processing, decision group members must manage different inputs from the environment. Decision groups rely on micro, meso, and macro data. After decision-group members have recognized and defined an issue at the micro-level represented by the school members (individuals and individuals serving as part of teams) and components within the school such as grades and subjects, they theoretically turn to both micro, meso (parent, community, and district), and macro (state and federal) sources to gather information and involve those impacted by potential solutions. Individuals engaged collectively with the micro, meso, and macro influences in the educational environment must be able to identify those influences and gain knowledge from the information derived from them. Decision-group members must

also be able to weigh the importance of the influence, prioritize responses to the various influences, and make decisions that address the specific needs of the school (bottom-up), while adhering to policy mandates from the district, state, and federal influences (top-down).

Literature to date recognizes the micro, meso, and macro influences on school decision-making group members, although empirical studies tend to not define the three levels and account for the interdependence among them as well as theory-driven literature does (Marks & Nance, 2007). For the purpose of this study, the educational environment is defined using the three levels appropriated from the field of sociology. The micro-level is the people within the school and the school organizational structures which guide individual behavior and actions. The meso-level consists of the programs, policies, and procedures guiding school operational standards as determined by school and district recommendations and mandates. It also includes the parents, and the local community. The macro-level is the state, federal, and global influences on the school that do not necessarily involve direct implementation by the school members. These influences are typically captured, interpreted, and filtered to schools through the district (Ball, 1987; Blasé, 1991; Calhoun, Rojek, Turner, 2005). Recognizing that the levels are not mutually exclusive, some distinctions can be identified. The micro-level of the school is often intimate and is the level people often identify with first. It deals with the daily interactions and actions of people. The focus is more on how people think than on behavior (Blasé, 1991; Calhoun et al., 2005). In large societies, smaller micro-levels within a micro-level can be identified. In a school setting instructional staff members are associated with the building. Within the school each staff member exists at various levels. Teachers can be identified by grade-level and content. They also might exist as coaches and extracurricular sponsors. Administrators can be identified by the grades or departments they supervise.

The meso-level is the middle ground that consists of groupings of neighborhoods or communities rather than entire cities (Calhoun et al., 2005). The education meso-level contains the school and district controls, which includes the superintendent, superintendent's cabinet and the school board, who create and guide policies such as those related to hiring and firing employees, approving curriculum and textbooks, creating discipline policies, setting school schedules, and allocating funds. As a child's legal representative, a parent serves as the main advocate for a child at this level.

The macro-level is the largest of society groupings. There exist groupings within the macro, such as the economy, religion, and government structure. Together they form boundaries that define the macro-level (Calhoun et al., 2005). The state, as the main funding body for schools, creates the accountability measures for student proficiency, determines accreditation, and sets professional licensing standards among other roles. The federal government sets national policy about acceptable student performance and creates laws governing student rights. Rahn (1995) also included special interest groups (commissions and professional organizations) and corporate entities in the macro and meso level.

For school decision-group members at all levels, the decision-making process is complicated by the organizational structure of the school. High schools have the additional task to transition students out of K-12 schooling to college or to employment (Bowers, 2008; Carolan, 2008; Christie, 2008; Hess, 2008; Martinson, 2008). Marks and Nance reported that meso and macro influences are mainly shown to shape priorities of group members related to reporting and documentation, which is usually driven by the district office through directives to the schools (2007). In contrast, the micro level is related to organizing, staffing, directing, budgeting, and coordinating (Lam, 1985; Tam, 1994). These studies, as well as virtually all research concerning

the impact of environment on school decision making, tend to be behavioral studies about how perception guides actions.

There exists little research which seeks to understand the various factors in the micro, meso, and macro sectors of the educational environment and how those factors influence shared decision-making as a cognitive process. How decision group members capture and make sense of information in a cyclical or iterative way is part of the focus of this current investigation. Considering the influences from the micro, meso, and macro aspects of the educational environment particularly under the No Child Left Behind can help to understand how to integrate micro, meso, and macro needs into longer decision making cycles that lead to real change.

In a decision making model that considers environmental influences, the micro needs of the school members either work in harmony or in conflict with meso and macro policy and support. Decisions at the school address directly or indirectly, district, parental, state, and federal interests. Pfeffer and Salancik (1978) provided seminal work that explained external control on organizations (usually at the meso and macro levels). The basic premise of their work is that organizations at all levels struggle to survive and must acquire resources from the environment, which is composed of other organizations. The environment, however, is unstable and undependable (Ball, 1987; Blasé, 1991; Pfeffer & Salancik, 1978 & Zack 1998).

Organizational control is more than using resources through processes within the organization. First, resources must be acquired, which requires an exchange and often a negotiation with the environment. Negotiation is concerned with organizational links. The links exist through information about other parts of the organization and about partnerships, through channels of communication, and through commitments of support (Pfeffer & Salancik, 1978). Among the levels of an organization, interdependence and dependence develops. The factors that

determine dependence of the micro on the meso and macro are the amount of cross-level discretion over the allocation of resources, the way resources are concentrated through suppliers, and the importance of the resources (Pfeffer & Salancik, 1978).

Making decisions requires making sense of the environment by recognizing the various influences, understanding the information the environmental influences deliver, and generating new ideas and skills to manage the requirements from the whole environment. Yet school-based decision group members typically receive little guidance to formally understand the various ways knowledge is created (Dixon, 2000; Newton & Sackney, 2005).

Statement of the Problem

Decision Processes

What is lacking in traditional decision-making models is that individuals do not come into the group as equal members in terms of knowledge attainment, power, or sense making ability about the environment within which the group acts. Further, individuals often do not even have a clear understanding of the environment from which to base decisions and develop strategies that will lead to long-term improvement. Mumby (1996) described the organizational environment as not easily discernable from other aspects of society. He argued for the recognition of an interdependent relationship among organizational elements contextualized as cultural values, degree of conflict or "turbulence" and the level of industrialization to name a few. Mumby further argued that society, culture, organizations, and communication are bounded and exert reciprocal influence. The problem with not recognizing the influences that the micro, meso, and macro levels have on one another by examining one or more of them in isolation is that it limits the understanding about the motivations that drive actions of the players within those different environments. Absent an understanding of the motivations behind the various

influences, including policies and programs, school-based decision makers can make decisions that do not address root issues. Again, this can lead to a cycle of temporary adjustments and change.

The classical model of decision making assumes an optimizing strategy of defined clear goals, complete information, and the cognitive ability and capacity to analyze a problem (Hoy and Tarter, 2008). Yet this does not describe the complex environment of a school or many organizations situated in a complex web of micro, meso, and macro policy and influences. The reality of school organization suggests developing alternatives, more "realistic" models of decision making. Simon's (1957) strategy of satisficing is one such option. Through satisficing, solutions that are satisfactory (good enough) are implemented. Under the satisficing strategy, decision makers compare the real to the ideal. What is desired and what they will settle for is often negotiated. Often new information becomes available and the problem is redefined in a double-loop learning process where the outcomes and expectations are adjusted as information is cultivated (Argyris, 1976)). School-based decision makers must deal with receiving and sending information when the information and the environment as a whole is complex, ambiguous, equivocal, and uncertain (Hoy and Tarter, 2008; Mintzberg, 1983; Thompson, 1967; Zack, 1998).

Further, often school-based leaders attempt to make decisions without having access to all of the information needed to make the most effective decisions possible. Simon (1979) explained this through bounded rationality. Decision makers optimize their computational abilities and knowledge, which is naturally limited and incomplete. Optimal choice is possible even during uncertainty and with gaps in information. The Garbage Can Model developed by Cohen, March, and Olsen (1972) to address inter-department communication problems at

universities described this dilemma as organized anarchy characterized by problematic preferences, unclear technologies, and fluid participation. The "organization operates on the basis of a variety of inconsistent and ill-defined preferences" (Cohen, March, & Olsen, 1972, p. 1). Unclear technology referred to situations where an organization can survive and produce but whose members do not understand the processes. Trial and error as the method for organizational learning is the norm. Fluid participation referred to the various amount of time and effort members devoted to different roles within the organization (Cohen, March, & Olsen, 1972). Often, decisions made at the school level about school practice are made upon immediate recognition of a dilemma within time constraints based on who is available and who can implement the solution quickly.

School members often serve on multiple groups, both vertical and horizontal, and their roles within each group may vary. Theoretically, school decision groups are seen as monolithic bodies, collectively moving toward a decision target, which represent collect knowledge (Hoy and Tarter, 2008). Theory acknowledges that individuals come together to form groups. Individuals are viewed as parts of a whole (Cohen, March, & Olsen, 1972). Yet, in reality the individual often transcends the group not only with his/her own morality, experience, and knowledge, but also with cross-group membership.

Understanding Contextual Factors

Educational contextual factors are the people, ideas, policies, procedures, programs, limitation, and opportunities that influence behaviors and actions of organizational members (Griffith, 200; Hoover-Dempsey et al., 2005; Mintzberg, 1975). These factors themselves often compete for influence. School decision makers may have difficulty negotiating among the factors impacting decisions. The meso and macro influences need to be considered, but there is

often not a clear communication mechanism to get information to school-based decision groups. As described in business settings, decisions at schools are made about immediate concerns when information is limited without considering other factors as well as prior decisions. The result is fragmented decision making that may then assist in propagating the complexity, ambiguity, equivocality, and uncertainty that fed the problem to begin with (Zack, 1998). If members in collaborative groups do not operate as effectively as possible, it may be due to their inability to negotiate contextual influences. With limited knowledge, poor decisions may be made that can lead to costly or even detrimental outcomes.

The literature on collaborative decision-making is primarily qualitative, utilizing case study methodology as the main data collection vehicle (Beck & Murphy, 1998; Yanitski, 1997). The literature is mainly concerned with examining how decision-makers negotiate the decision-making process (Griffith, 2001), rather than how they negotiate the *context*: the meso and macro-level mandates and micro-level pressures. Research exists to help identify the attributes school decision-groups rely on to make decisions (Hoover-Dempsey et al., 2005), but little exists to suggest *how* decision makers factor the influences from micro, meso, and macro environments, gain knowledge from those influences, and then make decisions. Essentially, the literature assumes the environment is adequately addressed through the decision making process.

The literature on school-based decision making is overly simplistic. Most recent studies (from the 1990s through 2008) about school decision making focus on site-based decision making, which attempts to show connections among layers of the environment but often separates and isolates the micro, meso, and macro aspects (Hall, 1987). In addition, it overly emphasizes the group as a single identity, rather than considering the group as a complex meeting of individuals with competing interests, goals, and levels of knowledge. It is in this

environment that individuals -- as members of groups – must make decisions. Usually, an internal focus is used to examine the decision-making process. Meso and macro studies tend to focus on school districts' attempts to implement federal mandates. Thornton and Perreault (2002) described how studies of the meso level focus on outcome-based measures that narrowly examine school actions that directly relate to standardized test results, for example. Micro studies, such as Gonzalez's (2005), tend to focus on decision making to influence school practices such as professional development, but they do not necessarily frame those issues within the full range of school concerns.

Another limitation of the current literature is the treatment of the micro, mesa, and macro factors. When studies acknowledge an environment complete with micro, meso, and macro factors, an assumption of equality and balance of influence and input exists (Mulford et al., 2001)**.** Studies group micro, meso, and macro factors into a collective body of input, where it is assumed that information (usually in the form of policy) is sent to schools in an evenly distributed manner. The assumption is usually based on the researchers' lack of description about the nature of knowledge or the flow of information among environmental sources. The researchers assume that decision makers have the skill, ability, and time to scan the environment and select the appropriate micro, meso, and macro factors necessary and relevant to recognized dilemmas (Drummond & Stipek, 2004). Bandura (1997) addressed this limitation through his work on self-efficacy. That is, the dynamic interplay of personal, behavioral, and environmental influences affect how people interpret the results of their own behavior and alters their environments and alters subsequent behavior.

In general, organizational decision-making literature focuses on decision making processes of the group, marginalizing or ignoring how individual decision-makers take into

consideration environmental influences (Hall, 1987; Lam & Punch, 2001; Tam, 1994). Few decision making models have the complexity needed to address individual decision makers in the context of their participation in a collaborative group. Further, many decision making studies inadequately engage the complexity of the interactions between the micro, meso, and macro environments and their influence on individuals within groups. Without knowledge of the environment and its influence on decision makers and decision making processes to handle the environment, individual practitioners, who participate on decision groups (often simultaneously), do not learn how to negotiate the environmental context to render effective, sustainable solutions to school dilemmas.

Purpose

The purpose of this study was to explore how individual decision-makers make meaning through their membership in collaborative groups in a school given the influence of the multi-layered educational environment (micro, meso, and macro). Following the assumption that collaborative decision-making is the predominant model in schools, this study intended to increase the understanding of how the varied environmental factors exert influence on school decision-group *members* and to provide an examination of the school as a complex organization of decision-makers requiring the negotiation among factors to capture, create, and utilize knowledge.

School decision-makers are increasingly influenced to seek direction primarily from the meso and macro levels in order to align internal decisions with accountability requirements. For example, NCLB in 2002 required school leaders to prepare teachers to teach from standards and students to master standards developed at the state level, based on federal yearly progress standards (Hoff, 2006). Funding from states and districts is increasingly tied to outcomes

measured through empirical data provided about school performance (Thornton & Perreault, 2002). According to Meier (2006), decision-group members are required to make decisions about certain aspects of professional development, student achievement, and resource allocation as part of a complex decision chain. They are tasked with the dispersal of financial assets, prioritizing educational initiatives, scheduling students, allocation of courses among the teaching staff, data reporting, building security measures, and building community involvement. An expectation exists for decision-group members to use resources made available to them to collect and analyze data and then make choices about developing and implementing practices and programs that factor into increased student achievement. At the same time, other decision makers and stakeholders exert influence concerning these areas that might eliminate or create obstacles during the mutable and complex decision process. For example, in schools where multiple opportunities exist for staff to provide interventions for struggling students, decisions need to be made to prioritize which intervention and in which content areas staff and students will allocate time and other resources. Hence, group members must eliminate and discourage practices and programs that draw away from student success (Meier, 2006).

For decision-makers to make sapient decisions alone or as part of a group, they must engage in decision making in order to create "coherence and significance to their experience in light of what" the individual knows (Mezirow, 1991, p.10). In the complex environment of school administration, attention is given to what data groups utilize to make decisions, but very little attention is given to how decision groups capture, weigh, and create knowledge from inputs that are constantly presented to groups in rapid succession and in changing terms (Mezirow, 2000; Senge, 1994). As Senge (1994) claimed, decision making is most effective and applicable when rendered in light of organizational understanding. Knowing how decisions in one sector of

an organization inform, change, or render obsolete other decisions across the organization are key to decision leadership.

In response to data that suggest school decision-makers are increasingly pressured to render decisions based on information and policy generated from sources at the district, state, or federal levels, this study was conducted to explore what factors school decision group members attend to when problem solving. In addition, how decision-group members balance influences to make decisions was explored.

Research Questions

The following research questions guided this study on school collaborative decision making:

1. How do environmental influences (the people, policies, programs, and procedures) impact the factors individuals consider in a collaborative decision-making group?

1a. Which micro, meso, and macro inputs does a collaborative decision-making group member (school-based teacher and administrative leaders) rely upon during the decision-making process?

1b. How does a collaborative decision-making group member make sense of (operationalize) and utilize micro, meso, and macro aspects of the educational environment?

Statement of Potential Significance

School leaders are faced with decision situations, gather information, and gain new knowledge and competencies to make the decisions necessary to address dilemmas. They face pressures to make the decisions that will lead their students to increased academic achievement, developed civic and social responsibility, and the ability to transition to work or college. While

these have long been the goals of education, the stricter accountability frameworks imposed by No Child Left Behind and the overall greater influence of business and the state and federal governments on education are exerting new pressures on schools from the macro and meso environments. This study will provide one of the first examinations of how school-based decision makers negotiate the context of the micro, meso, and macro environment, both individually and as those environments interact and exert pressure on each other.

This study has the ability to reframe the discussion of collaborative decision making such that the environment is seen as a necessary asset, rather than an inconvenient truth. It is the latter orientation that ultimately inhibits schools from making and sustaining the changes necessary to ensure success of all students. The findings of this study can help educational leaders at all levels reframe their orientation to decision making to ensure communication and articulation among school-based decision makers taking into consideration environmental factors and the understanding that individuals impact decision making in dynamic and various ways even within a seemingly stable collaborative group. Further, the findings from this study can help to inform school-based decision makers about the ways in which they need to initiate communication to get the information they need to make decisions.

In a data-driven decision making environment, it is important to understand the content and context of the decision as much as how to collaborate and work through the decision making process. If the decision-making group member cannot come to a shared understanding of the micro, meso, and macro environment, decisions will often default to the positional leaders, who may have more knowledge of the environment (Hart, 1995). This ultimately undermines the very core of collaborative school-based decision making. Findings from this study can provide guidance to other decision making bodies to help them ultimately make better decisions.

This study can also enhance theory development regarding group decision making by approaching the decision from the aspect of the individual, rather than the group perspective. Previous studies tended to either examine a group dynamics through such bodies as school boards of educations or school-based collaborative teams, or they focused on individual school members such as superintendents, principals, or classroom teachers. This study examined individual group members as dynamic learners who function autonomously within the group setting. The group has an important role, but group decisions are really the decisions. Hence, this study has the potential to expand education decision making models based on the actual configurations of decision groups in schools.

Conceptual/Theoretical Framework

To address the issues of individual decision making situated within multiple collaborative structures as a response to three levels of environmental influence, a decision making model that could adequately support this complexity was needed. Rather than rely on traditional models of decision making that have various strengths and challenges, this study used a model of adult learning adapted as a decision making process that incorporated knowledge attainment, critical reflection, and alternatives seeking (used to address environmental influences). With the focus of this study on individual decision makers, critical reflection theory provided the flexibility and depth to examine various patterns of knowledge attainment and use.

Finding a decision model with the adequate capacity to address the tenets of the purpose of this study was a challenge. Tarter and Hoy (1998) examined six contemporary decision models: the classical model, the administrative model, the incremental model, the mixed-scanning model, the garbage-can model, and the political model. They recommended matching strategies from the models with situational contingencies based on the levels of certainty, clarity, ambiguity, and political ambition. Each of these decision models were found lacking in various ways. In general, the models were unable to reconcile situational flexibility in the search for alternatives, capacity building, and distinguishing an individual's goals from the organization's goals. This stemmed from a disconnect between the decision making process and the environmental influences that interfere with technical decision making skill (Tarter & Hoy, 1998), and a lack of appreciation for the interdependent nature of micro, meso and macro factors.

Mezirow as a decision making model.

Mezirow's Adult Transformational Learning Theory is not considered a traditional

decision-making theory. It is an appropriate foundational model for research that seeks to explore how the individual acquires knowledge, negotiates the environment, and experiences problem-solving in collaborative decision situations. Mezirow (1991) argued that decision making is distorted by any learning resulting from past experiences. Mezirow suggested using critical reflection, which values synthesis over forethought. Tarter and Hoy (1998) criticized other decision models used in education for lacking structures to address reflective thinking. Unlike other decision making models or other strategic planning models, Mezirow (1991) developed a process focused on learning rather than only problem-solving. Engaging the process by recognizing a "disorientating dilemma" suggests articulating an issue not necessarily recognized as typical to the flow of organizational communication and processes. Mezirow's theory also blends the actions of the individual with those of others during the "self-examination," critical assessment," and "recognition of others," phases. The "exploration of new roles" frames the decision makers' abilities to search for alternatives throughout the environment, rather than solely relying on existing structures and resources. In addition, Mezirow advocates experimentation with plans as a strategy to develop knowledge, foster understanding, and build capacity to incorporate developed "perspectives" into the organization. The broad scope and layered approach of Mezirow's theory has the appropriate dimension and structures to study how environmental influences impact the factors individuals consider as part of a collaborative group. Figure 1 depicts the phases of Mezirow's theory with knowledge and decision making factors shown.

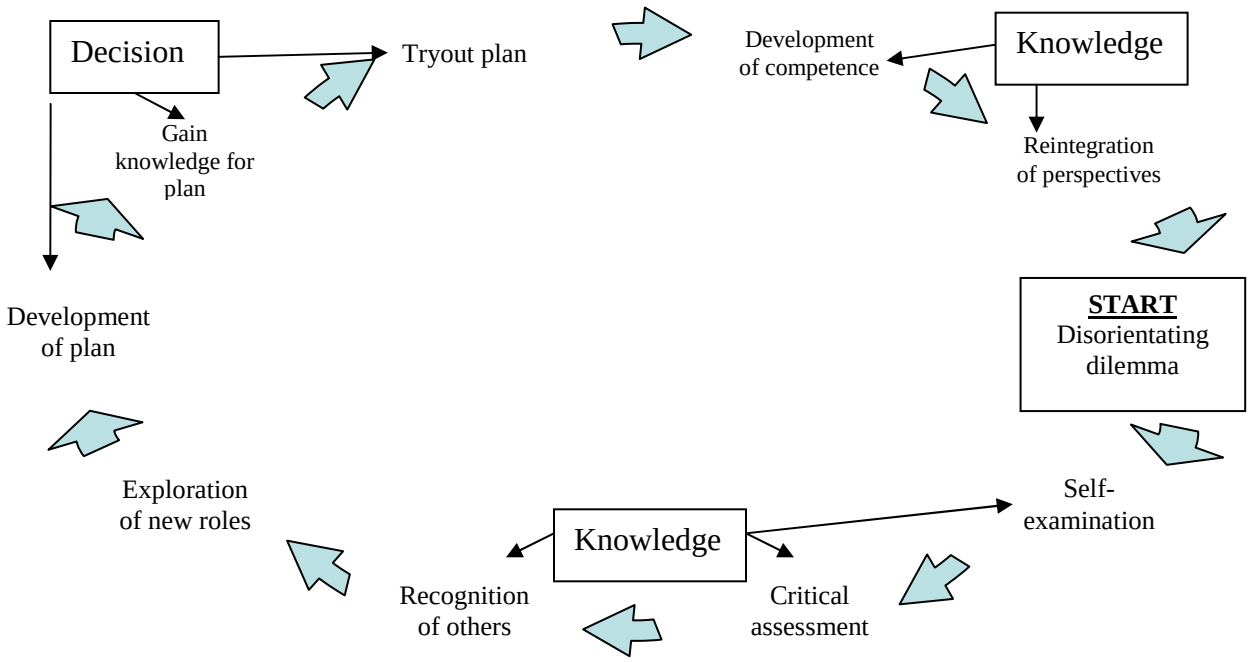

Figure 1: Mezirow's transformation theory (Adapted from Mezirow, 1995)

For purposes of this study, Mezirow's theory is adapted to reflect the individual school member situated within a group. The process begins when a group member experiences a *disorientating dilemma* occurs to necessitate change from current policy or procedure and triggers a cycle of individual learning as part of a group. The extent of the dilemma can be simple or complex and can occur within any context, such as program implementation, instructional adjustments, classroom procedures, budgeting, facility usage, or safety, for example. The dilemma requires some degree of *self-examination* at the individual level. Whether school leaders address the nature of the dilemma at the administrative level or involve members of collaborative teams of staff and parents, the dilemma needs to be defined through a *critical assessment* by each individual to determine what is known about the dilemma. In *recognition of others*, the problem to be addressed can be either assigned to existing school-based decision makers or assigned to a person or group temporarily to address a specific issue. These individuals must then acknowledge and understand the roles of others. Sometimes, school

members must explore the possibility of taking on and *exploring new roles.*

The importance of the dilemma must be identified to determine the priority and timeline of a needed response. The individual engages in this initial exploration to define goals, objectives, tasks, and responsibilities in preparation for the next step. The *development of a plan* is the next stage where decision-making takes priority. The plan looks back at the *gained knowledge* that the individual learner developed since the dilemma was recognized and reflects the decisions made about what to pursue, what to keep, and what to discard. The plan also looks forward to gaining new knowledge that will show a distinct departure from the previous approach to adequately address the necessary changes. The plan is *tried out* then implemented in trials to test the feasibility of the plan and to *develop the new competencies* and knowledge that the learner will be required to have to create change. The implementation of new competencies through change organically feeds into the environment that may lead to responses and inputs in the form of other disorientating dilemmas for the individual learner as a continual cycle of gaining knowledge and making decisions to address requirements for change. Knowledge in the transformational learning cycle comes from all three levels of the environment: micro, meso, and macro. Although adult learning theory may not be grouped with decision making theories, it provides the flexibility to examine decision makers as learners and negotiators of environmental influences as decisions are processed.

Summary of conceptual framework.

In an attempt to integrate psychological, organizational communication, and decision making theory to address the research questions for this study, Mezirow's Transformational Learning Theory was chosen. The theory, adapted into a model process for decision making,

contains the elements needed to address the individual who can operate as an autonomous thinker within multiple collaborative structures.

The model is used to specifically explore adult learners as they work through decision making and transformation. Adults, who are the only participants in this study, have particular perspectives that come from experiences of various depth and intensity. Adult learning is distinctive in its search for meaning in complex, contradictory, and ambiguous realities (Mezirow, 1998). In addition, the model addresses the need for decision makers to challenge assumptions about their own beliefs and develop understanding as they engage in group thinking to avoid “group think.” Mezirow’s Adult Learning Theory provides the vehicle to analyze how the individual absorbs and negotiates environmental influences to develop a capacity to remain an emancipatory thinker serving in multiple roles within and across school groups. More specifically, adult learning theory is a way to examine how individuals disengage from the “tacit assumptions of discursive practices and power relations in order to exert more control over their everyday lives" as emancipatory thinkers (Kincheloe, 2008)

Summary of Methodology

The aim of this investigation was to investigate how individuals operate in school-based groups, using Mezirow’s (1981, 1991, 1996, 1997) theory as an organizing structure for investigation. Three decision groups at a school were identified and followed through the cyclical nature of how the group members identified a problem, captured information, negotiated competing or overlapping interests, and developed alternatives and implemented solutions, which, at times, required modifications or revisions. The group members chosen to be interviewed were the Principal, the Assistant Principal (AP), the Communication Skills Specialist (CSS), the Instructional Skills Specialist (ISS), a Special Education (SPED) teacher,

and a Regular Education Teacher (RET). The school site was chosen based on its reputation as an award-winning collaborative decision making school with standing decision teams that met regularly and directly involved the power base of the school. Multiple observations with the decision groups, document collection, and interviews with members of the groups who serve on lateral and vertical teams were the sources of data. This will further be discussed under the methodology section and in chapter 3.

Hermeneutic phenomenology was the chosen methodology for this study concerning individual decision-making in a collaborative setting in a school. Hermeneutic phenomenology views human existence as a constant state of interpretation (Macann, 1993). Hermeneutic phenomenology seeks to describe how ideal objects can be made known. To explore how decision-group members describe their experiences while engaging the educational environment, making meaning from information, and guiding individual and collaborative decision-making processes, a phenomenological approach offered the advantage of explanation of events in a highly descriptive manner (Creswell, 1998).

Unlike quantitative approaches, qualitative measures report words instead of numbers (Creswell, 1998). As recommended by researchers (Glesne & Peshkin, 1992; Moustakes, 1990), this study did not begin with preconceived hypotheses about the results. Instead, the flexibility to pursue the participants' experiences in an open way took advantage of the discovery nature of qualitative approaches, and, in particular, phenomenology. Phenomenology was the appropriate method to describe the essence or meaning of a *phenomenon* of human experience (Moustakes, 1990).

This study was concerned with describing a collaborative group member's conceptualizations of the world they inhabit to study their point of view rather than study the

objective nature of reality (Creswell, 1998; Gall, Gall, & Borg, 2003; Tuten, 2006). The primary research question was, "how do environmental influences impact the factors individuals consider in a collaborative decision-making group?" Three decision groups consisting of administrators and teachers from one school in one public school district were selected. A Lead Team consisted of school leaders (administrators and teachers) who formalized data collection and assigned tasks to vertical teams. Each decision group was observed multiple times to trace the cyclical nature of Mezirow's transformational learning theory as instructional decisions were made. Participants who served on multiple teams across the vertical organization were interviewed. The individual interview was the most pure phenomenological method used. Direct group observations were guided by the phenomenological protocol to respond to the data and provide a richer description of the decision making phenomenon than interviewing alone would produce.

Delimitations

This study included participants employed with one southeastern school system. The participants were limited to their participation in a collaborative decision group within the school. The school chosen was intended to represent the diversity and demographic that might be found throughout the district in other schools. Whether the school was considered a site-based decision-making school was not a consideration. No distinction was made between the collaborative and consultative aspects of the decision –making process except as drawn out during individual interviews. No private schools or public alternative schools were selected for the study. Furthermore, the investigation was delimited by the decisions that involved a decision making team only. No autocratic decisions were studied. The data was collected during the 2009-

2010 school year. This research study was limited to administrators and teachers employed in one southeastern school system during the 2009-2010 school year.

Limitations

The interviews were semi-structured and relied on the participants understanding the nature of the questions and accurately reporting about their own experiences. Experiences are only reported, not validated, in the phenomenological method. Although the research study tracked group members' knowledge attainment and decision making, it only captured a few months of the process. No discernment of lasting growth can be made. It did not seek to universalize or generalize the findings. The knowledge attainment examined during this study might occur at a different rate or to a different depth if the study was conducted at a different time. Further, while this investigation could capture early stages of the "try out plan" stage of the model, the final stages of the model could not be fully explored as there was only one interview scheduled at the end of the second semester. As such, the final interview was a retrospective of the year.

Conclusion

Decision making in schools in the current era of reform is complex and multi-faceted. Decision making cannot be wholly considered without factoring in the influences of the micro, meso, and macro environmental elements that must be negotiated ((Newton & Sackney, 2005; Stasser, 1999).

Decision making is an inherent part of organizational structures. Since the early 20th century, theorists have defined and categorized the attributes of organizational decision making in attempts to capture the reality of structured processes of organizations that guide behavior and

action (Flyvbjerg, 1999; Mumby, 1988). Each successive wave of organizational and decision theorists have developed layers of explanations and qualifiers that address the inherent complexities and ambiguity of decision processes (Flyvbjerg, 1999; Mumby, 1988; Silinis, Mulford, and Zarins, 1999). A variety of decision making models exist. Classical rational models have been built upon to address the limitations of human reasoning capacity. Subsequent models have added components to address the issues of knowledge/information management (Zack, 1998). The most current models factor in political dynamics, the needs of decision makers to not only manage knowledge but help create it, as well as the importance of negotiating environmental influences to create structures to address organizational dilemmas (Senge, 1994, Tarter & Hoy, 1998)

Given the current educational environment where complexity, uncertainty, ambiguity, and equivocality are factors impacting the transference of information and the development of knowledge during the decision-making process, Mezirow's transformational learning theory (1981), offers the complexity with which to consider the individual as a learner who must gain knowledge and develop decision-making capacity within a dynamic environment. Individuals, as part of collaborative decision-making, recognize a dilemma, attain and create knowledge in the pursuit of solutions.

During the process, information in all of its complexity, uncertainty, ambiguity, and equivocality (competition among information sources) is addressed within the micro, meso, and macro environmental influences. The micro environment is a complex mixture of the people who work within the school who negotiate a variety of factors including strategic planning, parental involvement, professional development, student assessment, budget, and staffing. It is also the cultural dynamic that shapes interpersonal interaction. The meso and macro parts of the

environment consist of representatives and policies from the school district, parents, state, and federal levels. In addition, broader cultural trends, community economic viability, population shifts, and business involvement in financially supporting schools and in shaping policy inform the external realm.

Decision making ultimately consists of a process of negotiation among competing environmental influences and the ability to attain and understand information in a context that makes decisions made in schools appropriate and sustainable (Marks & Nance, 2007). This was the foundation through which the existing literature concerning decision making was examined (Chapter 2), from which the research methodology was developed (Chapter 3) and the subsequent study was undertaken (Chapter 4) and analyzed (Chapter 5).

CHAPTER 2: LITERATURE REVIEW

Overview

As the federal government mandates school accountability, schools embark on reform measures. School administrators and teachers have formed more collaborative decision making processes over time in the unified pursuit of increased student outcomes (Lashway, 2003). Following the assumption that collaborative decision making is the predominant model in schools, this review of literature focused on empirical studies that operationalize the effectiveness of group decision making, the ways the decision group members engaged environmental influences, and the ability of the group members to negotiate environmental context through the attainment and understanding of information as knowledge. The current literature suggests that collaborative groups could operate more effectively in schools (Conley, 1991; Conway & Calzi, 1996; Smylie (1992). The focus of studies trend toward the *use* of decision making process and not *how* the process is used to negotiate context. In addition, research literature is limited in three key areas: how the environment is negotiated to attain and make sense of information, how individuals with varying levels of capacity and knowledge impact decision making through the collaborative group, and how the unique role of the individual retains autonomy in a group setting.

This literature review includes studies published from May 2006 to November 2010 in which decision-making was a key term. Shared decision making, site-based decision making, strategic decision making, and group decision making were terms also used to find applicable studies. Empirical research examining social theory and management literature was searched. Parallel with the search about collaborative decision making was a search for environmental influences on schools. Key terms included micro, meso, macro, internal, external, school

environment, context, and factors. Knowledge attainment and meaning making was further searched to add depth to the research about decision making. From August 2006 to September 2009, Dissertation Abstracts International (DAI), the Education Research Information Clearinghouse (ERIC) database, Proquest, The Scholarly Journal Archive (JSTOR) database, psych-lit, ebsco business source premier, reference lists from articles and dissertations, and full-length books were the literature searched. Although empirical studies exist in the literature that examine decision making in non-educational fields, this review of the literature will focus on those at the K-12 educational levels with a few limited exceptions.

Conceptual/Theoretical Framework

A decision making model flexible enough to incorporate multiple theoretical underpinnings within a broad environmental scope was necessary to initially frame this investigation. The model sought encompassed the micro (the people within a site), the meso (the programs, policies and procedures guiding the site), macro factors (influences outside of the site not directly implemented at the site as filtered through meso controls), and knowledge attainment. As Tarter and Hoy (1998) argued, none of the most current decision making models stand alone to accomplish a multi-layered research scope. A non-traditional model that has the dynamism and scope to adequately allow the research questions proposed for this study to be explored was selected. Adult learning theory met the requirement of allowing the individual (alone and in a group) to be examined through a reflective process that addresses multiple environmental inputs and gives weight to knowledge attainment and understanding. Mezirow's learning theory offers a model through which to explore such a dynamic (1981, 1991, 1996, 1997, 2000).

Theories concerning organizational decision making since the 20th century explore the decision making of participants (as an individual and as a group phenomenon) (Bandura, 1997; Janis, 1959; March & Simon, 1958; Martin, 1992; Stohl, 1995; Trujillo, 1992). There exists in various depth attempts to identify and define the environmental factors that decision makers respond to, to understand the complexity of decision processes and the management of information, and create models for problem solving as a way to explain the realities of organizational decision making (Senge, 1994, Tarter & Hoy, 1998, Meier, 2006; Vroom & Jago, 1988; Zack, 1998). In a school setting, vertical and horizontal groups exist that require one person to serve as a lead decision-maker on certain teams and an implementer on others. In addition, unlike in some organizations, the different team members interact daily. The individuals who comprise the teams face decision dilemmas roughly at the same time the teams do.

Mezirow supported Habermas' idea that transformative action requires individuals to construct their own collective learning in order to change their relationship to the social world. Habermas (1981) specified three areas where knowledge is generated: the technical, the practical, and the emancipator. Mezirow translated these into the arena of adult learning using the terms work, interaction, and power (1981). Work involves action based on empirical knowledge. Task-oriented activities such as research and program evaluation are suited for this domain. Interaction involves the seeking of clarification of conditions for communication to address whether actions are outputs from processes internal to the individual or whether internal processes are formed by the individual's interaction with the environment (Mezirow, 1981). For Mezirow, power is filtered through critical literacy for the development of the self to gain autonomy. Power is especially exerted through the "self-assessment" stage as learners become

aware and overcome attitudes preventing them from engaging in personal, professional, and societal change through their work (Mezirow, 1981).

Power is not the instrument for domination; it is the instrument against domination. Individuals are interpreters of knowledge rather than legislators of knowledge. The adult learner uses reflective practice to interpret knowledge. This interpreted knowledge serves as the power base to which engagement in collective practice is possible. From autonomous understanding, the individual can be involved in communicative learning, which "involves at least two people striving to reach an understanding of the meaning of an interpretation" (Mezirow, 1997, p.6). No universally accepted interpretation exists; therefore, contested meaning will continue to exist. The contested meanings are heightened by the complexity, uncertainty, ambiguity, and equivocally through which information is delivered in the environment (Zack, 1998). Mezirow (2000) used the concept of discourse as the process for assessing reasons used in support of competing interpretations through the examination of evidence, arguments, and points of view (1991).

Psychological justification for Mezirow's model.

Jung (1933) attempted to categorize decision making based on whether the external or the internal dominated the data collection needed for decision making. Jung's Theory of Psychological Types (1945) identified two general types of decision-making: the introverted and the extroverted. The extroverted function type uses the standard taken from objective conditions as the criterion for valid judgment (1945). If decisions are made from a preponderance of outward thinking focusing on the concrete, extroverted thinking is evident. The objective sense dominates. The extroverted thinker guides his life with intellectual conclusions oriented by objective data, whether objective facts or generally valid ideas (Jung, 1933). The extroverted

thinker pursues the ideal through polarizing formulas of contradiction; any neutrality is accidental. Modern accountability systems rely on ready access to data, extroverted decision-making, i.e., data-driven decision making has taken precedence.

In contrast to the extroverted thinker, the introverted thinker is guided by the subjective. Decisions are guided by new ideas rather than the perception of new facts. Facts are not collected and presented as the idea, rather the data is used to formulate questions and ponder theories. Facts do not become the judgment; they serve to question how well the data informs the idea. Its goal is to present a reality that even when not supported by the facts become the most suitable, abstract expression of the data (Jung, 1933). It is applicable to this study to consider Jung's introverted and extroverted thinkers as learners who must recognize tacit and explicit inputs and use them to negotiate the environment and shape realities.

There are dangers in both function types of thinking. Extroverted thinking can risk smothering or rendering meaningless the data as empirical evidence builds. Introverted thinking risks coercing facts to shape an ideal image of reality, or it might simply ignore the data all together (Jung, 1933).

By the 1950s, theorists such as March and Simon described rational decision making and the constraints that bound rational thinking. March and Simon (1958) examined the behavior of people in organizations. They synthesized the research about organizational behavior around three assumptions rooted in time. The first assumption is that people are passive instruments of their leaders. March and Simon (1958) classified this as classical thinking that took root in the first 25 years of the 20th century. The next 25 years was dominated by theorists who focused on organizational members' feelings, motives, and goals. The 1950s introduced a discussion of the limits of rationality by examining people as adaptive, reasoning thinkers who make decisions and

problem solve bounded by limited information, cognitive abilities, and time (1958). This bounded rationality was an alternative to rational decision making that serves as the basis for mathematical modeling for optimizing choice. Rationality was concerned with only extrinsic factors, while bounded rationality considered the individual's cognition, morals, ethics, and sensibility in addition to external factors. The most significant difference between the rational model and the bounded model was in the purpose. While the rational model sought the optimal solution to a decision situation, the bounded model sought to find the best solution, which may not be the most cost-effective or efficient as an optimal solution would be. The bounded rational approach paved the way to address internal conflicts within the individual and the organization.

Janis (1959) analyzed the "psychological causes and consequences of decisional conflicts" (p. 6). He made it a point to acknowledge that his theoretical construct about decision making was based on a "leader acting on behalf of a group or organization, as well as when it is a purely private act" (p. 6). The conflict, therefore, referred to opposing tendencies within an individual "which interfere with the formulation, acceptance, or execution of a decision" (p. 7). All decisions are assumed to seek to satisfy the attainment of objectives or events (instrumental effects) and avoid undesired objectives or events. The consideration of instrumental effects leads to anticipation of utilitarian gains or losses. The focus on gain and loss play a major role in deciding a course of action (1959). Mezirow (1981, 1991, 1996, 1997) would advocate critical self-reflection for a learner to challenge assumptions, which might be hidden and unacknowledged, to examine the roots of gain and loss as a way to seek meaning and determine what, if anything is gained or lost. He specifically addressed adult learners as they work through decision making. Adults have particular perspectives that come from experiences of various depth and intensity. Adult learning is distinctive in its search for meaning in complex,

contradictory, and ambiguous realities. This insight can help to clarify decision alternatives.

Organizational communication.

Garmon and Wellington (1999) stated that professional communication is at the heart of how work gets accomplished in organizations. In order to understand how school leaders negotiate the educational environment through collaborative decision making, it is helpful to understand the nature of communication in organizations.

The assumption that must be discounted is one of communication existing in a linear fashion, where the message sent is the message received (Axley, 1984). Weick (1979) referred to organizations by the term "organizing" and described organizing as an ambiguous and uncertain process that is constantly made and remade. Organizational stability and rationality is only evident when examined retrospectively (Weick, 1979, 1995). Communication is the substance of organizing as members construct a complex system of meanings (Mumby, 1996). The relationship between communication and organization can be framed by a discussion of organizational culture.

Martin (1985) argued that with improving employee relationships and commitment as a focus, organizational communication scholars analyze organizations as cultures. Mumby (1996) countered the assumption that culture is a monolithic structure that can be transferred or changed to meet organizational needs. He argued that organizational life is a vast and complex network of communicative and cultural practices that shape organizational life. Complex connections among organizing, culture, and social processes constitute organizational communication culture. Mumby described a study by Trujillo (1992), who used multiple interpretive frames to describe cultures at a baseball park. Rather than being a self-contained, united entity with specific goals, the spectators, workers, owners, and players constructed the realities of baseball complete with

multiple and contradictory communicative structures. This approach treats the organization as a product of ongoing communication practices.

In this conception of communication, focus is on how organizing processes are influenced by connections individuals demonstrated beyond organizational boundaries and how relationships constrain and facilitate organizational experience (Mumby, 1996; Stohl, 1995). Connections among group members are enacted within social and temporal structures that resemble networks of connected webs rather than stable, delineated subcultures (Martin, 1992; Mumby, 1996).

Organizational factors justifying Mezirow's model.

By the 1970s, rational decision theory was expanded to account for the randomness, complexity, and uncertainty that impact decision making. Cohen, March, and Olsen (1972) described the mix of people and information that are dropped on organizations as if in a garbage can resulting in a type of decision anarchy that is mutable with the influx and removal of organizational members. Pfeffer and Salancik (1974) captured organizational complexity and uncertainty as it is filtered through the use of power as a political act of allocating resources through decision making. Mintzburg, Raisinghani, and Theoret (1976) found that decision-making was unstructured; however, structure can be determined through three phases: identification, where the problem is defined and the objective is clarified; development, where alternatives and consequences for each are articulated; and selection, where the preferred alternatives are chosen in accordance with established values or beliefs.

Since the 1980s, decision-making theorists have examined power as wielded by organizational units and subunits (individuals and groups) through the creation and attainment of knowledge expressed through structures of communication. Mumby (1988) argued that

organizational decision making resides within “structures of domination as they are manifested in human communication” (p. 167). He examined relationships among language, communication, meaning, interpretation, and organizational culture to show how power-as-domination impacts the production and how sense making and meaning making become structured in organizations. Mumby was critical of theories of organizing processes that were conservative and failed to explain the development of consensual meanings through communication. Groups with the most power will be able to harness communication to “integrate their sectional interests to the very structuring of organizations” (67). Flyvbjerg (1999) continued this argument by stating that power is superior to rationality in organizational politics. Through the examination of the failed Aalborg Project (an effort to minimize the harmful effects of automobiles in the city of Aalborg), Flyvbjerg chronicled the initial unity formed among the technical department. When the mayor and other politicians got involved “analysis, instead of acting as a foundation for intelligent policymaking, becomes a manipulated instrument of politics” (p, 35). Other bureaucrats entered the discussion, alternatives were debated, and modifications were made. Each change to one subpart of the plan altered related parts. The project never succeeded. The problem was not as complex as some organizations face and rationality, if it prevailed, may have lead to a successful implementation of the plan. According to Flyvbjerg (1998), invariably politics will dominate.

Decision-making requires decision makers to use sophisticated strategies that incorporate an understanding of environmental influences as well as the intricacies of making meaning from those influences to render effective decisions, usually as part of a collective decision-making body (Newton & Sackney, 2005; Stasser, 1999). Decision making is the process of choosing between alternatives to solve a given problem (Drucker, 1966; Reitz, 1989). Decision making is

also making choices to effect environmental change (Barnard, 1938). Literature about business strategic decision-making refers to *environmental determinism*, where decisions are expressed as adaptations to opportunities, threats, and constraints (Aldrich, 1979; Hannan and Freeman, 1977). The argument is that the environment determines who will survive in a competitive environment and decision outputs are more important than internal decision-making processes to explain an organization's behavior. When dealing with complex situations, leaders limit the scope of decisions to seek acceptable alternatives rather than ideal solutions, attempting to approach rationality (Simon, 1957).

When decisions involve groups of people, reaching consensus is often influenced by leadership behaviors, individual status differences, group pressures, inter-group competition, and group size (Reitz, 1989). The attainment and exploration of knowledge in group situations tends to be framed by what is known, termed expertise (Tennant, 1991) and practical knowledge (Wagner & Sternberg, 1985). When faced with alternative choices to consider, group members are influenced by the framing of information (usually in the form of risk and gain) and the social status of members as each exists in the external environment (Bradley, 1980). When the decisions involve uncertainty, group polarization toward either cautious or risky implementation usually occurs, which works to constrain the decision options (Myers & Lamm, 1976).

Vroom and Jago (1988) identified eleven environmental factors related to the decision-making process and group participation. The factors were (1) the importance of the decision, (2) the leader's knowledge of relevant information,(3) the extent of information held by group members, (4) time constraints, (5) the amount of meeting time, (6) decision deadlines, (7) how structured the problem is, (8) the importance of member acceptance of decisions, (9) the importance of member development through participation, (10) the degree of shared purpose,

and (11) the amount of conflict the process may generate within the group. Decision importance is a key factor. Dean and Sharfman (1993) suggested that the *magnitude of impact* of a decision is one of the strongest variables of decision-making behavior.

In education, group decision making is most often evident at the school level. Wohlstetter et. al. (1997) argued that site-based decision making must exist within organizational conditions that support interaction among stakeholders. The main conditions needed are the power of the group to make decisions as part of a connection to the external environment, decision-making knowledge and skills, and access to the information necessary to make effective decisions. While researchers and scholars promote the importance of collaborative decision-making (David, 1995; Klecker, 2000), principals control the decision-making process by initiating the process, developing members, and guiding the implementations (Bennis, 1989, Lunenburg & Ornstein, 2000, Tuten, 2006).

Understanding the level of involvement of others is also key to defining the kinds of decisions principals make. Vroom and Yetton (1973) categorized decisions based on how they arise. Individual decisions are made by a representative of a group (a principal for teachers, for example). Consultative decisions are still made by an individual but only after seeking input from a group. Group decisions are ideally made from group consensus, but when majority rules group decision is achieved. In a school, the individual is responsible for working among different groups and transferring knowledge. Mezirow (1997) accounts for the learning of the individual in group setting. In effect, the individual faces transformative learning processes the way a group does.

Consistent with models of collaborative leadership, Mezirow (1997) theorized through his transformation theory of adult learning that a productive worker must “think as an

autonomous agent in a collaborative context rather than to uncritically act on received ideas and judgments of others" (p. 8). Key competencies of autonomous thinking that effective problem solvers bring to collaborative groups are the ability to acquire and use information, identifying resources, interpreting information, working with others, and understanding complex interrelationships (p. 8). Mezirow saw decision making as a process that was "understood as a continuous effort to negotiate contested meanings" (2000, p.3). Drawing from the ideas about communicative learning from Habermas (1981), Mezirow explained that problem solving and process of learning may be used as an instrumental tool toward what Habermas termed "emancipation" (1997). Emancipation involves the development of self knowledge used to expose power dynamics in the environment. The new found insight allows scrutiny of dominating force aimed at removing false consciousness in order to achieve freedom from social constraints (Outhwaite, 1994). A major purpose of emancipation is to eliminate ideology fostered by a false consciousness exhibited through false understanding or inconsistency of a group that could prevent a critique of oppressive daily routines remaining unquestioned because they are unnoticed (Freire & Shor, 1987). False understanding and inconsistency are two factors among others that create school-based dilemmas that individuals acting through groups encounter.

In summary, the 1970s brought the dynamics of the organization to the forefront of organizational decision making. The way knowledge was attained and how that knowledge looked, such as how complex, or uncertain, ambiguous, or random it was described in terms of communication and power within organizations and their subunits. In the 1980s, this idea of knowledge as a foundation for communication as a vehicle for wielding power was examined to analyze organizational effectiveness. Theorists in the 1990s incorporated previous understanding of organizational culture to situate the organization within larger environments to focus on how

organizations effect change. Internal processes were linked to external productivity and competitiveness. With the new century, the individual has emerged as the key to effective organizational decision making processes. The individual as part of a group is just as complex and dynamic as the organization. This research and future research will take the next logical step to further examine the individual as a learner as well as a decision maker, who must make meaning from information, negotiate the environment, and communicate as an emancipator thinker and part of an organization. Mezirow's adult learning theory serves as a model to address the capacity building of the individual within the group.

School organizational learning during dilemmas.

Most of the literature in primary and secondary education about decision making during uncertain times, especially when responding to a dilemma, is concerned with ethical decision making (Cranston et al., 2003; Mills, R, 2006; Starratt, 2009). One study of organizational learning in schools was conducted by Silinis, Mulford, and Zarins (1999). The researchers surveyed over 2,500 teachers and principals and over 3,500 secondary students across 50 schools in Australia to determine which factors influenced organizational learning. Distributed leadership among administrators and teachers, especially in collaborative situations, was shown to increase the perception of the school as a learning organization. Although the results did not find a significant impact on student outcomes, they did support distributed leadership as a model for schools to make more effective decisions.

The results were limited to a random, stratified sample of secondary schools in Australia. The fact that using a distributive model to involve a high number of faculty in collaborative decision making did not significantly improve student outcomes suggested that other environmental factors were possibly suppressing student outcomes. As a learning organization,

the decision groups in the school were faced with recognizing a dilemma and the need to capture information and create new knowledge that would then aid in the process of decision making. Simply engaging a decision making process alone was not enough to achieve desired results. Silinis, Mulford, and Zarins (1999) touched on the surface of distributed leadership. A more in depth study would use learning theory to track the knowledge attainment of individuals within sub-groups and compare them across groups. Comparing effective group capacity building to student performance could possibly help explain the gap between increased collaborative structures but lack of significant student achievement.

Another study of decision making during a dilemma was conducted by Salancik and Pfeffer (1978). They used 80 undergraduate business students who thought they were signing up for a course about decision-making and personality. The subjects were told that they would have input into the hiring decision of a graduate teaching assistant for the following year. The researchers sought to examine the choice of socially similar others in hiring through the lens of uncertainty and secrecy. Uncertainty was defined as a situation of conflicting criteria, which can be resolved by judging the relative importance of the conflicting information. Secrecy was defined as whether the decision maker is publicly identified with the decision, and whether the information used to make the decision is available to others. The subjects were separated into groups and presented with a folder for each of three candidates. For the uncertainty manipulation, the ratings for each candidate in the areas of grade point average, grades in management courses, and faculty recommendations, were inconsistent across the dimensions and all three candidates were equally rated overall. The certain decision set had consistent ratings so that one candidate was relatively high across the dimensions. To construct social similarity manipulation, the subjects' personal data was used to create profiles for the candidates to be

either similar or different from the subjects. The candidates' personal data sheets were assigned randomly across the uncertain and certain groups. The study also included a public identification, where the subjects were requested to sign their name to their recommendation for hire. Another recommendation form was presented as one that usually only the chairman of the hiring committee signed. A released-information condition was set up, where a report of the decision including data or information that guided the recommendation for hire was released. The not-released condition informed the subjects that a recommendation was presented without supporting evidence.

Salancik and Pfeffer (1978) found support for the theory that in uncertain conditions a uniform distribution of choice should emerge. The subjects did not reach consensus as to which candidate would be recommended for hire. The certain condition showed Candidate 1 with 9 of the 15 recommendations for hire. Uncertainty produced more difficult choices. When faced with uncertainty and no clear normative distribution of preference, the subjects chose the candidate most similar to them over 61% of the time. When conditions were certain, the similar choice was made 31% of the time. In addition, subjects selected candidates who were socially similar almost 76% of the time when the information was not released. When told the information would be released they choose the similar candidate 50% of the time. Overall, the subjects tended to make socially similar choices when the alternatives were complex and the information condition involved secrecy. Interestingly, subjects favored the more familiar choice even when self-interest was not an issue. The subjects were not going to benefit from their choice. The implications for decision groups when they have to manage knowledge would be whether they can avoid relying only on the familiar processes and information sources. This is part of the learning and negotiation that occurs in Mezirow's learning theory.

Mezirow's Model and Decision Making in Schools

There are a variety of decision-making models, but the foundational model of this study is Mezirow's transformational learning theory because it acknowledges the individual as a vital part of shared decision making of school decision groups, incorporating the work of Jung, and the influence of the micro-level influences (such as strategic planning, staffing, and professional development), the meso-level influences of the district mandated school policies and parents, and the macro-level influences of the state and federal factors. Consistent with Janis (1959), Mezirow's theory accounts for the learning of individuals that transfers to decision groups as the collaborative groups attempt to grasp and negotiate information that is complex, ambiguous, uncertain, or in competition with other information as also described by Mumby (1988) and Flyvbjerg (1998). It also recognizes the role of the individual to gather and interpret knowledge and remain autonomous as a member of a group. Mezirow's theory spans both the individual and the group, taking into account individual decision making, group dynamics, and the interaction with the larger environment.

Although the decision models that typically exist in organizations use some form of collaborative decision making process, there are additional considerations about school-based collaborative decision making that further support Mezirow's transformational learning theory as an appropriate theoretical frame.

The literature suggests a lack of clarity about the degree to which teachers should be empowered to lead, and how participation relates to quality and outcomes of those decisions (Conway & Calzi, 1996). Smylie (1992) argued that "there are some aspects of participation about which a great deal is known. There are other aspects that remain murky and unexplored" (p. 53). He added that the initiatives to increase teacher participation "has far outpaced

development of knowledge about the subject" (p. 53). There is agreement that decision making is a multiple-domain construct and individual participation outcomes vary by domain (Bacharach et al., 1990; Duke, Showers, & Imber, 1981). Consensus is lacking about what the domains are and how they are defined (Conley, 1991). In practice, the domains that are identified are often not clearly distinct from other domains (Murphy, 1988). Teachers are selective about the decisions they wish to participate in. They express greater desire and a higher expectation to participate in decisions related to classroom instruction, and they show less desire and lower expectation to make decisions about administration and managerial issues (Conley, 1991; Duke et al., 1981). The particular social organizations of schools contribute to teachers forming opinions about the potential benefits and costs related to collaborative decision making (Smylie, 1992). Smulyan (1987) described successful school collaborative group members as confident and willing to share ideas and concerns; as exerting strong leadership within the group, and as those willing to take risks in a supportive school climate. These qualities may influence the roles individuals assume on collaborative groups, but "teachers can also acquire such attitudes and skills through their participation" (p. 60). Mezirow's theory of transformational learning accounts for the development of teachers as members of decision groups, as leaders on some groups, as implementers on some groups, and as learners who have to negotiate the complex school environment in similar ways their collaborative groups do. The following overview presents the organizational decision making models that occur frequently in the literature and reasons why they do not serve as the models for the current research.

Justification against using other decision making models.

A number of decision making models exist in organizational theory literature. The following models appear frequently in the literature and are examined here as models that may be viable in some situations, but are not acceptable for use in this study.

The *rational model* is described as a portrayal of the environment where organizational decisions are based on organizational units using information in rational ways to make choices. A purely rational approach assumes that the range of possible alternatives and the consequences following the alternatives are all known (Huber, 1981; Simon, 1979; Simon et al., 1987). The rational model is conceptualized through a "bounded rationality" that "make modest and realistic demands on the knowledge and computational abilities" of the decision makers (Simon, 1979, p 496). By the 1950s, bounded rationality was proposed as a way to make optimal choice using reasonable amounts of calculations and incomplete information (Friedman, 1979). Although the rational model, in a classical form and with a bounded alternative, serves as a foundation for other models, it has severe limitations. Rationality was "never designed to handle" situations "involving decision making under uncertainty and imperfect conditions" (Simon. 1979, p. 497). In its bounded form, Simon (1979) was critical of rational decision making for its failure to account for the full range of human decision capabilities and does not predict a process for decision makers to account for costs and returns at the point of choice.

The *political model* is represented in an environment where decisions are results of organizational units using strategies to influence decisions and to bring about choices favorable to the unit (Huber, 1981; Pfeffer, 1981; Pettigrew, 1972). Baldridge (1971) argued that the political model frequently describes organizational reality as viewed as a coalition, where conflict exists among members and decisions get made based on who has the power to dominate

a particular context. Decisions in this model often derive from the allocation of resources. Pfeffer & Salancik (1974) described two classes of decision variables related to resource allocation. There are variables that represent the bureaucratic criteria and those that represent the political. "Organizational decision making, particularly with respect to decisions that allocate resources within the organization, are political in nature," and "considerations of relative power of the subunits, as well as of bureaucratic criteria, are necessary" (p. 138). Power, especially power as wielded by horizontal subunits within an organization, was emphasized in the political model by Perrow (1970). Tarter and Hoy (1998) argued that a political model is rarely, if ever, an appropriate strategy for an organization. They claim that although politics is inherent in organizational life, if politics becomes the dominant force the organization can often become dysfunctional as all goals can be seen as constraints. As a consequence, one goal dominates and one individual or one group dominates as the organization's energy is absorbed by that one goal (Tarter & Hoy, 1998). More often than not, an organization subscribing to a political model fosters personal preferences over organizational intention resulting in conflict, chaotic, and manipulative decision making (Tarter & Hoy, 1998).

The *garbage can model* essentially presents decisions as consequences of "intersections of problems looking for solutions, solutions looking for problems, and opportunities for making decisions" (Huber, 1981, p. 4). Cohen, March, and Olsen (1972) described the garbage can environment as unstructured decision processes. It does not subscribe to behavioral or normative theories of organizational decision making, yet it surprisingly serves useful for interpreting choices in certain contexts (1976). The garbage can model emerged as part of a critique of the rational model. Decision making is characterized by organized anarchy, rather than through a straightforward rational process. A mix of problems and possible solutions are in existence in an

organization. The mix is determined by the number of decisions handled, the number of people involved, the decision load of the organization and the amount of resources, time, and attention devoted to decisions (Cohen, March, & Olsen, 1972). In this model, action taken toward decision making is described as random rather than linear, and the degree of anarchy is determined by the involvement and attrition of members of the decision process. Problems and solutions are seen as being subscribed to individuals who enter and leave the process. The mix of individuals determined which problems rise to the top of decision making agendas (Padgett, 1980). The garbage can model is often used in the public policy arena, especially when formulating budgets. It does not serve this current study with its emphasis on how problems are prioritized as many of the current "problems" schools face are dictated by the meso and macro environment under the guise of accountability. Further, the garbage can model does not take into consideration how individual players impact the decision making process. This study used identified problems and a collective decision making process to explore how the environment is engaged.

Another model, *the program model*, is designed to guide decision making when rationality and analysis do not. Simon (1978) suggested that organizational decision making is adversely affected by the limits of human decision making. Mintzberg's (1975) work showed that a manager's task environment was not conducive for making high quality decisions. When human decision abilities are limited or in the absence of thoughtful analysis usually as a result of time constraints, organizations may rely on standard operating procedures, group norms, budget limitations, or other action-directing and action-constraining organizational programs (Huber, 1981). In its basic form, the program model results in decisions that are consequences of programs and programming of the units involved. Programming of organizational members and groups develops when decision making behavior is influenced through such events as

professional development, on-the-job-training, and reinforcement of past decisions (1981). Yet, the program model does not adequately allow for the exploration of alternatives when dilemmas occur that require new norms to be established.

Other decision making models exist, including the *CAGE model* for improving performance, the *ethical model, intuitive decision-making models*. Most models are operationalized but lack an extensive theoretical foundation. Although Mezirow's transformational learning theory is not traditionally viewed as a decision-making model, in comparison with the other models, Mezirow's model offers the complexity needed to examine the individual as a meaning maker, learner, and decision-maker as part of a collaborative groups wherein group dynamics play out, influenced by environmental factors.

Transformational learning theory has a strong decision making component and incorporates knowledge attainment and management to allow a flexible and dynamic engagement with the entire environment. Many theorists address the importance of knowledge management in environments where complexity, uncertainty and ambiguity exist. Mumby (1988) argued that most organizing processes fail to consider the role of sense making and explore relationships among communication, meaning, and interpretation. Levitt and March (1988) pointed out the difficulties in organizational change involve the ambiguity of success and the complexity of experience. Simon et al. (1987) described problem solving as being limited by the "complexity of the world in which we live, the incompleteness and inadequacy of human knowledge, [and] the inconsistencies of individual preference (p.13). Hickson (1987) argued that attempting to achieve the rational ideal of "amassing and evaluating all possible information on all possible alternatives would be mind blowing," so "decision makers content themselves with enough information to make limited comparisons between alternative decisions" (p.168). The

problems and limitations addressed through these critiques are addressed through the stages of knowledge development Mezirow incorporates within the transformational learning theory to identify and problem solve during a dilemma.

Gaining Knowledge and Understanding for Decision Making

A complete examination of individual decision making through collaborative structures also includes the way information is attained and understood or how it is transformed to create new knowledge. Information often exists in complex forms. Information may be ambiguous; it may be unclear if it is packaged in fragmented ways. Information may also compete with opposing information, requiring groups to determine what is relevant and appropriate when addressing a particular dilemma (Zack, 1998). Information can exist in the form of pieces of data or in the form of alternatives for selecting a course of action. Mintzberg et al. (1976) found that decision makers select among alternatives by using judgment, bargaining, or analysis approaches. According to Mintzberg et al., judgment is the use of intuition without explaining rationale; bargaining is having participants in the decision reach a consensus, and analysis is when decision makers use factual evaluations. Nutt (1984) examined 78 business decisions and found judgment used to evaluate alternatives 93% of the time, bargaining was used 4% of the time, and analysis used 3% of the time. Mintzberg et al. (1976) and Nutt (1984) isolated tactics such as judgment from the macro application of decision making processes. The degree of the success of decisions often depended on the complexity involved in alternative evaluation (known as technical difficulty).

A decision is considered complex when an evaluation approach is not evident and opposition exists to any decision that would bring about change. The more technical difficulty exists, the more decisions factor in judgment. Mumby (1996) used the term effectiveness as a

way of describing how knowledge claims are made. He stated that technical rationality is directional toward knowledge concerned with control and prediction. Mumby (1996) also described a rationality concerned with individual and collective attempts to understand, interpret, and make sense of experiences. Neither approach to knowledge attainment is unitary or singular in leading toward an understanding of organizational effectiveness (1996). Effectiveness is not a monolithic concept formulated through managerial outputs; it exists in the complex relationships between individual and group sense making and formal and emergent structuring (1996). Poole and McPhee (1983) examined communication studies and reported that communication climate is an intersubjective phenomenon that is continuously structured and restructured as members engage with their environment.

Judgment and effectiveness can also be understood through the frame of adult learning in terms of dialectical thinking proposed by Riegel (1973) and explored by Allman (1999) and Irwin (1991). Dialectical thinking is a form of adult reasoning classified by a continuous exploration of the relationships between rules and the idea that static patterns of thought and permanent resolutions to intractable problems do not exist. Adults think dialectically when they encounter decision making situations in which universal rules, moral strictures, and causal reasoning are intersected with contextual imperatives (Allman, 1999; Brookfield, 2000**;** Irwin, 1991; Riegel, 1973). “The recognition and honoring of the importance contextuality- the recognition that specific situations make nonsense of general rules or theories – is something that is learned developmentally” (Brookfield, 2000, p. 3).

Instrumental to this interaction between rules and contextuality is Mezirow’s (1998) concept of critical self-reflection, which develops the capacity to know how we know what we know. The self-reflection involves the learner examining the assumptions, the causes, the nature,

and the consequences of the influences that predispose an individual to adopt specific goals. Critical self-reflection is particular to adults as it requires individuals to experience interpersonal, work, and political lives that vary in depth, difference, and intensity (Mezirow, 1998). Adulthood is distinctive in its search for meaning after experiencing complex, ambiguous, and contradictory realities (Brookfield, 2000; Mezirow, 1998). Mezirow (1991) stressed that adult knowledge attainment is an incremental movement through reflection that takes alternative perspectives on the familiar, builds capacity to challenge assumptions, and develops tolerance for ambiguity. Simon (1988) stated that taking such a critical perspective that challenges accepted thought and practices can cause organizational members to feel despair as they learn of the powerful forces that may work against them. He countered this notion by arguing that using learning communities can help to understand that colleagues experience the same contextual barriers and fluctuations in commitment. Knowledge develops that can be used to resolve work-related problems to institute effective change, even if it does not lead to understanding about how barriers can be removed (Simon, 1988).

One recent study that conceptualize the theoretical understanding of knowledge attainment and usage of knowledge in small group processes is Newton and Sackney's (2005) examination of three school boards. They conceptualized group knowledge as a phenomenon influenced by political/structural and social/relational factors composed of cognitive, affective, and axiological dimensions. Knowledge was distinguished from data and information and defined as the "links people make in their minds among information, action, and context (p. 435).

Knowledge is a concept encompassing information, the meaning derived from information, and the application of information in a specific or new context. Information was

characterized as either shared or unshared. Propp (1997) argued that unshared information was a characteristic of effective group decision making, because a group more efficiently weeds out redundant information. Stasser (1999) stated that groups benefit largely from using shared information, which is termed "cognitive centrality" (p. 66). Shared information provides validation for individual beliefs and creates shared realities (Bowles, 1997).

In conjunction with cognitive dimensions, affective and axiological dimensions interact to shape group knowledge, learning, and decision making. Affective knowledge captures emotional triggers and "the available information on which to build knowledge may be skewed toward knowledge building instances in which emotions play a part" (Newton & Sackney's, 2005, p. 437). Values, considered part of axiological dimensions, appear to operate in ways similar to emotions, which is to assign relative weight to the alternatives considered by decision makers (2005).

Newton and Sackney's (2005) Canadian study used the Critical Decision Method (CDM), which is a process used to reflect about non-routine incidents. The provincial school boards' association nominated boards it regarded as functional. Three boards comprising a convenience sample was chosen, and a Likert-scaled survey was administered to the members of each. The survey was followed by each board to recount a time when the board faced a critical decision. Board minutes were used by the researchers to verify temporal incidents and decision points, such as whether to hold a board meeting or not.

It was reported that the boards showed strongest support for the idea that the boards' primary role was policy making and that teamwork between the boards and administration should be emphasized. In the area of social/relational aspects, the three boards had distinct methods for gaining and sharing knowledge. The Prairie School board used storytelling and

reliance on shared decision making to build consensus. The St. Ferdinand School Board used transactual patterns of communication. Members spoke directly to one another. Unshared information often occurred when communication was directed to small groups with the board, rather than to the entire board. The Branchland School Board often directed communication to the entire group. A predominant reliance on shared information was used to attempt to present a clear and complete picture of the issue. Consensus was generated to balance alternatives; however, the researchers did not note much evidence of negotiations of competing perspectives.

Knowledge was presented in tacit and explicit forms. As board members were immersed in the culture of the community they represented tacit structures in terms of "I felt" and "I sensed" as they encountered the complex realities of the meso environment (2005). Community reaction was funneled to the groups as explicit understanding that made sense of tacit knowledge. New board members were inducted to the boards through training about board processes and protocol, rather than on the orientation of the social context of the board. Emotions and values factored equally with cognitive knowledge to align tacit and explicit understanding and weigh decision alternatives. Newton and Sackney's (2005) further reported that communication and knowledge attainment and sharing did not subscribe to a rational process; social, political, and cultural identification and understanding may contribute to increased effectiveness in group decision making.

A decision-making process appropriate for this current study must factor in a learning dimension for evaluation approaches and account for difficulties inherent in finding and choosing alternatives: complexity, ambiguity, uncertainty, and equivocality. The existing literature often assumes that the negotiation of understanding is inherently addressed through the decision making process, rather than as a separate and deliberate action that must actively

become part of the process. “Decision making research seldom considers how situational factors, such as complexity, influences tactic selection and tactic success” (Nutt, 1998, p. 1149). Collaborative group members, in order to be effective, must also be learning group members (Mezirow, 1997). Davidson (2009) synthesized research about teacher-driven action research and the role of inquiry to state that inquiry assists teachers to delve deeply into difficult dilemmas and ask questions, face the discomfort of not knowing the answers, and then explore ways to address them. Inquiry as a form of knowledge attainment uses confrontation as a tool to allow teachers to question their own biases and assumptions and do better work (2009).

Marks and Louis (1997) examined school-based shared decision making as a construct of teacher empowerment. Using a mixed-method design involving 24 urban schools spanning 16 states and 22 school districts. All of the schools practiced some form of site-based decision making. Teacher participation in decision making was shown to bolster empowerment, which Marks and Louis described as increased commitment, expertise, and effectiveness. The results also showed that the enhanced empowerment directly improved the professional community within a school. Shared decision making increased the sense of shared responsibility and student performance, and teachers felt more confident about their abilities to teach all of the students in their school.

The Marks and Louis research built an argument for shared decision making based on the empowering of teachers to better engage a professional community. The community described by the researchers was aligned to Mezirow’s transformational learning theory as it described teachers developing a shared sense of purpose, de-privatized practice and, most importantly, reflective dialogue. According to Mezirow, “reflection means validity testing” (1991, p.105). It is the “critique of assumptions about the content or process of problem solving” (p. 105). Shared

decision making increased the ability of the teachers in the study to make better sense of environmental data to make better decisions about student instruction.

Taylor (1997) used a critical literature review to examine empirical studies that used Mezirow's transformational learning theory. He critiqued 39 studies, all of which employed qualitative or phenomenological designs. Five studies included quantitative methods. He found that the empirical research supported Mezirow's claim that the "revision of meaning structures seems to be initiated by a disorienting dilemma followed by a series of learning strategies involving critical reflection" and exploration of roles and options and negotiation of relationships (Taylor, 1997, p. 44). Taylor categorized the investigations in the following way (figure 4):

Figure 2: Taylor's categorization of research using Mezirow's learning theory.

The concept of adult learning as a process to gain, understand, and use knowledge spans across many disciplines and life events. In the educational setting, transformational learning

theory is applied as a broad skill applicable to problem solving and decision making and not only about school decisions.

Nutt (1998) examined 317 strategic decisions from profit and not-for-profit businesses to determine how complexity indicators influence the use of evaluation tactics and their success. Questionnaires and interviews were used to collect data. Two-thirds of informants were top executives (CEO, COO, or CFO). The other informants were line managers, staff members, and task force members. Interviews were used to uncover the steps taken in each strategic decision. Triangulation of the multiple informant responses was used to describe the decision and the steps taken. Using decision summaries, Nutt found two categories of practice to choose among alternatives: "the sources of information depicting performance and the approach used to make an assessment with this information" (p. 1151). Interrater reliability was determined through a review of the sorting by a colleague of Nutt with a 97% agreement.

Nutt (1998) found through the interviews that complicated decisions arose when decision makers were unsure of how to perform an evaluation of alternatives. "This initial groping to select an approach preceded information collection and its evaluation" (p. 1164). As the number of alternatives increased, Nutt found that decision makers used analysis tactics more and judgment less, which is different from what Mintzberg et al. (1976) and Nutt (1984) found in earlier research. The success rate of decisions was improved by using analytic tactics except in situations that had political and procedural difficulties. Political considerations prompted the evaluation of alternatives and created ambiguity about how to perform the evaluation. According to Pfeffer (1992), political considerations necessitate arguments to head off criticism. In Nutt's research, judgment was often used to systematically reveal or hold information until resistance was known. The "decision makers balanced objective information, such as performance

indicators, with information that indicated the prospects of resistance from key people" (p. 1165).

Nutt's research provided insight into how decision makers gather and evaluate alternatives and the success of these practices. Earlier studies described nonlinear decision making processes of uncovering and evaluating alternatives and implementing a favored alternative, but how the knowledge was managed to evaluate the alternatives in a complex environment with pragmatic and political considerations was often overlooked with researchers such as (Cyert and March, 1963; Mintzberg et al. 1976; Nutt, 1984). Nutt's 1998 research examined a more sophisticated environment and expressed the need for decision practices to consider the pursuit of intelligence and the use of information as alternatives are considered.

Effective Collaborative Grouping for Decision Making

Inherent as part of the problem-solving process within a school are relationships among micro, meso, and macro environmental influences and the actions required for group members to engage information in efforts to make sense of data to form new knowledge needed to implement change. Collaborative leadership represented one approach to school leadership and management that involves the empowerment of people from within the school community to provide direction for the organization (Ackerman & MacKenzie, 2007; English & Anderson, 2005; Glanz, 2005). Site-based decision-making was a term that appeared in the literature as both synonymous with collaborative decision-making and as a concept that included collaborative decision-making under the umbrella of school autonomy. Collaborative decision-making was also distinguished from site-based decision making as a broader term including collaboration with those external to the school site (Beck & Murphy, 1998; Bowers, 2008; Conley & Goldman, 1994). For the purpose of this study, the collaborative properties of site-based decision-making were examined

under the general description of collaborative decision-making. This review of literature examined each aspect of collaborative decision-making from the recognition of environmental influences on knowledge attainment and management and through the involvement of individuals in decision-making groups.

Effective collaborative group decision making relies on distributed leadership among the administration and informal and formal teacher leaders within a school (Polite, 1993). In addition to shared leadership, effective decision making groups (as measured by intended outcomes) require that the group members have access to information, have mechanisms to deal with complexity, ambiguity, uncertainty, and competing interests (equivocality), have a shared purpose, and have sustainability as a group (Goodlad, 2002). Traditional school hierarchy positions the administration as the decision-making body for a school. Collaborative decision making also depends on teacher leaders in decision roles. The literature on teacher leadership predominantly supports teachers having direct involvement in the school decision making process alongside the principal (Gronn, 2000; Hart, 1995; Schlechty, 2001; Spillane et al., 2001; Taylor & Bogotch, 1994). Tyler and Cuban (1995) described teachers as street level bureaucrats who shape educational policy through classroom practice. For school reform to be successful, teachers need to be fully integrated into the decision-making process (Conley & Muncey, 1999; Urbanski and Nickolaou, 1997). This may have implications for structuration theory (Giddens, 1984) as teachers re-define the norms associated with the decision making structures in schools, which are set to constrain the action of individuals. The structures are not permanent and not fully explained by external, macro-level concepts. As teachers demand more decision making authority, hierarchical decision making may be challenged.

Group discourse.

Part of the examination of collaborative team members involves gaining insight into the conversational process, social interaction, and linguistic interactions among team members. Group discourse was the focus of the qualitative Scribner et al. (2007) study. The research protocol for this study includes observing each of three teams (Lead, Vertical, and Grade-Level). Gaining insight into the group dynamic and the topics discussed directly impacted the evolution of the interview protocol as the participants were asked to reflect on their thinking as individuals and as members of a group. Situational and social factors of distributed leadership were examined among two teacher teams at one secondary school. The researchers used field notes, audio, and videotape to form comparative and discourse analysis of the teacher teams, which are part of the only comprehensive high school of 1,650 students in a mid-sized town. The school had a long history of using teacher teams. Scribner et al. (2007) found that collaborative interaction could be understood using three constructs: purpose, autonomy and patterns. Patterns of group discourse, which occur through natural linguistic interactions among team members, were shaped by purpose and autonomy, which were defined by organizational conditions and situations. The purpose and autonomy within a team can shape the social distribution of leadership.

Teacher attitudes and beliefs shaped by assumptions and experience was Gill and Hoffman's (2009) focus in an investigation of teachers' discourse and beliefs about learning and instruction articulated during shared planning time. Gill and Hoffman argued that although instructional beliefs are difficult to measure, they shape pedagogical decisions teachers make in the classroom. Using a team of four eighth-grade math teachers from one middle school, teacher talk was analyzed to detect rationales driving decision making related to subject content, the

students, learning, and teaching. A case study method was conducted to record weekly shared planning meetings during one semester. Field notes and audio recordings were coded based on semantic relationship domains. Gill and Hoffman (2009) found that a consistent theme supporting a belief in a traditional transmission model of delivering instruction. Teachers relied on general pedagogy, curricular choices, textbook choices, and beliefs about student learning that were based on assumptions such as the necessity of didactic delivery of information from the adult to the child that emerged from teacher talk but were not the subject of reflection by the teachers. The shared planning used traditional beliefs as a foundation to decide on content and instructional strategies, but did not serve as a catalyst to search for alternatives through self-awareness or critical reflection to use Mezirow's terms.

Teacher teams as examined by Scribner et al. (2007) were described as a central component of the school paradigm by Clark and Clark (1994). Teacher teams are formed to identify and solve identified problems. They also serve the function of identifying and solving indeterminate problems (1994). Teacher teams engage through conversation and leadership can be viewed as an emergent activity (Gronn, 2003). Leadership is a constant learning activity, but little is known about how the conversational process leads teachers to identify problems and make decisions (Sawyer, 2001). Some interactions within the teams could have unintended outcomes, such as committing to a decision that may not be optimal without pursuing alternatives (Scribner et al. (2007) as Mezirow (1981) suggested.

Teacher role in decision making.

Maynard-Moody and Musheno (2003) used Lipsky's (1980) work to define the roles of street-level bureaucrats to question the assumption of the street-level worker as one who merely implements policy. During a three year period, they collected and analyzed stories from 48

workers across three groups in the public sector: police officers, teachers, and vocational rehabilitation counselors. Their work was divided into three sections. The first detailed the framework for the study of how "make sense of their world and account for what they do" (Maynard-Moody and Musheno, 2003, p. 9). Countering Lipsky's argument that the involuntary controls that state agents exert on street-level workers through laws, rules, and regulations, Maynard-Moody and Musheno (2003) claimed that workers balance the implementation of policy with the perceptions they hold of the citizens they come in contact with. These perceptions alter the way the workers apply rules, decide on work behaviors, and use moral judgment. They found that workers often believe that their perceptions about the citizens "continually rub against policies and rules" (p. 4).

The second section focused on worker identity. Workers routinely identify themselves through their occupational labels as well as along race, gender, and class lines. The researchers found that workers would unite against management to protect other workers they bonded with even when there was evidence that the workers committed a crime.

The third section presented the argument that street-level bureaucrats are influenced by their own moral judgments rather than rules and regulations. Fairness and justice in the eyes of the workers had little to do with bureaucratic norms but rather the perceived worth of their clients. Worth was defined as the genuine need, good character, civility, deference, and motivation of the client to respond to the advice of the worker. Workers employed the bureaucratic rules to protect themselves, withhold services, or even punish those deemed not worthy.

Maynard-Moody and Musheno's (2003) research is valuable in its use of narratives to describe the actions and behaviors of the workers. The richness and detail of the stories provided

concrete examples of the intricacies of street-level behavior. The research is limited by the relatively small sample size (48 stories), especially when the researchers draw broad conclusions such as that street-level workers see themselves as not accountable to elected officials, and do not work for supervisors but rather for the citizenry. Yet, the study highlighted the individual and the group dynamics that shape group decision making.

Mezirow's adult learning theory recognized that street-level workers, such as school personnel, impact organizational decision making at both the policy and implementation levels. If teachers serve as more than just implementers of policy, their access to information through access and exposure to environmental influences are vital to effective participation in collaborative groups. When group members lack the ability to negotiate the environmental context, decision making may not be effective in the current era of school reform.

One study by Rhodes et al. (2009) that investigated the negotiation of the environment examined a collaborative micro-level intervention designed to increase the role teachers played in identifying problems and articulating and implementing solutions. Analysis of survey data from 180 teachers and 2,631 students, demonstrated that when teachers were active collaborators, their perception of school climate, school affiliation, and academic focus were more positive than before the intervention. Teachers also reported positive perceptions of principal support. The students in the intervention schools as compared to those in control schools reported improved school climate.

School leadership is not solely embedded in formal roles; leadership roles emerge through relationships between people (Crow et al., 2002; Scott, 1992; Smylie et al., 2002). The 1990s demonstrated a renewal of networked leadership described by Barnard (1968) and Thompson (1967)**.** Smylie et al. (2002) incorporated their work to describe networked leadership

as an emphasis on *what school members do*, rather than *who is doing it*. It challenges the belief that leadership is assigned with specific positions within the school. Firestone (1996) described leadership in terms of functions. The performance of activities was more important to emphasizing leadership roles than focusing on specific people and positions. Another perspective on leadership frames it as an organizational resource (Ogawa & Bossert, 1995; Smylie et al., 2002). Leadership is embedded in the networks formed through multidirectional social influence occurring among students, parents, teachers and administrators (Ogawa & Bossert, 1995; Smylie et al., 2002).

Participation in decision making.

Mulford, Kendall, Kendall, Hogan, & Lamb (2001) used data from a 1996 survey of 122 principals, 833 teachers, and 889 school council members to determine the perception of the implementation and effectiveness of school-based management. They focused on the population of principals, teachers, and council members at the 7th-10th grades to examine the perceived level of involvement of various individuals in the decision-making process, the perception of who determines school policy, and perceptions of constraints to decision-making. The researchers disaggregated the micro, meso, and macro resources used in decision making; however, they did not attempt to examine how the group members negotiated the environment to attain those resources. The researchers reported that principals were perceived as having a small role in determining school policy alone. Eleven percent of the subjects reported determining policy in the areas of allocating non-teaching duties, planning, and finance. Twenty-five percent of the respondents indicated principals selected staff. Overall, 76% of principals reported that the entire school teaching staff helps shape discipline policy, 44% reported that the entire school teaching staff shapes curriculum objectives and teaching methods. Eleven percent of principals

reported that the entire school teaching staff determines content for each subject area. Principals perceived district control was greatest with regard to the level of staffing (88%) and the selection of staff (61%).

The Mulford et. al. study was valuable for identifying the subcategories of content for which school leaders are responsible. The perceived level of involvement of micro and meso factors in decision-making was the focus in this study. The researchers found that committees were often used in schools except in matters concerning staffing. Students comprise about 39% of school-wide committee membership and parents were likely to be represented on planning committees (67%), school evaluation (56%) and finance committees (50%). The parent participation is consistent with data presented by other studies (Hoover-Dempsey, Walker, Sandler, and Whetsel, et al., 2005; Hoover-Dempsey and Sandler, 1997). The level of involvement in decision making followed school hierarchy. The higher one was in the hierarchy, the more likely one was involved in decision making. High school teachers perceived a lower level of involvement than their principals thought they had. Teachers were most likely involved in determining policy directly affecting the classroom such as curriculum and teaching.

The Mulford et al. research found that principals felt positive about decision making in their schools. Two-thirds of teachers saw principals as providing effective leadership and decision making "characterised by collaboration, cooperation and consultative processes" (p. 71). This dropped to half when considering the implementation of effective policies. At the same time, in contrast with principal perception, 40%-60% of teachers saw management as top-down, and the decision making process was slow and difficult. "The values of the teaching staff and management was often in conflict with executive management taking preference over collegial decision making" (p. 71). Even though the study provided insight into the how school leaders

made decisions in many areas, it did not consider how decision-groups members attained the knowledge or made meaning from information from which decisions were made. A transformational learning theory would help to address that issue.

An American longitudinal study of the implementation of a shared decision-making (SDM) structure was conducted during a five year period by Weiss and Cambone (1994). They investigated 12 schools, half of which had instituted a system of SDM at least two years prior to the study. The other six schools operated under traditional leadership. The purpose was to find out how decisions were made, about what issues they were made, and with what consequences. In particular, one goal was to investigate "claims that involving teachers in school decision making would move schools toward reform of curriculum and instruction" (p. 289). The six schools using SDM were in Miami, Denver, Seattle, Boston, Salt Lake City, and rural Maine. The six traditional schools mirrored the demographics of the SDM schools and were located in San Antonio, Chicago, Louisiana, Boston, Oklahoma, and rural Virginia.

Structured interviews with teachers, principals, assistant principals, guidance counselors, and librarians focused on a specific decision that the participant had been involved in (or knew a great deal about). The decision could have been unresolved. The researchers asked participants to comment about curriculum or decisions about a program whenever possible. Only 35% did so.

Weiss and Cambone (1994) found that SDM enhances the opportunities teachers had to influence decisions but relatively few teachers become active in the process. It required a great deal of time and energy and, to some degree, detracted from the classroom. The types of decisions in the SDM and traditional schools were only moderately different. SDM schools were more innovative, but the innovations usually came from administrators. As a consequence, teachers were reluctant to accept innovations, slowed down changes that administrators sought,

and slowed reform initiatives in general. The three principals who were most committed to SDM found the most resistance from teachers. They saw SDM as part of the entire reform platform. The most prominent tension, which ran through all 12 schools, was the division between those who thought the school was acceptable as it was and those who saw problems requiring basic change. Principals were often ready to abandon SDM temporarily when they thought it prevented necessary change. The shared-decision making in their research showed teachers in more of a consultative role. Considering the conflict among staff members, knowing how each teacher experienced the decision process and gained knowledge to articulate his/her position could have been useful. A phenomenological approach based on a learning theory would have allowed interpretation of the shared decision experience to possibly discern what adjustments to the process would have been most effective.

Polite (1993) used case study to examine a middle school in Missouri during the transformative process of shifting from a junior high school to a middle school. Polite found that distributing leadership through the teacher ranks and allowing for the development of collaborative decision making structures increased staff involvement, staff development, and focused decision making about instruction. The researcher found that teacher leaders who work through collaboration can produce systemic change, which highlights the importance of the member make up of decision groups.

The results were from one middle school, limiting the generalization of the findings. Researchers did not explore the dynamic aspect of the micro, meso, and macro contextual elements of the environment, except to identify the topics teacher leaders made decisions about. The research also did not address the degree to which each collaborative group member impacted the change process. When examining distributive leadership, separately looking at the individual

as a decision maker and as a collaborator would provide a richness to the results and show how distributed the decision-making power was.

Another research study concerning teacher participation in decision making was conducted by Smylie (1992), who examined teacher willingness to participate. The research was conducted during a time when building level decision-making councils were being formed under a new contract between the district and the teachers' association to expand teacher participation in school-level activities outside of the classroom. The district's entire teaching staff of 200 was surveyed in the middle of the school year during faculty meetings. The survey produced a 60% return rate. The study explored teacher willingness to participate in decision making in the areas of personnel, curriculum, instruction, and general administration through the following four antecedent variables: (1) principal-teacher relationship, (2) norms influencing working relationships among teachers, (3) teachers' perceived capacity to contribute to decisions, and (4) teachers' sense of responsibility and accountability toward students.

Using a 4-point Likert-scale, Smylie presented standardized and unstandardized regression coefficients to account for variance in response. He found that teachers were most willing to participate in curricular/instructional decisions (3.16 mean). Next was staff development decisions (3.00 mean), then was general administrative decisions (2.68 mean), and personnel decisions (2.26 mean). Using an alpha level of .05, Smylie found five statistically significant relationships between the antecedent variables and willingness to participate. The variable having the greatest influence was the principal-teacher relationship. The findings suggest that the success of new school decision-making structures is directly influenced by teachers perceiving open, collaborative, supportive, and facilitative relationships with principals.

One study conducted by Piper (1974) sought to compare decision-making by individuals as to those made by a group. A sample of 82 graduate students in education were tasked with deciding individually and then in groups of 3-5 persons the order of importance for items necessary for survival in space. Piper sought to explore the degree of correctness of answers from individuals compared to group and if a person who made decisions after soliciting information and consulting colleagues would be more correct than if the decisions were made by acting alone. Using a 15 item instrument developed by psychologists and validated through a NASA scoring model, Piper found that group decisions were more correct than decisions made by someone acting alone, sometimes by as much as 32 points. Decisions made by individuals using information and advice from others were more correct than decisions made by the same individual acting alone regardless of if the individual had the knowledge to make the best or worst decision of any member of the group.

Piper's study set up a participative group where participants scored ordered the items alone and then in groups; a control group consisting of seven members was established to order the items alone and repeat the process alone while others were randomly assigned to groups. Data was analysis using a pretest-posttest model to find average error scores. Correlated sample *t*-values were computed and checked for significance through the two-tailed test of probability.

Piper's research might suggest the reasons why site-based decision making and collaborative leadership has become standard in the educational environment. Limitations of his study were that only half of the participants had educational administration experience (elementary school) and the instrument was not related to an area in which principals made decisions as a function of their job. The study did not directly address the value of group individual decision making compared to group decision-making in the school. Although

knowledge attainment was a practical consideration for the study, an examination of how the participants achieved the new knowledge was not operationalized through the methodology. In contrast, the adult learning theory has the flexibility to compare individual decision-makers to group decision outcomes by tracking the identification of the dilemma and the knowledge attainment pieces of the process.

In a longitudinal study of twelve high schools in eleven states, Weiss (1993) found that increased teacher participation helped school decision groups have more control over the decision making process. Conducting 193 structured interviews over 17 months, the researcher found that schools with higher participation did not increase the attention given to student concerns or the amount of innovation shown by teachers. Increased participation did result in increased professionalism, increased morale, and a stronger commitment to change. Six of the schools in the sample used a traditional administrator-driven decision structure. The other half implemented broader structures to allow increased teacher participation in decision making. As with the research conducted by Taylor and Bogotch (1994), Weiss did not seek to determine the collaborative structures as part of a broader micro, meso, and macro environment that also requires participation and negotiation.

Summary.

The research in the area of collaborative decision making in schools provided insight into the perceived level of involvement of teachers, increased knowledge about the grouping structures that frequently appear in schools, and the way schools operationalize groups when traditional hierarchical decision-making streams still exist.

The literature is limited in a number of areas. The examination of collaborative group members that serve across multiple decision groups within a school is scarce. The literature does

not sufficiently treat individuals as autonomous decision makers who bring their own judgments and capacity to a group setting. The literature acknowledged the dynamic interactions between decision makers and environmental influences in the area of organizational communication scholarship (Giroux, 1993; Mumby, 1996; Tompkins, 1993). Yet empirical studies do not address that individuals enter a group and remain individual players without being subsumed under group norms that works as a monolithic body to make decisions. Negotiation and constant reconceptualiztion is more the norm in these studies due to the conceptual framework, which is limited in scope by design. (Goodson, 1994, Jephcote & Davies, 2004; Kooiman, 1993). The methodologies most chosen in the research, namely case study and survey, often simplified the decision making process by not including all of the environmental (the micro, meso, and macro) influences on decision makers, even when distinctions were drawn between the different influences (Analoui & Karami, 2003; Lam & Punch, 2001; Mulford et al., 2001; Tam, 1994).

Mezirow argued through his theory of transformational learning that a productive worker must be empowered to "think as an autonomous agent in a collaborative context rather than to uncritically act on received ideas and judgments of others" (1997). Involvement in receiving and giving formal and informal feedback in the "context of important professional discussions" is important to developing a focus on "shared practices and goals" (Wahlstrom & Louis, 2008, p. 461). A school culture that fosters widespread leadership is a school open to widespread learning (Barth, 2001).

The ultimate goal of collaborative decision making in a school as presented in the literature is to increase student achievement. Research to date, however, suggested that involvement in collaborative decision making may have little impact on student performance (Leithwood & Jantzi, 1999; Marks & Louis, 1997; Smylie, Conley, & Marks, 2002; Wahlstrom

& Louis, 2008). The implication here is that non-traditional ways of examining collaborative decision making would serve to gain understanding about the impact of individuals within groups, how they develop capacity, and how they negotiate the environment.

Negotiation of Environmental Context for Decision Making

Micro, meso and macro environment.

The environment in which decisions are made also creates the knowledge upon which the decisions are made. In this respect, the environment is a key part of the decision-making process. Differentiation between the micro and meso and macro factors is relative. The distinction is not always clear in existing literature. Hall (1987) examined task environment and social environment as a way to divide the meso and macro levels, but the distinction is not absolute. Hall's focus was social competence and creating change in schools that can be transferred to other settings. Understanding the point of view of all of those who will adopt the innovation and those who are impacted by it was a primary concern over identifying environmental boundaries within which the stakeholders were situated. Bolman and Deal (1984) defined the meso and macro as the external environment and included everything outside the boundaries of the schoolhouse, even though the boundaries are change in response to organizational needs. Their focus was on how and in what ways organizations respond to a need to improve. Membership in a particular internal or external part of the environment is nebulous and fluid depending on the desired goal. Zack (1998) defined an organization's environment as "things it must pay attention to, come to understand, react to, or attempt to influence" (p.2). These include stakeholders, technologies, governmental agencies, and social and economic institutions (1998).

In the context of environment, global network organizations in the postindustrial information society that exists today cannot be overlooked. At the macro-level, Monge and Fulk (1995) described global organizations as having flexible, emergent networks that counter traditional hierarchies. They also develop sophisticated links to dynamic, changing networks of other organizations, and they have technology that supports emergent and flexible communication systems.

Wiseman and Shuter (1994) studied multinational organizations to examine the communication among group members of different cultures. They highlighted the misunderstandings that arise through communication events involving linguistic interpretation. Methods to foster improved communication and relationships within multi-cultural groups are identified and addressed. Learning theory, which suggests self reflection and actively challenging underlying assumptions could serve as a tool to address the complexities of deriving meaning and identifying alternatives when problem solving.

Mumbey (1996) viewed the environment in terms of organizational boundaries, which he considered permeable and in flux. There exists no clear division between organizations and society. Likewise, there existed no distinction between society and the small groups that form within organizations. Putnam and Stohl (1990) classified *bona fide groups* as having stable but permeable boundaries which are "created by and interdependent with immediate context (p. 256). They identified criteria that defines small groups. One criteria is that the members communicate inside and outside the group. The permeable boundaries are facilitated through the fluxuations in group membership, the relationships among members, the connectivity with other groups, and the overlapping and competing roles associated with group membership. Another criteria is the interdependence with external influences that often focus on the

authority to perform certain tasks, temporal control over situational decision making, and resource dependency. A third criteria is for the stable but permeable boundaries to have unstable and ambiguous borders. Groups construct a unified social construct that distinguish themselves from other boundaries, but "at another level, groups continually change, redefine, and negotiate borders to alter identities and embedded contest (Putnam and Stohl, 1990, p. 291).

Galanes (2003) used the theoretical foundation posited by Putnam and Stohl (1990) to examine group leadership in bona fide groups. Twenty-three group leaders who were considered effective were interviewed about their beliefs in what was important in leading groups. She found that group leaders take the role seriously and incorporate self-monitoring structures into their practices to improve their effectiveness. Five themes emerged from the in-depth interviews: (a) it was critical to establish the purpose related to undertaking a project; (b) team building and positive group culture was an important function of leadership; (c) the leader was responsible for monitoring key aspects of the team's interaction; (d) the leader also managed the group's task completion and kept the group focused; (e) communication and behavior characteristics of the leader were also important.

Using "thick description," Tompkins (1993) examined the Marshall Space Flight Center during 25 years that spanned the Apollo program to current dilemmas of space flight. The case study zeroed in on the functioning of one organization, rather than generalizing about the nature of all organizational communication. Tompkins (1993) focused on the center's recovery since the Space Shuttle Challenger disaster. He interviewed management personnel at the center to provide an assessment of the response the organization took in the aftermath of the disaster through first-person narrative. The findings provided insight into theory related to

understanding how organizational structure changes, how organizations react to crisis, how organizations respond to different leadership styles, and how organizations engage in revitalizing after failing (1993).

Researchers sought to delineate between the micro, meso and macro realms of the educational environment (Analoui & Karami, 2003; Lam & Punch, 2001; Tam, 1994). In general, the differences between the environmental realms were in terms of the degree of control over policy and practice, and the level of constraints placed on decision-making. The micro was described as the instructional, structural, human, political, and cultural factors within the school that directly impacted student learning (Tam, 1994), The meso and to some degree the macro was described as that which dispenses the information and resources the principal uses to alter or maintain the micro operations (Ball, 1994; Jephcote & Davies, 2004).

The globalization movement has reshaped the educational environment to the degree that traditionally accepted decision-making models may not serve the new social dynamic inhabited by public schools. Critical social theory accounts for the globalization of education and acknowledges that power plays a major role in configuring schooling as a part of social reproduction. Change is forged through negotiation, compromise and struggle (Apple, 1996; Giroux, 1983; Freire, 1970). Change is achieved through school members struggling against bureaucratic and authoritarian behavior and attempting to implement substantive rationality through communicative dialogue (Bowles and Gintis, 1976; Freire, 1970). The micro environment is a dynamic structure which exerts its own influence either in conjunction with or in opposition to external demands. Theoretically, school-level decision makers look to both micro (figure 2) and meso and macro (figure 3) environmental influences for input when responding to a dilemma requiring action using a collaborative decision-making process (Lam

& Punch, 2001).

Figure 3: Micro-level factors influencing school decision making

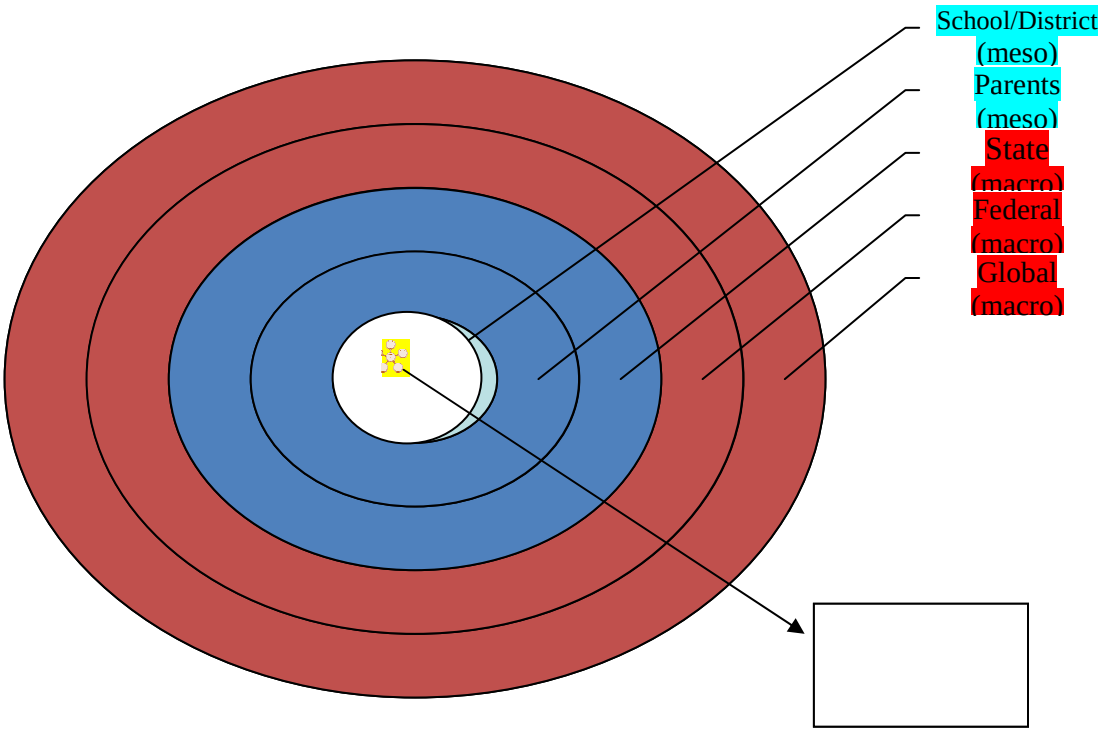

Figure 4: Meso and Macro-level factors influencing school decision-making

Micro environment.

Structure.

In the micro part of the educational environment, traditionally the school principal serves as the operational manager and instructional leader. Standards-based reform has caused the role of the principal to be redefined from the role of manager to instructional leader. With an emphasis on measurable gains in student academic performance, school administrators have come to rely on teacher-leaders as partners in achieving school success. Teachers are becoming recognized as street-level bureaucrats, a term Lipsky (1980) used to describe those who actually implement policy and thus wield political power. Lipsky argued that street-level bureaucrats in

the public sector often suffer from limited resources, subservience to supervisors that the street-level workers cannot select, and a constant negotiation of terms within tight constraints in order to appear to reach performance targets (1980). Recent studies have found that street-level bureaucrats actually make policy choices rather than just implement decisions of recognized officials (Mackey, 2008; Maynard-Moody & Musheno, 2003).

Although many public schools retain a hierarchical structure with the principal at the top, assistant principals next, and then department chairs/lead teachers, and classroom teachers at the bottom of school-wide decisions, actual power distribution, social interaction, and decision-making resulting in policy formation is more complicated, especially in the areas strategic planning, professional development, assessment, parent activities, and staffing. Researchers have identified areas at the school level for which instructional leaders should develop strategies to increase student achievement under school reform. One area that has the potential for influencing school success and healthy school culture is a *strategic plan* to address student achievement (Glatthorn, 2000; Reeves, 2002; Smith & Piele, 1997). Another area is the *professional development* that enables teachers to present the curriculum and develop skills for addressing the needs of children (Larson & Rader, 2006; Reeves, 2002). The *assessment* of student mastery through formative and alternative measures and school accountability assessment through summative measures, such as end-of-course testing is another (U.S. Department of Education, 2008). A fourth area is the *parent activities* that schools use to foster engagement between parents and children about schoolwork (Cotton & Wikelund, 2001; Goodlad, 2002), and the distribution of resources is another (Glatthorn, 2000; Reeves, 2002). In addition, the impact of the people in the school, namely the *staffing* of administrators and teachers to attend to students'

needs must be considered (Mulford et al., 2001)**.** When considering the micro environment, it is helpful to identify those who fulfill roles and interact within the schools.

Personnel and students.

The school site employs the services of many individuals including secretaries, custodians, cafeteria staff, and social service sector workers who maintain offices in a school to name a few. For the purpose of this study, the students, teachers, and administrators of schools who fulfill various roles in the daily operation of the school is the focus. Each has the potential to influence at micro-level environmental policies and practices. Administrators and teachers are the school members who serve as decision makers that impact the school from individual classrooms procedures to school-wide policy implementation.

School principals and assistant principals function in the overall administration of the school within highly complex roles. School-wide decisions require their approval and support. Administrators may be responsible for scheduling classes, coordinating transportation, custodial, and other support services. They may handle student discipline and safety matters. In addition, assistant principals implement the principal's instructional vision through teacher supervision and data analysis. Administrators, especially the principal, are held accountable for the financial, safety, and academic health of the school (Angel, Reitzug, & West, 2008).

Content/Grade-level teacher leaders often serve as the liaison between the classroom and the administration. Decisions across lateral and vertical lines will most likely reflect their input. They fulfill instructional roles often associated with principals and assistant principals in the current educational environment. Teacher leaders oversee daily operations and resource management for departments or grade levels. They are perceived as instructional leaders in their departments and may be responsible for developing and coordinating curricula and

evaluating instruction. Additionally, teacher leaders serve the function of managers, influencing policy through regular contact with the administration and serve as intermediaries between administration and the department to bridge two distinct but related bodies in the school (Zaleznik, 1998).

School teachers help students delve deeply into the subjects introduced through elementary school. In the current environment, teachers do not work autonomously. Often coordination of instructional strategies across grade-level and up through grade levels is necessary to ensure adequate results on state and federal assessments. Teacher participation on standing decision teams is increasingly desired. Teachers are increasingly involved in decision-making about curriculum, textbooks, teaching methods, budget, and personnel (Mulford et al., 2001). Student needs, along with curricula content, drive the school instructional program. School leaders must consider grade-level mastery, language proficiency, literacy, learning disabilities, discipline issues, and socio-economic circumstances when scheduling students and delivering content.

Yanitski (1998) explored the perceptions of stakeholders in site-based decision-making (SBDM) with regard to the roles they played in the decision making process. Yanitski selected one elementary, one junior high, and one senior high school in an Alberta, Canada district as multiple sites for the qualitative study. A sample frame of 12 participants included a principal, two teachers, and the school council (site-based team) chairperson from each school. Data was derived from semi-structured interviews, which were taped and transcribed. The findings were that SBDM seemed to be a collaborative process among the various stakeholders. A few of the factors that impacted the process were the sharing of information, power distribution, policy constraints, political intervention, and concerns over the future roles of school-based councils.

Yanitski also found that legitimate stakeholders had a daily interaction with the school to improve student performance. The primary stakeholders considered legitimate to the school community were identified as students, staff, parents, and councils. The qualities of openness, sensitivity, and work ethic emerged as factors that make the decision making process more effective and direct.

Yanitski's study was valuable in defining the micro environment and examining the extent that each stakeholder defined and was defined by his/her role. This study provided insight into how SBDM operated within the school community. The meso and macro parts of the environment, however, were shown as a marginal factor, and it was taken for granted that the decisions made through SBDM held equal weight as other decision making entities. This study is unusual in the way the researcher explored, although in a limited way, the process of principals making sense of information. Aspects of Mezirow's learning theory could offer additional insight into the development of sense making. The generalization of this study to schools in the United States might be a limitation to Yanitski's study.

Beck and Murphy (1998) investigated one successful urban school during a year-long case study to examine the intricacies of how site-based management (SBM) worked. Educators viewed themselves as members of the community with which they interacted in supportive ways. All administrators, most teachers, and some parents willingly took responsibility for the culture and educational experiences at school. SBM facilitated the ability of administrators, teachers, and parents to gain access to information and have a role in providing input to shape decisions at the school. They found that that SBM is not just a structural change; it is a cultural change. SBM did not mean leaving local development on its own. To work, SBM must develop vibrant two-way interaction among local, regional and national personnel. The study was limited because

interaction among the environmental players in the creation of knowledge to enact reform was not a focus in this study. The study was conducted before NCLB and would be worthwhile to reproduce in the current educational environment. Also, the study was conducted at an elementary school and might not be generalized to a secondary school setting.

Meso environment.

The meso part of the educational environment influencing school members consists of the school, district, and parents among others factors such as the general community and business community. School community is defined as those who are not employed in or enrolled in the school with which they have a vested interest. These individuals may have direct authority over schools; they may have power to effect change; or they may have indirect influence outside of formal power structures (community and business leaders may tend to fill these roles).

Parents.

Parents construct a community group that has influence on the school and, therefore, create situations requiring decision making. Hoover-Dempsey and Sandler (1997) formulated a model of motivation that propels parent involvement and influence in the school. The model is based on a two-belief system: role construction for involvement and a sense of efficacy for helping the child succeed in school. The role construction concerns parental belief that they share a responsibility for their child's educational outcomes (1997). This belief often envelops the belief that schools should give preference to the needs of the child of the involved parent as well as to the views and perspectives of the parent (Lareau, 2003). Role construction is socially created. "It is created from parents' experiences over time with individuals and groups related

to education (Hoover-Dempsey, Walker et al., 2005). Invitations of involvement from others is important motivation for parental involvement because invitations suggest that parental involvement is welcomed and expected by the school and its members (Hoover-Dempsey, Walker et al., 2005). Bandura (1997) asserted that the sense of parental efficacy for aiding a child's success stems from the belief that parents make involvement decisions in part by the potential outcomes directly related to the level of involvement. Parents develop behavioral goals based on their perceived capabilities to influence school member's thoughts and actions (1997).

Although parental involvement is beneficial at all levels, parents are involved at higher rates in their children's education at the preschool and primary grades than at the secondary level (Cotton & Wikelund, 2001). According to Cotton and Wikelund, the type of parental involvement varies as students move through elementary, middle and high school. Some barriers to effective parental interaction are school size and distance from home, the sophisticated curriculum, the increased number of teachers a student has, student separation and independence as they age, and parental work responsibilities (2001).

School board-superintendent.

School district influence is exerted through the individual and collective actions of school boards and superintendents. Larson and Rader (2006) classified school boards and the superintendent's administration as functioning as a collective influence under the label of district. Local school boards are the largest body of elected officials in the United States, and the schools they represent have educated 90% of the current workforce in America (Goodman & Zimmerman, 2000). Smoley (1999) reported that superintendents and school boards believed that their reciprocal relationships were the most contentious aspect of their jobs. The complex

nature of the district governance requires effective communication between the board and the superintendent, but it goes beyond the exchange of information and becomes about the relationship (Kowalski & Keedy, 2005). Castallo and Narale (2005) examined the unhealthy relationship between the superintendent and the school board in the 4,700 student school district in Warwick Valley, New York. The researchers analyzed the relationship and worked with those involved to overcome the discord. The lack of open and honest sharing of concerns was the primary cause of the contentious relationship.

School boards are primarily responsible for formulating the district's vision and setting high standards for student achievement and positive climate (Campbell & Greene, 1994). Larson and Rader (2006) described the roles of the board as establishing and implementing policies and recommending changes, working with the community to develop a vision and goals, ensuring professional development opportunities for all district employees consistent with district goals, overseeing the organization and management of district daily operations, recommending and allocating necessary resources including staff, and preparing an annual budget that addresses district goals and meets the needs of all students. Fuhrman (2001) argued that the accountability movement has caused school boards to focus more time on student performance than on oversight, budgets, and facilities (Fuhrman, 2001).

A study of one school district by Opfer and Denmark (2001) found that in the area of school-based management, the school board members could define their roles and responsibilities. The members were familiar with the school district's organizational hierarchy and established protocol for addressing problems. In actuality, when a problem occurred at a school, they knew the protocol was to contact the superintendent; however, they did not because they justified that the problem would be handled faster if they addressed it directly.

The members justified other decisions to marginalize the superintendent when they wanted to directly inform principals of potential problems or when they were attempting to serve parents directly.

School boards have been criticized for micro-management, personal and political interest, not gaining knowledge about issues, and using extremes in decision making: acting too quickly or using delay tactics to maintain current policy (Danzberger, 1994). Smoley (1999) suggested that the reason school board members and the board as a whole are criticized is because of the lack of preparation members have for membership. It requires time on the job to learn to fulfill their roles and develop relationships with the superintendent (1999).

A study from the United Kingdom is unique in defining micro, meso, and macro-level actors in the field of education and exploring the roles they assume in policy discourse and curriculum formation. Jephcote and Davies (2004) examined the negotiation role meso-level actors invoke in the policy formation process between policy makers and the central government (the macro) and school-based workers (the micro). "The meso level is a disparate and changing group and identifying those who should 'speak' for it was not was not without difficulty" (p. 550). The researchers ultimately selected 15 participants who represented a range of sites (organizations) and people. Jephcote and Davies (2004) chose economic curriculum as a particular subject through which to examine the formation of curriculum. This was the vehicle to explore how school and subject curricula were defined and discern how definitions and knowledge were constructed and distributed. The representatives were identified by gender (12 male/three female), first name, and job title. Three had the title of *Education Manager*, two were *Senior Representative*, four were *Directors*, two were *Senior Figure*, two were *Senior Project*

Officer, one *National TVEI* (Technical Vocational Education Initiative) *Advisor,* and the last participant was *Senior HMI* (Her Majesty's Inspectors) *for Economics and Business Education.* A limit to the generalizability of the study would be matching these roles to corresponding personnel to roles in the United States.

Jephcote and Davies (2004) found that areas of conflict quickly developed. First, the focus was on economics education as an independent subject, leading to cross-curricular themes to be discarded or marginalized and reducing the exposure to the study of economics across other subjects. Second, no achievement targets, examinations, or standards to be reached were defined. The participants were concerned that non-statutory curriculum delivered outside of the mainstream curriculum would be dismissed. Third, only three participants had an official role in recontextualizing the economics filed. The others were working in pedagogic recontextualizing. A further complication was that those members who fought to keep economic curriculum tied to cross-curricular themes risked their careers if resources were consolidated in support of National Curriculum subjects, which the economic curriculum was not designed to be, and other priorities. The researchers also reported that the meso-level members were given a high degree of influence and control in the early stages of the project to promote economic understanding through a non-National Curriculum. Over time, the state intervened to take control of and define the objectives and, later, to set new priorities. "This raises questions about the balance between the power and control of the state to devise and implement policy and the extent to which at the macro, meso, and micro levels, policies can be recreated, or, in effect, subverted" (p. 560). Eventually, increased intervention by the central government at the macro level and the pressure on those involved in the official recontextualizing caused those meso-level members engaged in the

pedagogic recontextualization to give up the struggle to maintain their arguments. Tension among meso-level members became irreconcilable (Jephcote & Davies, 2004).

Goodson (1994) argued that curriculum is constructed and negotiated at various levels. The process of curriculum policy formation is complex and characterized by compromise and negotiation and renegotiation, which can cause contradictory and competing outcomes (equivocality).

Macro environment.

The macro-level contains the state, federal, and global influences. State education agencies provide the balance between federal accountability and district and school implementation (Institute for Educational Leadership, 2001). States take the leadership role for broad-gauged change, yet offer narrow rules, regulations, and monitoring policies. States, within the past decade, have had to handle new financing alternatives, oversee federal requirements, and transition to a reporting system for accountability. Historically, state and local governance "had been almost totally focused on inputs rather than outputs," mainly by allocating resources based on per student formulas rather than creating systems that incorporate bottom-up recommendations and by constructing policy for schools in the form of mandates (Usdan et al., 2001, p. 1).

In the current educational environment, states address the major educational policy challenges of improving teaching and learning, narrowing achievement gaps, guiding systemic reform, and promoting equity through finance (2001). In the spring of 2008, U.S. Secretary of Education Spellings outlined proposed new regulations to strengthen and clarify NCLB for states through the U.S. Department of Education web site (2008). According to Spellings, the proposal focused on improved accountability and transparency, uniform and disaggregated

graduation rates, and improved parent notification for special education services and school choice. States were required to report data from the Nation's Report Card along with their own test data. The proposal outlined the criteria states must meet to include individual student progress into the state's definition of Adequate Yearly Progress (AYP). Spellings also proposed the creation of a National Technical Advisory Council to ensure state standards and assessment are of the highest technical quality. Additionally, all states would use the same formula to calculate on-time graduation rates and drop-out rates. The data would be made public so educators and parents can compare the performance of every race and income level of students.

Federal influence is manifested through a variety of avenues other than the ubiquitous NCLB (2001), which drives the minimum accountability measures to which states, parents, districts, and schools respond. According to Cross (2004), the federal government through the Federal Communications Commission provided affordable internet access and widespread access to technology to almost all schools through the E-Rate fund. Early learning initiatives especially in the area of reading education is fostered through the Head Start program first enacted under the Economic Opportunity Act of 1964. Cross (2004) predicted that Head Start will move from the Health and Human Services Agency to the Department of Education, thus leading to new federal initiative concerning early learning. As of November 2010, it is still under the domain of the U.S. Department of Health and Human Services Administration.

Another still emerging area of federal influence is through high school reform. President Obama proposed identifying high schools with at 60% or lower graduation rate and deciding on investments to increase that number. He also proposed spending $100 million on the College Pathways program to promote a college readiness culture in high schools ("President Obama Announces," 2010). Almost all efforts have dealt with elementary schools.

The drop-out rates among Hispanics and African Americans are increasingly getting the attention of federal policymakers (Cross, 2004). Teacher education is another area influenced through federal policy. Cross stated that a main part of the debate in Washington, D.C. is over the ratio of content knowledge courses to teacher preparation courses should be required in formal preparation programs. Programs such as Teach for America and Troops to Teachers, which bring people into to classroom through nontraditional routes, have received federal support (2004). All of these initiatives and policies create changes that states and ultimately districts and schools may deal with as they are formulated into laws, policies, and mandates.

At the global level, U.S. participation in administering tests and reporting results for international assessments has increased since 1995. Increasingly, student performance is framed in global terms. In 1995 the Trends in International Mathematics and Science Study (TIMSS) began measuring the math and science knowledge and skills aligned with the curricula of 15 countries. Every four years findings are presented based on the performance of fourth and eighth-graders. Three of the studies were initiated since 2000. The Program for International Student Assessment (PISA) began in 2000, and is conducted every three years to measure the ability of 15-year-olds in 30 countries to apply in-depth reading, math, and science literacy to real world problems. The Progress in International Reading Literacy Study (PIRLS) study began in 2001, and is conducted every five years and assesses the reading literacy of fourth-graders in 19 countries. The Program for the International Assessment of Adult Competencies (PIAAC) will initially collect data in 2011 for those aged 16-65 in 23 countries to measure the competencies believed to underlie personal and societal success through literacy, numeracy, and problem-solving in a technological environment. The PIAAC study will be conducted every 10 years (National Center for International Statistics, 2009).

The three levels of the environment should be understood for the distinguishing characteristics of each and for the ways information and decisions are transferred between and among the micro, meso, and macro level. The micro level, for this study, was defined as the school members, children who attend classes and the adults who work in the building. The meso level contains the district central offices, parents, and other community members. The macro level encompasses the state, federal, and global structures and influences. Increasingly, the meso level relies on the micro level to implement mandatory programs, include parents in school decision processes, and produce quantitative data that can be reported to stakeholders and macro-level entities. Increasingly, micro-level performance results are reported from the macro realm and framed in terms of rankings against global educational systems. The most successful collaborative team members are those who are mindful of the interaction among the three levels.

Successful collaborative decision makers in schools engage in decision making that is more complex than following a process model. Although the current literature tends to be focused on the application of decision making procedures, *how* the decision making process is followed with consideration given to the micro, meso, and macro environmental influences is often non-existent or marginalized in the literature. Yet, the decision making process, as part of a broader negotiation of the environmental context, is integral to understanding the reality of collaborative decision making (Ball, 1994). The following studies consider decision-making within environmental constructs.

Interaction among environment levels.

Smylie et al. (1996) presented a more dynamic look at the meso environment's interaction with the micro environment. Through a five-year study in one Midwestern school

district, the researchers examined the outcomes of participative decision making through implementation of decision making, instructional improvement, and student learning in terms of three intermediate organizational variables – teacher autonomy, accountability, and professional learning.

The study was grounded in one specific contractual agreement between the board of education and the teachers' union that expanded the ability for teachers to make decisions in their schools and at the district level. The contract allowed the creation of teacher-lead school building councils that had authority to make decisions about school budget, work schedules, instruction, and student and staff assignments. The councils were to work with the principals to reach consensus through a process adopted by the district. Initially, the district provided training and technical support to develop participative decision-making capacity. The district administration worked to sustain the collaboration among the principals and teachers through monitoring and providing consultants.

The data were collected throughout the five year study. Surveys were presented at faculty meetings and by mail to the district's entire teaching staff during the first, third, and fifth years of the research. The return rate was 60% for 190 teachers the first year, 79% for 206 teachers the third year, and 82% for 211 teachers the fifth year. Individual school response mirrored the district-wide response except for three schools, which had response rates of less than 50%. Smylie et al. used a three-part data analysis procedure that found mean and standard deviation, computed two-tailed *t* tests of significance, performed correlational analyses to test relationships among variables, and analyzed observational data using constant comparative analysis. The outcome data were based on computing change scores for reading and math achievement from the Illinois Goal Assessment Program (IGAP) from 1990 and 1994. The

researchers accounted for the limitations of computing change scores for district-wide data and the fact that the aggregation of data produced a small sample size (seven schools) required using product-moment correlation coefficients.

Consistent with distributed leadership theory (Harris, 2004; Riordan, 2003) the researchers' found significant increases were shown in teachers' perceived accountability. Not consistent with theory was the significant decline in teachers' perceptions of individual autonomy. The decline in perceived autonomy can be explained by collegial controls and a collective autonomy superseding individual concerns. Mostly nonsignificant changes were shown in perceptions of professional development opportunities. Theoretical applications would expect opportunities to increase in a collective environment. Achievement in problem-solving, enthusiasm and responsibility for learning, and development of leadership skills showed improvement despite some between-school differences. Specific math and reading achievement was mixed. Some schools showed significant improvement while others showed declines.

Smylie et al. found teacher participation in decision making was an indicator of positive achievement scores. The schools that fostered the least participation showed the lowest scores; the schools with the highest nature of participatory decision making showed the most improved scores. Although the research included district input into the scope of decision-making from the building councils, the study did not show any interaction with the district once the decision situations were commenced. In general, when the accountability for decision making was supported at the meso level and embraced at the micro level, improvement in measurable outcomes was shown. Individual autonomy, however, decreased.

Another research study that examined micro-level teacher participatory decision making with some meso-level influence was a 1994 study conducted by Taylor and Bogotch. They

specifically examined the dimensions of teacher participation and student outcomes in an actively restructuring district of over 300,000 students in over 250 schools. The sample consisted of 33 schools (28 elementary and 5 high schools) with diverse student populations. The researchers used an established Bacharach, Bauer, and Shedd questionnaire and obtained a 39% response rate.

Taylor and Bogotch (1994) found that four dimensions of participation in decision making emerged using factor analysis. They were (1) associated technology, which are matters related to teachers and students but not concerned with direct classroom instruction (grading, discipline, teacher evaluations, for example); (2) traditional management issues such as budgeting, hiring, and scheduling; (3) instructional materials such as selecting textbooks and workbooks; and (4) core technology, which includes what to teach, how to teach, and course assignment load. When student outcomes and teacher satisfaction were examined through the dimensions, the relationships were weak. Teacher participation did not lead to significant changes in student achievement. Although the study was conducted in a restructuring district, teachers reported being less involved in decision making than they desired to be. This was partly explained by the actions of a new superintendent who took back some decision making authority and overruled previous micro-level decisions.

As with the Smylie et al. research (1996), the level at which accountability measures were placed influenced outcomes significantly. While teacher participation may promote systemic change, it does not necessarily guarantee better student outcomes. Mumby (1988) would characterize the negative teachers' experience as that of cultural deformation, where groups of competing interests are more typical in organizations than stable, integrated structures. The superintendent applied power that Mumby described as "both medium and outcome; it is

both enabling and constraining" (p. 63). The study did not identify existing decision streams and groups or where decision making actually occurred and which individuals gave input leading to decisive action. Research suggests that decisions do not only happen at the administrative level, and multiple groups tend to exist throughout a school.

Marks and Nance (2007) grouped micro, meso, and macro influences under the category of accountability contexts to investigate how the contexts of states, school boards, districts, school site councils, parent associations and teachers affected the principal's ability to influence managerial and instructional decisions in schools. Survey responses were collected from 8,524 principals at all grade levels. In this nonexperimental study, principals responded to questions about their influence and the influence of other policy-making agencies on decisions concerning instruction and management at the building level. The researchers found that the accountability contexts differentially affected principals' influence based on the extent of state and regional control over schools. Teachers' participation in decision making was positively related to the influence principals had over instruction and management domains. The more influence a principal had, the more participation teachers had in decision making.

Although Marks and Nance presented a breadth of insight into the relationship between accountability sources and leader influence by surveying a large sample, they did not show how school leaders identified influences and negotiated conflict, as Mezirow (1991) suggested. The study did subsume micro, meso, and macro influences under the banner of accountability contexts and provided a manageable focus. The important benefit of this study was the description of the second set of hierarchical linear modeling (HLM), which evaluated the power of each identified environmental policy actor as it impacted the perceived power of decision-making in the school. The quantitative study could have benefited from the flexibility a

qualitative approach offers to pursue the dynamic of school group decision-making through the growth of the decision makers. Marks and Nance described which contexts over which school decision-groups can most exert influence; however, the contexts were situational and ignored how groups made sense of the contexts through a decision making process. Many of the contexts examined derived from the pursuit of school reform.

The relationship between data and the environment.

The relationship between state testing data and the bureaucratic levels of education was examined by Smith and Larimer (2004). Using conflicting theories about the impact that bureaucracy has in shaping test data, the researchers asserted that a relationship exists between bureaucracy and school performance, but uncertainty lies in pinpointing the causal forces that produce the correlation. Their study sought to produce empirical data to address previous theoretical suppositions about bureaucracy and school performance relationships. Using an economies of scale approach, Smith and Larimer explored whether schools produced less of certain outputs as they produced more of other outputs. In this case they explored whether the levels of bureaucracies in addressing increased attendance and lower drop-out rates would lead to lower test scores. The researchers pooled data from 350 multiracial Texas school districts with a minimum student population of 1,000.

The findings suggested that the level of bureaucracy was negatively associated with school test performance, yet there existed a positive statistical relationship between the percentage of central office personnel and school administrators and student attendance and drop-out rates. Top-heavy bureaucracies increased attendance, reduced drop-outs, *and* reduced test scores according to Smith and Larimer. These seemingly paradoxical outcomes were explained by the level of ambiguity related to problem identification and management.

Attendance and drop-out rates were able to be managed because simple record keeping and historical data aided in student identification. Support personnel and support programs, which central office administrators can fund, addressed attendance and drop-out issues.

The study is unusual because it identified environmental influences and created empirically-based data about the significance of external and internal factors on student outputs (attendance, drop-out, test scores). Overall, the study contended that current literature presents an incomplete view of the theoretical and empirical relationship between bureaucracy and school performance. Existing studies do not account for the need for principals to produce multiple outputs from multiple environmental inputs. The model used by Smith and Larimer did present a potential problem with regard to valid methodology. Using pooled data can create a violation of base assumptions of regression. The researchers did employ alternate estimation techniques to compensate. The study was limited by the exclusion of other environmental influences beyond the school and the district. The interaction of the bureaucratic members was also absent, thus limiting the view of how information was transferred between and among the players.

Davidson and Dell (2003) studied the implementation of the Accelerated Schools Project (ASP) initiative to foster the active involvement in school decision making of every teacher. A case study method that also captured quantitative data was used to examine three rural schools that were involved with ASP for three to eight years. The researchers found that an increase in the teacher's role in school decision making improved classroom instruction. The teachers used more kinesthetic activities and demonstrated more innovation in instructional practices. Student outcomes exceeded performance goals as outlined by the School Accountability Report Card.

Davidson and Dell's research supports the idea that a clear, focused engagement with an environmental influence (in this case the ASP program) can positively impact the school

decision making process. Yet unanswered was the question of how other environmental influences were negotiated by the school decision group members and how decision makers negotiated conflict.

A study conducted by the Southern Regional Education Board (1997) also examined the implementation of a meso-level based program through a high school's decision making structure. Working with a new high school that opened in 1992, the SREB helped develop a decision making council through the High School's That Work program. The purpose was to increase the ability of teachers to be directly involved in the school's decision making process. The researchers found that teacher involvement in decision making through the council was one factor among others that led to increased student performance.

The SREB research demonstrated how powerful environmental influences can be on school decision making. As with the Davidson and Dell study, the SREB study did not address how the teachers used the input through a learning process to participate in the decision making process and how other micro, meso, and/or macro factors were negotiated to allow the specific initiative to flourish.

DeBard and Kubrow (2002) surveyed 203 teachers, 33 support and administrative staff, 1,167 secondary students, and 884 elementary students in one school district in Ohio in response to state policy that mandated standardized testing in order to determine if external pressure and comparative test scores increased outcomes and lead to modified behaviors from the members of a school. This quantitative study used an instrument created by the researchers and included transcribed data from 27 different focus groups. The 40-item survey alternated positive and negative questions to gauge perceptions of students at elementary and secondary levels, teachers

at the elementary and secondary levels, administrators from each school in the district, and a group of parents and community members.

The survey responses reflected that over 96% of teachers agreed that their professional environment had been impacted by the tests because the state imposed it on the district. Over 92% of teachers believed the mandated tests negatively affected community relations as it increased competition among schools. Ninety-four percent of teachers agreed that the state testing policy positively impacted the alignment of curriculum with proficiencies; however, over 89% thought this led negatively to teaching to the test. Seventy-three percent of administrators felt that proficiency testing directed from the district increased the stress levels in the professional environment without leading to increased student performance. “External political pressure can mandate compliance, but the challenge of learning still rests on the internal commitment of those who would educate and those who would be educated” (Debard & Kubrow, 2002, p. 389). Districts were encouraged to conduct their own research to examine the purpose for assessments (2002). The study was strengthened by the sample size but was limited in its focus on one environmental influence that was not contextualized in the greater environment. A follow-up study to examine the effect of district performance pressures on student achievement would be helpful.

Spillane (1999) examined the relationship between the implementation of standards and local instructional decision making in nine school districts in Michigan. Through a case-study approach, he interviewed 165 state and local policy makers. Spillane found that state standards provided the impetus to create or revise school policy related to instruction. He found three obstacles that limited the policy maker’s effectiveness in making content and pedagogical changes. The state documents were not effective in helping local policy makers understand

reform goals; enriched descriptions of reform ideas were not enough to represent the reform ideas through policy creation; and the tensions among conflicting state policy instruments undermined the efficacy of standards.

In terms of decision-making, the study identified a system that was still adjusting to the disorientating dilemma associated with state standards policy. Through an examination of state curricular frameworks, alignment of state instructional policies, professional development, and mechanisms that hold schools accountable, Spillane described "ambiguous and inconsistent policy signals that lack authority facilitate local inattention and local remaking of policy to fit with local agendas and interests" (p. 548). Standards-based reform, however, benefit from "more coherent policy signals that hold schools accountable for student performance by providing tangible incentives" (548).

Data-driven decision-making (DDDM) is an informational delivery system integral to collaborative decision-making in the current environment. The use of data to drive decision-making has permeated education at the federal institutional level. Districts and states examine data in order to provide exemplars to other schools as a learning model. State departments also provide better information to policy-making bodies at the state level and ultimately at the federal and national levels (Kohn, 2000). The main reason for the dependence is because of the impact data has made. Schools analyze data from student assessments and student information systems to adjust curriculum and classroom practices.

Kohn (2000) argued that acceptable data is viewed as that which serves as quantitative measures of outcomes. His concern was that standardized tests will become the only measurements of student achievement, thus producing micro views of student performance based on limited perspectives. Ideally, principals will link statistics with narratives to create a data

dialogue in efforts to engage the process of school improvement through data-driven decision-making (Wellman & Lipton, 2004).

Since No Child Left Behind Act (2001), gleaming insight into the performance of students whose characteristics are disaggregated to profile race, sex, ethnicity, English language proficiency, and special educational needs, requires states, districts, and schools to compile a great deal of information. As a result, the reliance on effective attainment and understanding information and the transformation of information into usable knowledge for the school is paramount to decision making.

Recognizing the push for schools to make data-driven decisions, Hoff (2006) utilized The Editorial Projects in Education (EPE) Research Center for *Technology Counts 2006 to* scan the 50 states and the District of Columbia to determine what and how much statistics and analytic tools teachers, administrators, and policymakers were given to transform data into useful instructional plans. The EPE is a non-profit organization that publishes *Education Week* and *Digital Directions* among other journals and online periodicals related to education. The EPE's mission is to raise the level of understanding and awareness about American education among educators and the public. Hoff compiled survey results conducted by the National Center for Educational Accountability (2003) in addition to the results of his survey.

The most often mentioned role for states, according to Hoff, was to provide more systems that supported the capacity for school leaders to effectively use data. Another important state role was to provide principals with technical assistance and training on the use of analysis tools.

Hoff (2006) reported that states held districts, through school leaders, accountable to utilize data from high-stakes tests and performance data to directly impact instruction and target

student populations that were deemed in most need. The findings of the survey suggest that much progress has been made since the inception of the No Child Left Behind Act (2001), but much is left to do to build systems that enable school leaders to reliably use data to guide decision making. Hoff found that two-thirds of the states (34) provided schools with interactive databases through which they can analyze data at the school level; only 20 states, however, had systems that allow comparisons to be made between and among schools with similar characteristics. Fewer than half the states (24) provided principals with web-based or centralized databases that provided demographic information about students including their participation in special education programs, programs for English-language learners, and their participation in the free and reduced-price meals program. Twenty-eight states and the District of Columbia provided access to a system providing current state-assessment results. Twenty-seven states included information about student performance longitudinally. Forty-four states and the District of Columbia give principals the tools to download files from a statewide system; however, only six states provided the tools for principals to upload school data into the state system.

Hoff (2006) found that the information systems do not adequately address the use of data to make staffing choices, to choose staff development initiatives, or to evaluate programs to impact selection and removal of programs and initiatives. With the investment in empirical data collection services and devices, researchers question the political pressures placed on schools to utilize those resources to render and justify choices. His study is commendable for the breath of the data and the triangulation of data through the use of multiple research organizations. Hoff's study, however, exemplifies the idea of data-driven decision making focusing on the accumulation of data rather than synthesizing data and engaging in what Mezirow called instrumental learning (environmental control) and communicative meaning (generating

understanding). There is no evidence of active knowledge construction from principals engaging with meso or macro influences.

In a study linking data and learning in New York City schools, Brunner et al. (2005) used a mix of qualitative and quantitative methodologies structured into three phases to understand how the Grow Network, which organized raw test data and aligned it with New York State standards, was used by district and school administrators to inform decision making. Phase 1 consisted of structured interviews with 47 central office administrators. Phase 2 utilized ethnographic research in 15 schools across New York City to conduct semi-structured and open-ended interviews with 45 principals, assistant principals, and teachers. Phase 3 involved developing and administering surveys across the entire New York City public school system: one for teachers and one for administrators. In the course of the research, a new chancellor and deputy were appointed and the previous 32 school districts were restructured into 10 regions. The new leadership changed the accountability resource from the Grow Reports to The Princeton Review, which provided teachers and administrators with test results based on three successive school-year administrations. The researchers noted that although the administrators and teachers still had access to the Grow Reports, they were under the impression that the priority was to use The Princeton Review.

Meso-level influences radically changed the system used to collect and interpret data, and the ability and process principals needed to harness and understand the information was not addressed. Mezirow would call this a disorientating dilemma, which would necessitate engagement in the steps of the learning theory (figure 1) to develop competence using the new accountability system. This study provided insight into the rapid change associated with public education and the extent of external influence on school practice.

Strifer and Schuman (2005) addressed the problem of school leaders in using the stores of data already collected to analyze the effectiveness of instructional programs on improving student achievement. “Traditional analytics can neither easily nor systematically handle the complexities of school data to address” the questions school leaders have about “achievement, adequate yearly progress (AYP), and interventions that work” (pg. 281-282). To address the problem, they applied data-mining techniques, defined as a process beyond statistics to identify problems, gather and manipulate data, prediction modeling, and output display leading to decision making. Using results from the Gates-MacGinitie test for cohorts of seventh-graders in New England from 1998-2003, Strifer and Schuman sought to determine the indicators that served as the best predictors of reading comprehension success.

The process the researchers undertook aligned to Mezirow’s transformation theory with the recognition that not all data was coded the same way, competence needed to be developed, and new perspectives needed to be formed. The score types addressed were discrete, ordinal, range test data, time variables, and teacher sequencing, thus requiring substantial data transformation. Although different traditional tests could have been run to handle the complexity, doing so would negate the “exploratory data analysis, in which there is not an a priori set of hypotheses about how data variables are related” (pg. 285). After substituting predicted values for missing data points, the researchers set up nodes to create streams of data through SPSS Clementine computing system. Once independent and dependent variables were assigned, 24 independent variables emerged as important across the three cohorts. Each cohort retained variables that seemed particularly important. Grade 4 was important for all cohorts; however, science in Grade 3 was particularly important for Cohort 2. District administrators responded by suggesting resources to support selected curriculum areas.

Not only were decisions made from the district office, but those decision makers did not have a role in the data analysis process. They were given an output derived from a highly complex method of selecting and manipulating data. The study did not mention school principals having any role in the process of generating knowledge from data. The responsibility for domain knowledge, defined as those who have "thorough understanding of how the data are collected and stored, and possess at least a general knowledge of the analytical methodologies being used to produce the information" (pg. 285), was in the hands of technology specialists outside of the school system.

The implication of this study was that schools produced vast stores of data, and data analysis could yield insight into the effectiveness of school-based instructional programs. The data were rendered inaccessible to the school leaders, who did not have the technical capacity to understand them and then use them. The adults in the school were challenged to develop skills and gain knowledge to increase their effectiveness. Data mining is a powerful way to respond to rational data in a sophisticated way; however, it requires specialized knowledge most school administrators do not possess.

Summary.

The literature provided considerable insight into the dynamic interaction among parts of the meso and, to a lesser degree, the macro influences in the educational environment. Very few studies included an examination of how school decision makers actively identify or define environmental influences. The literature appeared to assume that influences are known constants that impact schools in consistent ways with little interaction among the players outside the micro level. In particular, decision-groups were not studied under the consideration of the relative

power of meso and macro influences, nor were they shown negotiating or contesting inputs by reversing the flow of information outward from the school.

It is valuable, therefore, for a research study to examine multiple decision groups in a school. In reality, teachers and administrators often share information through vertical and horizontal teams. Using observations and interviews to explore how environmental influences are accessed, managed, and used or ignored across multiple data paths could show where the negotiation areas among the micro, meso, and macro levels occur and among whom it occurs.

Environmental influences, especially the non-micro ones, tend to be treated in the literature as bearers of data or facilitators of relationships that present problems to the school for the principal and/or site-based decision-making councils to respond to by activating a decision-making process. When the micro, meso, and macro environments are a focus, such as with the Southern Regional Education Board (1997) and the Davidson and Dell (2003) studies, they tend to be isolated and separated from the whole of the educational environment. In addition, when micro-efforts among principals and teachers to foster shared leadership and collaborative decision making existed, the efforts were increasingly complicated by district initiatives to develop leadership and collaboration as well (Firestone & Martinez, 2007).

Mezirow defined 15 frames of references that are used to change fundamental views of the world. It is not enough to simply "provide information through new delivery systems" (Marsick, 1998, p. 125). Mezirow's theory recognized the need to build capacity to see the whole environment more contextually and critically. During decision making, individuals must uncover assumptions, values, and beliefs to see how their actions are guided by their views in order to see the points of view that shape a situation (1997). Collaborative decision making is more than "adoption of techniques or styles of thinking." It is situational staging that are "deep organizing

templates for experience" influencing what is taken in through the senses and how it is interpreted (Marshall & Tucker, 1998, p. 125).

Summary.

The literature offered insight into the relationship between collaborative decision making and teacher empowerment. Teachers, who perceived that they were contributors to the school decision making processes, were more willing to participate (Marks & Louis, 1997). Literature suggested that teacher participation in collaborative settings does contribute to increased student achievement, but not enough studies exist that explore the relationship between teacher leadership and student performance (Conway & Calzi, 1996). In addition, there were situations where the more school leaders expressed encouragement and offered opportunity for teachers to participate in decision making, the less teachers felt the need to participate. The research did not fully explore the dissemination of information and the creation of knowledge as it was used in developing the capacity and competency to effectively engage in the decision-making process at the school level.

For the most part, knowledge attainment was subsumed within the shared decision-making process and not treated as a separate, integral part of the process (Duke et al., 1981). As with the literature in the area of educational environment, studies about group decision-making treated the act of collecting information and employing it at the school as a less than dynamic process focused more on the process of gaining involvement from stakeholders in decision-making processes (Hall, 1987; Lam & punch, 2001). The necessary consideration of the nature of knowledge attainment, the complexity of environmental factor influence, and the autonomy of the individual members of the group should be considered (Mezirow, 2000).

The interaction among theories of communication and power are important for this study as it relates to collaborative decision making and the individual's role in negotiating the environment as a transformative event. Habermas (1984) emphasized planning as a means for democratic, wide-spread public participation. The reflective planner should replace the technical experts and privileged bureaucrats to share information and encourage debate rather than the exercise of power (Argyris & Schon, 1974; Lauria & Soll, 1996; Wilson, 1997). Not only is the process of enacting policy important, the "discursive quality of the full processes of deliberation" leading to policy is just as important (White, 1995, p. 12). Habermas prompted the policy maker to foster political interaction rather than focus on the content of policy proposals. The implication is that power is available to those who have access and control of the decision making process. The school leaders may have been encouraged to be involved in decision making but with no power to prompt the necessary discourse. Parents are stakeholders, but they may only have influence when allowed access to school decision bodies. Flyvbjerg (1999) would argue that power determines reality. Rationality is used as a strategic alignment to shape that reality and forge policy decisions. Mumby (1988) would characterize the negative parent experience as that of cultural deformation. Multiple groups compete, but the more powerful ones impact decisions. It is import, therefore, that decision makers engage in a process that encourages an exploration of power structures to understand what opportunities, constraints, and oppressive barriers exist.

Studies tend to group all stakeholders in the educational pipeline together rather than distinguishing among micro, meso, and macro stakeholders. By default, literature that considered the school decision-making authority through site-based leadership did not consider the role of the decision makers to negotiate contested meaning as a way of mitigating the micro, meso, and

macro parts of the environment as Mezirow (1991) suggests. The result is that the majority of studies concentrate on decisions guided by meso and macro influences while marginalizing the multitude of decision makers within the school. Studies tend to take a Jungian position of simplistic decision-making where an input caused a respondent to react to the input in a linear fashion and render a decision. In contrast, Mezirow (1991) provided a model that can be used to critique existing studies as well as inform current research in an effort to address existing gaps in literature.

Conclusion

Mezirow stated that as work becomes more abstract, understanding and manipulating information rather than simply acquiring it is vital. “New forms of skill and knowledge are required” (1997, p. 8). Workers must be able to adapt to changing employment conditions, use critical judgment, and flexibly engage in “effective collaborative decision making” (p. 8). He added that there exists an “egregious assumption that acquisition of knowledge or attainment of competencies” automatically generate the understanding and skills needed to develop the learning needed to make effective decisions (p. 9). Becoming critically reflective about the assumptions of ourselves and others is fundamental to effective collaborative problem solving (Mezirow, 2000).

Decision-making as a process includes but does not subsume the critical actions group members take to identify and define environmental influences. Nor does it subsume how group members seek out, make meaning from, and use information to create new knowledge necessary to implement the changes decisions invoke. Environmental influence, decision making, and knowledge attainment are not assumed to be known and constant factors, whose influence is predictable or equally balanced or equally out of balance. For these reasons, a traditional

decision making model may not offer the flexibility to filter the environmental inputs as forces and influences in school-based decision making.

In general, schools develop goals as a response to a variety of influences. Effective schools recognize the instructional necessities required to increase student achievement. With student success as a primary goal, schools strive to promote effective programs to their students and remain compliant with higher mandates. Constant awareness and learning on the part of the adults in the school is required to recognize the many influences and biases that exists in the educational environment and develop the capacity to implement effective strategies.

Adult learning theory is concerned with reflective practice that emancipates the individual by allowing the thinker to recognize pseudo-communication, bias, and manipulation in the environment. For this study, adult learning theory served as the decision making model to analyze how individuals make sense of goals and information from the environment. Individuals are autonomous thinkers who transfer information and knowledge across multiple groups through multitudes of traditional roles. Groups are part of the environment, and Groupthink (Janis, 1972) is prevalent in schools. This does not, however, de-value the role the individual has in working to achieve a common goal. Individuals operate as part of a multi-layered organization to make sense, understand, and negotiate the influences that impact decision making.

Mezirow's Transformation Adult Learning Theory, as a decision making model, provides the structure to situate individual school leaders as thinkers and learners. School leaders are decision makers, who are sometimes bounded by environmental influences including group think. Even faced with directives, individuals can use reflective practice to sustain an emancipatory state when they recognize assumptions and biases that shape information. In a reflective state, individuals can be committed to a common goal while maintaining integrity to

their own values and beliefs. Group think is not an inherently negative organizational quality. Adult learning theory is a vehicle that allows the individual to understand his/her response to group thinking about understanding his/her own thinking.

In Chapter 3, the hermeneutic phenomenological methodology is discussed as the approach to explore individual decision making in collaborative groups. Mezirow's Adult Transformational Learning Theory is the foundation guiding the interview protocol by which decision makers will reveal their experiences as learners, negotiators, and decision makers. Combining the text rich descriptions offered through phenomenology, the insight provided through Mezirow's learning theory, and a school site where decision makers function in and across multiple groups should provide additional contribution to the literature about school-based decision making.

CHAPTER 3: METHODS

Epistemology and Theoretical Perspective

The epistemological framework for this study is constructed around hermeneutic phenomenology stemming from Martin Heidegger's *Sein und Zeit*, which views human existence as a constant state of interpretation (Macann, 1993). The roots of phenomenology can be traced to the mid-1890s as descriptive phenomenology, designed to prevent the study of logic from being absorbed by empirical psychology (Macann, 1993). Hermeneutic phenomenology includes issues developed during the first three to six decades of the 20th century beginning with Husserl's *Logische Untersuchungen* in 1900, which reflected interest in language, perception, and re-presentation (expectation, imagination, and memory) and sought to describe how ideal objects can be made known. Realistic phenomenology, which flourished during the 1920s, emphasized the search for universal essences of human actions and motives (Macann, 1993). Constitutive phenomenology focused on the phenomenological method, which questioned the acceptance of conscious life as existing in the world to secure an intersubjective foundation for the world. The other tradition that helps comprise hermeneutic phenomenology is existential phenomenology, which analyzes human beings as a means of understanding the nature of existence (Heidegger, 1927)**.** Hermeneutic phenomenology added an emphasis on the method of interpretation. At the core of phenomenology is the concept of intentionality, which is the notion that each conscious act is directed at an object. Therefore, actions have meaning and can be interpreted (Sokolowski, 2000). Hence, hermeneutic phenomenology is a descriptive (phenomenological) methodology that is attentive to how things appear. It contains structures to let things speak for themselves. It is an interpretive (hermeneutic) methodology because it claims that there are no such things us uninterpreted phenomena. The implied contradiction may be resolved if one acknowledges that

the (phenomenological) "facts" of lived experience are always already meaningfully (hermeneutically) experienced. Moreover, even the "facts" of lived experience need to be captured in language and this is inevitably an interpretive process.

The theoretical perspective which informs and shapes this research is derived from Mezirow's transformational learning theory. Mezirow (1991) agreed that decision making is distorted by any learning resulting from past experiences. Mezirow suggested using critical reflection, which values synthesis over forethought. In the complex, multiple stakeholders driven environment in schools today, Mezirow's theory involved the analysis of psycho-cultural processes of decision making as it is transformed through reflection and rational discourse (1995). Becoming critically aware of how we engage influencing forces that "have come to constrain the way we perceive, understand, and feel about our world," and "reformulating these assumptions to permit a more inclusive, discriminating, permeable, and integrative perspective" leads to making decisions and acting on the new understanding (Mezirow, 1981, p.11). He saw knowledge as a process that was "understood as a continuous effort to negotiate contested meanings" (2000, p.3). The theory starts with the notion of contested meaning and suggests phases to render understanding such as gaining awareness of context, ordering meaning, engaging in discourse, critically reflecting, and using reflective judgment to take action (2000). This way of making meaning is consistent with hermeneutic phenomenology in that both require individual participants to identify the lived experience and articulate that experience in a meaningful way.

Coupled with Mezirow's process-driven pursuit of understanding as a path to decision making, this study categorizes four ways knowledge is contextualized as input for school decision-groups to construct understanding from. Knowledge-based views recognize knowledge

as multidimensional. Polanyi (1966) categorized knowledge in terms of explicit or tacit, individual or collective, and contextual or common. The tacit, collective, and contextual knowledge is difficult to create and transfer (Barney, 1991).

In terms of knowledge, the organizational environment exhibits the attributes of complexity, uncertainty, ambiguity, and equivocality (Zack, 1998). Complexity is a large number of parts that interact in a nonsimple way (1998). This is not to suggest that complex situations are unpredictable or vague; variables may exist that are too large to easily process and have many factors intertwined in performance. Uncertainty is defined as the lack of enough information or the lack of predictability to perform a task (Galbraith, 1973). Situations can be either completely determined, defined with known probabilities (risk), defined but containing unknown probabilities (traditional uncertainty), or undefined, which is complete uncertainty. This does not suggest a lack of understanding; it suggests a lack of knowledge about current or future situations or preferences. Ambiguity is the inability to understand events or make sense of them (Zack, 1998). Ambiguity can be surface, having interpretive knowledge but not being able to use it or use it incorrectly; or it can be deep, which is a complete lack of the ability to interpret events. This collapse of decision making involves people suddenly feeling that the world is no longer a rational, orderly system (Zack, 1998). Resolving surface ambiguity might require only a small addition of factual knowledge; deep ambiguity requires more than more fact-finding; usually cycles of interpretation, explanation, and socialization.

Equivocality is the positioning of multiple meanings for the same event, which individually are unambiguous; however, together they differ and may create conflict (Zack, 1998). Equivocality also describes situations where agreement exists on descriptive criteria, but disagreement exists on boundaries or application to specific situations (Zack, 1998).

Equivocality requires cycles of interpretation, discussion, and negotiation to create a definition of reality (Mintzberg, Raisinghani and Theoret, 1976). Overly restrictive or precise policies, rules, or procedures imposed on interpretation may disguise the contradiction, confusion, or diversity of views inherent in a situation (March, 1977). Hermeneutic phenomenology has the ability to interpret complexity, uncertainty, ambiguity, and equivocality because of its potential to generate "new understandings of complex multidimensional human phenomena (Ajjawi & Higgs, 2007). Hermeneutics adds the interpretive element to explicate meaning the participants may have difficulty articulating or even understanding as experiences emerge.

Identifying Phenomenology as a Method

Unlike quantitative approaches, qualitative measures report words instead of numbers (Creswell, 1998). This study did not begin with preconceived hypotheses about the results. Instead, the flexibility to pursue the participants' experiences in an open way allowed for the description of the process and the phenomena of people finding meaning in their experiences and the world in which they live (Glesne & Peshkin, 1992; Moustakes, 1990). According to Mezirow (1997), assertions may be established through quantitative methods. To examine the learning transformative process that leads to decision making, however, adults need to critically reflect about the "assumptions underlying intentions, values, beliefs, and feelings" (p. 6). Phenomenology, as a methodology, allowed for the systematic examination of aspects of experience that might be taken for granted (Pollio et al., 1997). To explore how decision group members described their experiences of engaging the educational environment, making meaning from information, and guiding individual and collaborative decision-making processes, phenomenology offered the advantage of explaining the nature and essence of events in a highly descriptive manner (Creswell, 1998; Moustakas, 1990). This study was mostly concerned with

describing decision group members conceptualizations of the world they inhabit, to study their point of view rather than study the objective nature of reality (Creswell, 1998; Gall, Gall, & Borg, 2003; Tuten, 2006). Phenomenology is used by researchers to understand the essence of shared experience (Fitzgerald, 2006). Husserl (1900/2001) described the purpose of phenomenology as the study of human occurrence without questioning why occurrences happen. The study of how occurrences are experienced as a way of understanding the structures of consciousness that shape how people formulate meaning from experiences is the intention of phenomenological methods (Smith, 2003)

Purpose

The purpose of this study was to explore how individual decision-makers make meaning through their membership in collaborative groups in a school given the influence of the multi-layered educational environment (micro, meso, and macro). Following the assumption that collaborative decision-making is the predominant model in schools, this study intended to increase the understanding of how the varied environmental factors exert influence on school decision-group *members* and to provide an examination of the school as a complex organization of decision-makers requiring the negotiation among factors to capture, create, and utilize knowledge.

Decision making is an essential school function that must satisfy organizational needs, and, thus, how decisions are made is a worthwhile consideration. This study intended to increase the awareness of how the varied environmental factors exert influence on a school decision-group and to provide an examination of the school as a complex organization of decision-makers requiring the negotiation among factors.

Research Questions

The following research questions guided this study on school collaborative decision making:

1. How do environmental influences (the people, policies, programs, and procedures) impact the factors individuals consider in a collaborative decision-making group?

1a. Which micro, meso, and macro inputs does a collaborative decision-making group member (school-based teacher and administrative leaders) rely upon during the decision-making process?

1b. How does a collaborative decision-making group member make sense of (operationalize) and utilize micro, meso, and macro aspects of the educational environment?

Participants

This study was conducted in one school in one school district. The research was approved by the district's research review board and The George Washington University's Institutional Review Board (IRB). Every elementary, middle, and high school had an equal chance of being part of the sample set. The population frame was all comprehensive schools from one urban school district in the Mid-Atlantic region of the U.S. The sample was chosen based on recommendations from central office administrators and principal willingness. Based on district approval, phone calls and e-mail messages were sent to four principals asking for their voluntary participation. The first response to the e-mail was from the principal of the school that became the research site. Next, contact was made with the principal who responded to the initial inquiry to answer any questions the principal might have and discuss the feasibility of conducting the study. She was willing to open the school to me and felt confident that most, if not all, of her staff would be willing to participate. The participants were divided into two groups: one group consisted of those who would be observed in team meetings; the other group consisted of those

who would be observed in team meeting and interviewed individually. To participate as part of the first group, each team member had to agree to be recorded with a digital audio recorder. In total, 35 teachers were invited to participate. Two members of the vertical team from the pilot study declined, which prohibited me from recording the team meeting and writing notes. All other team members volunteered for the study. The latter group consisted of the principal, assistant principal, the communication skills specialist, the instructional skills specialist, a special education teacher, and a classroom teacher. When viewed across team membership, the six participants who were interviewed fulfilled 11 roles as on at least three different teams. All six accepted the invitation to participate in this research study.

The chosen school had a history of national award-winning student results. Another compelling factor was that some teachers were assuming new leadership roles according to the principal, which is ideal for a study whose theoretical foundation questions the adult as an individual learner within group settings. The previous year, the principal decided to change the dynamic of the lead group by replacing some of the group leaders. They were given an opportunity to remain in the building in a different capacity or seek a voluntary transfer with the principal's assistance. The principal made it clear that a student-centered focus through a specific tiered intervention program would dominate school culture and personnel confidentiality was paramount. With this articulated, each teacher was asked for their buy-in.

Group and individual participant consent, access, and availability were the main considerations in site selection. The nature of the research made observing group interaction irrelevant if members had to be excused from the group for purposes of this study. In addition, the natural dynamic of the group would have been altered if members could not participate because of this research study.

Three collaborative groups were chosen to be studied: a lead team comprised of the principal, assistant principal, instructional specialists, special education teachers, and one classroom teacher; a vertical team comprised of teachers representing kindergarten through fifth-grade teams; and the third-grade team. The three groups collectively had over 20 members. Six staff members who served as members on teams and were leaders on at least one team were chosen to interview. Two administrators, one vertical team leader (also on Lead Team), one social studies vertical team leader (also on the 3rd-grade and Lead Teams), one special education teacher, one instructional specialist (also on the English vertical team) represented each job position found throughout all three teams studied. A more complete break-down of team make-up and personnel assignments within each team is given in Chapter 4.

A main consideration for all three groups and a direct influence on meeting agendas and decision making was the district and state assessments and testing schedule. Each of the core area leaders (English, math, social studies, and science) had assessment coordination responsibilities. English was responsible for nine assessments, math was responsible for five, social studies was responsible for four, and science was responsible for four assessments. The organizational chart shows the Lead Team, the vertical teams, and the grade-level teams that were included in the study (Figure 5).

The participants in a phenomenological study need to meet only a few criteria. They must have lived the experience being studied, in this case having actively participated in collaborative decision making in a school. Mintzberg (1975) described six coordination mechanisms through which individuals in a group participate: (a) informal communication between people conducting independent work; (b) one individual takes responsibility for supervising the work of others; (c) the work process becomes standardized; (d) the output is standardized, but individual actions are

not prescribed (e) skills and knowledge are standardized so each worker knows what to expect of others; (f) norms are standardized to establish common values and beliefs. The participants must also be able to describe the experience in an in-depth interview (Crestwell, 1998; Moustakas, 1994; Pollio et al., 1997; van Manen, 1990). Polkinghorne (1989) recommended six to twelve participants be included in the study to gain the diversity and redundancy needed to capture the experience adequately, essentially, to meet the point of saturation.

The proposal for this study described the intention to examine three groups of five to eight participants from each of three decision groups in one school. The three groups operated vertically from the administration/school leadership through content teams to grade level teams while simultaneously expanding horizontally to include all teachers in the building. The administrative/school leadership team was called the *Lead Team.* The Lead Team comprised the principal, assistant principal, a classroom teacher, two special education teachers, and four content area instructional specialists. The team was responsible for setting school-wide goals and formulating the agenda for vertical team meetings. The *Vertical Teams* were comprised of K-5th grade teachers, who represent a content area (English, math, science, and social studies). Elementary teachers teach all content areas to their students, thus the teams were formed out of logistical necessity and teacher interest. All teachers serve on a Vertical Team, which meet to discuss content-based strategies and instructional adjustments needed to meet Lead Team objectives. Each Vertical Team member carried the information and gained knowledge to the *Grade-Level Teams.* The K-5 grade levels met to articulate the shared goals learned during Vertical Team meetings as passed down from the Lead Team. Each member of a Grade-Level Team presented the content information from the Vertical Team with the overarching goal of gathering resources and implementing instructional strategies directly into the classrooms.

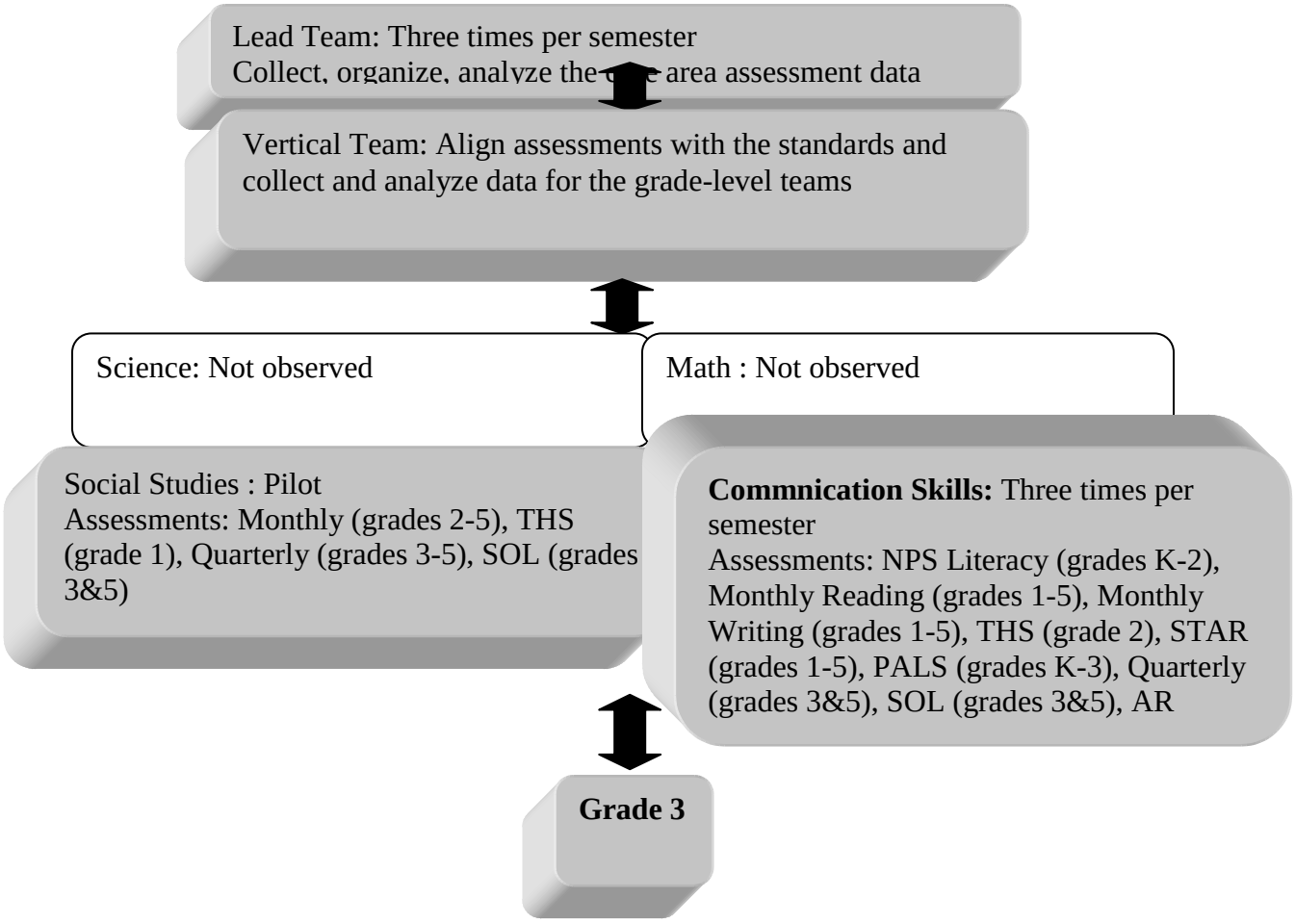

Figure 5: Research site organizational chart with observation dates and assessments by team

Research Procedures

In this phenomenological study concerning school decision-making and environmental influences, members of three collaborative groups consisting of administrators and teachers from a school were observed in action and interviewed in their school. Observation and semi-structured interviews were performed. The observations and interviews were audio recorded. Each participant was interviewed once a month for four months. For the first interview participants were asked the interview protocol for each team they served on. Hence, if the

classroom teacher served on all three teams, she was interviewed three times during the first contact. The number of interviews per participant, therefore, ranged from three interviews to nine interviews during a four month period. The research process included the following: (a) identifying the research topic and securing agreement to participate in the study, (b) collecting data, which included the bracketing interview and reflective memos conducted by the researcher before each contact with the participants, (c) the analysis of collected data, and (d) the final reporting of the findings in this document (chapters 4 and 5). Transcripts of the group observations and individual interviews were given to the participants for comments that could be directed to the researcher. All comments were captured in a reflective memo.

The Research Topic

This investigation is aimed at understanding decision makers' awareness of environmental influences that are considered when making collaborative decisions. "Coming to understand the essence of experience implies coming to understand the particular structural connections that form the experience" (Fitzgerald, 2006). In this research, it was known that decisions are made at the school level, yet, the structure of the decision making experience in the context of environmental influences utilizing environmental artifacts was not known. The topic for this research focused on the individuals as autonomous learners who functioned within a collaborative decision group or among two or more collaborative decision groups.

Research Rigor

Phenomenological research "must adhere to the tenets of its form to be taken seriously" (Fitzgerald, 2006, p. 61). The conceptual bases must be followed, samples must be carefully selected, and data must be interpreted openly after being collected through established strategies.

One overall goal of interpretive research is to produce a credible outcome. Credibility describes the faithfulness or trustworthiness of the description to the phenomena (Koch & Harrington, 1998). Rigor and credibility are linked tightly in qualitative research. Credibility will only be established if the process is rigorous. Ensuring "systematic methods of data collection and analysis, transparency in documenting these methods" and operating within the tenets of the research approach fosters research quality through rigor (Ajjawi & Higgs, 2007, p. 631). Rigor is enhanced in interpretive research through using strategies such as prolonged contact with the participants, multiple methods of collecting data, and voice recordings. (Lincoln & Guba, 2000).

To adhere to these research suggestions, data were collected over a four month period with a minimum of three group observations and at least two interview sessions with each individual participant. The researcher established rapport with each participant to gain their trust. Participants were comfortable discussing their views and learning experiences, which increased the depth of the data and added to the rigor of the research.

The richness of the data was increased through the collection of multiple sources of data. Observations, repeat interviews, field notes, and team documents were collected to reduce the bias in the data. Multiple decision-making teams were studied to offer different perspectives on the phenomenon of individual decision-making as part of collaborative groups.

Pilot Study

A pilot study was conducted in August and September of 2009 at the proposed research site (an urban elementary school). In August, a two hour organizational meeting was held with the Lead Team. The principal, assistant principal, the Instructional Skills Specialist, the math, the English/communications, the social studies, and the science vertical team leads were present. Special education representatives were not available because of a district training schedule

conflict. Although all members signed the information/consent form, the principal asked that the meeting not be audio recorded because significant personnel information was going to be discussed. All but the science team lead was in a new role this school year and confidentiality breaches were a problem during the 2008-09 school year. The principal emphasized that data-driven decision-making was the norm and that the school was 100% focused on student progress. She provided the forms that would be used throughout the school to capture data and standardized data collection. She explained what was not achieved last school year, the problems with getting vertical team information to grade-level teams, and how third-grade would be a focus because of dropping scores on monthly assessments. The principal explained that the school uses a tiered level of academic intervention. Tier I is a whole school approach. Then low performing students are selected for Tier II. Tier III is reserved for intensive academic recovery. Tiers II and III are designed as temporary interventions utilizing flexible grouping. The Lead Team meeting was scheduled for 9:30 AM on the first Friday of each month. Although the organizing meeting was not recorded, the principal arranged to be interviewed. After the participants were selected, each one of them also agreed to be interviewed and questioned about the initial meeting.

During the second week of the 2009-10 school year, an observation was scheduled with the social studies vertical team in accordance with the group protocol outlined for this study. The vertical team consists of classroom teachers from kindergarten through fifth grade. Every teacher in the school is assigned to one content area vertical team. Their responsibility is to collect, deliver, and explain information to their grade-level teammates when they meet. The vertical team meets bi-monthly and the grade-level meets weekly. The social studies vertical team is lead by a 3rd-grade classroom teacher, who also serves as a member of the grade-level and Lead

Team (to be discussed later in this chapter). Consent to record and study the team was obtained from all but two members who could not be contacted during the summer. After the vertical meeting began, the two members entered the room and decided not to participate. After about 10 minutes, the recorder was shut off and although the observation was allowed to continue, record keeping was discontinued. Another vertical team was solicited for the research study.

Before the meeting officially began, the team leader introduced me and allocated a few minutes for me to briefly explain my research, inform them of the confidentiality and that I would be recording the meeting as described in the Information/Consent and collect the signed Information/Consent forms. At that time, all team members who were present had their consent forms signed.

During the first 10 minutes that were captured as data for this study, the team leader reminded the team of a CIA (Central Intelligence Administration) Facebook site. The team leader said, “I sent this link to you guys, and I don’t know if any of you have actually opened it.” The site allows users to select a country and see its flag. One team member said that she was not sure when the e-mail was sent from the leader because she had not been getting all of e-mails. The team lead said she would send it again and advised the team member to Google CIA.Gov. The leader then transitioned to managerial tasks. She handed out folders to each member with a roster of the social studies’ vertical team membership and a calendar of events. In addition, she made available grade-appropriate activities, such as biographies of notable people for upper grades and coloring book activities for the lower grades, which were compiled by the Instructional Skills Specialist.

The leader then summarized how the team will handle the Famous American Wax Museum in November. She said it should be “like last year, where we have two rotations” so that

students are not “standing there for like two hours.” The leader then announced that the principal wanted the team to “go over” the school accountability plan “I guess she got notice that she has to have that sooner than she thought.” The leader handed out a summary of student results on the state Virginia Studies test and asked the team members to circle areas where “you think our school probably needs to work on.”

At this moment of the meeting, two veteran teachers entered the room. The lead explained to them the research I was doing and gave me the opportunity to ask for consent. Both declined to participate, and I ended the audio and written recording of the meeting. I spent a few additional minutes organizing the handouts I received and exited the room. The social studies team leader is a member of the Lead Team and the 3rd-grade team, and she is a participant in the research study; therefore, I decided to fold the individual interview with the team leader into the research study knowing that I could use information gleaned from the pilot study during the semi-structured interviewed.

To avoid a situation where participants opt out of the study after data collection has begun, it was learned from the pilot study to identify the leaders who would be interviewed and observed and ask them to gauge the receptiveness of their team members before the researcher met with them. The pilot study informed the research protocol in three additional areas as the participants, the schedule, and the interview protocol changed and evolved after the first interview series.

Data Collection

Scheduling.

The names of the three group leaders were attained by attending an organizational meeting in September of the 2009-10 school year. Contact was made with each team leader to

develop a schedule to meet with the group members to explain the study and solicit consent. Then group observations and individual interviews were scheduled. The observations were conducted during the regular school day. The interviews were conducted after school.

The schedule of group observations and individual interviews, including the pilot study, is reflected in Table 1.

Table 1: Day and month of data collection using group observation and individual interviews.

Lead Team		Vertical Team (CS)		Grade Team	
Group	Individual	Group	Individual	Group	Individual
Aug. 2009 (Pilot)	Principal: Sept. 2009 (Pilot) Oct. 2009 Nov. 2009 Feb. 2010 May 2010	Sept. 2009 (Pilot –Social Studies)	ISS: Oct. 2009 Nov. 2009 Feb. 2010 May 2010	Oct. 2009	3rd-grade teacher: Oct. 2009 Dec. 2009 Feb. 2010 May 2010
Oct. 2009	Asst. Principal: Oct. 2009 Feb. 2010 May 2010	October 2009	CSS: Oct. 2009 Nov. 2009 Feb. 2010 May 2010	Nov. 2009	SPED: Oct. 2009 Nov. 2009 Feb. 2010 May 2010
Nov. 2009	ISS: Sept. 2009 (Pilot) Oct. 2009 Nov. 2009 Feb. 2010 May 2010	Nov. 2009	3rd –grade Teacher: Oct. 2009 Dec. 2009 Feb. 2010 May 2010	Dec. 2009	
Dec. 2009	CSS: Oct. 2009 Nov. 2009 Feb. 2010 May 2010	Dec. 2009	SPED: Oct. 2009 Nov. 2009 Feb. 2010 May 2010		
May 2010	3rd-grade Teacher: Oct. 2009 Dec. 2009 Feb. 2010 May 2010	May 2010		May 2010	
	SPED: Oct. 2009 Nov. 2009 Feb. 2010 May 2010				

Note: The following abbreviations are used in *Table 1*: ISS = Instructional Skills Specialist; CSS=communication Skills Specialist; SPED= Special Education Teacher.

The bracketing interview.

Prior to observing group interaction and interviewing participants a bracketing interview was done. Bracketing, called “epoche” by Husserl, is the suspension of all judgments about what is real until a more certain basis emerges from the research (Creswell, 1998; Stewart & Mickunas, 1990). Phenomenologists tend to agree that it is impossible to completely bracket**.** Without bracketing and reduction, however, personal bias can easily influence findings.

For this study, bracketing consisted of conducting a self-interview to expose my preconceived notion about decision-making and environmental influences. The interview was recorded using the same digital recorder and the same protocol established for the study participants. The recording was transcribed, and the bracketing data was analyzed using the same procedure used for participant data. Having self-awareness and knowledge of the themes that emerged and were identified is protection against the researcher unwittingly imposing beliefs about collaboration, decision making, or environmental influences while interviewing the participants. Pollio et al. (1997) described the purpose of bracketing as a process to make researchers more aware of their presuppositions about the studied phenomenon and to become sensitized to any influence on the participants and on the interpretation of the interview data. Bracketing is not intended to make the researcher an objective reporter (1997).

Reflective memo.

In addition to the bracketing interview conducted before the observations and participant interviews, I conducted a self-reflective memo after each contact with participants in the group and individual settings. The memo contained descriptions of the protocol for arranging the school contact, descriptions of the setting, and any relevant comments or experiences related to

decision making and group participation. I also described how I thought the observation and interviews went, as well as provided a summary of what happened before referring to notes or recordings.

The phenomenological interview.

Pollio et al. (1997) described the interview as the most powerful procedure for obtaining thick and systematic descriptions of an experience. It is used as a means for gathering the narratives of lived experiences. The interview also is the vehicle by which a conversational relationship about the meaning of an experience with the participant is developed (Ajjawi and Higgs, 2007). According to van Manen (1990), phenomenology involves the description of an experience before it is conceptualized, categorized, and reflected upon. It allows participants to share their stories in their own words.

Within phenomenological research is phenomenological reduction. Reduction is also used in data analysis to help isolate themes into meaning units. Fitzgerald (2006) described reduction as a phase where attention shifts from the objective existence of events in the experienced world to a focus on an incident "as it exists in the consciousness of the participant experiencing the event in the reflective act of describing the incident" (p. 44).

Semi-structured interviews were conducted for this study because they provide the benefit of both structured and unstructured interviews. The semi-structured interview allows participants the freedom to narrate their experiences without being tied down to specific answers (Morse & Field, 1995). Unlike with unstructured interviews, the semi-structured interview allows answers to be compared across interviews through some standard questions (Minichiello et al., 1999). An initial question framed as a request to tell about a recent collaborative decision the participant was involved in began the probe. Structured questions and tailored follow-up

questions individualized the interview process as a way to elicit more detailed and elaborate descriptions. The participant was allowed to elaborate until both the interviewer and the interviewee agreed that understanding was achieved and that the experience was communicated as clearly as possible (Fitzgerald, 2006; Pollio et al., 2003). The interview protocol is included in Appendix C. Follow-up questions not found in the original protocol are highlighted in the interview transcripts.

All interviews were recorded using a digital audio-recording device. The interviews ended when the structured questions were answered and the participant was content that he/she adequately described the individual and group decision-making experience. The interviewer summarized an understanding of the responses in an attempt to clarify misunderstandings or add elaboration to enrich the descriptions. After the interview, participants were asked to provide demographic data including age, education level, and years in the classroom. Only the investigator knew the identities of the participants. The report of findings listed the participants by their job titles. Participants were reassured of the procedures to protect human subjects.

The participants became less conscious of the recorder and more candid with their responses usually during the first interview. These were school leaders who said later that they were used to being asked questions from many people outside of the school as a result of the school's success. Two of the participants jokingly called the interview their "therapy sessions" as a familiarity developed between the participants and me. All of the participants became less formal as the interview became less of a question and answer session and more of a conversation.

The schedule for the observation and interviews became routine. The Lead Team always met on the first Friday of each month; the selected Vertical Team met the next Wednesday, and

the 3rd-Grade Team met twice during the month, usually the week after the Vertical Team and one or two weeks later before the next Lead Team meeting. As the researcher, I was able to choose observing the groups either to capture meetings closely following the Lead Team meeting, these were more data analysis sessions, or meetings that occurred later in the month that focused on assessing the implementation of strategies.

The interview protocol changed immediately after the first series of interviews. During the research study, the interview questions evolved into a few prompts that served as a springboard to connect previous reflections from both the researcher and the participants to current experiences. Following is the original interview protocol, which was changed after the first series of interviews:

1. Would you tell me about a time you made a decision as part of a group.
2. Would you describe the process the group used to make that decision.
3. What do you consider effective group decision making?
4. Would you describe what you consider in general to be your decision making authority as part of that group.
5. When you make a decision as part of a group what goes through your mind? What factors do you consider?
6. What factors constrain your decision making?
7. How does the group treat input from outside of the school? What form does that input come in?
8. How do you treat input from outside of the school? What form does that input come in?
9. Describe the importance of selection of members of the group?
10. How does the group handle conflict?

11. How do you handle conflict within the group?

12. Is there anything you would like to add about group decision making or your role in it?

The subsequent series of interviews relied on a review of the experiences which emerged from the first interview, and follow up questions stemmed from the information the participants divulged. Questions 1, 2, 5, and 8 from the original protocol did serve as springboard questions for three of the six participants during subsequent interviews. Overall, the second through fourth interviews were participant-specific.

Group observation.

The phenomenological interview is the direct method of collecting experiential material. Observation, also called close observation, is a more indirect method which will be utilized through this study to capture the experience of a collaborative group during the act of decision making. The data collected from group observations impacted the interview by providing a common experience between the researcher and the participant from which interview conversations could naturally evolve. This investigation used observation without participation from the researcher. Intensive note-taking and audio recording was used to capture data.

Through bracketing and reflective memo writing, the researcher must be keenly aware that observations yield different forms of experiential material than that obtained through interviews (Fitzgerald, 2006; Pollio et al., 2003; van Manen, 2002). Caution must be taken not to treat information gained from an interview as a rubric applied to the observed data. This was protected against by strictly following the data analysis protocol explained in the data analysis section in this chapter. The key tenet of phenomenological research is that the researcher goes into the research setting with as little manipulation of the experience gathering as possible (Moustakas, 1994).

For this study, each of three decision-making groups was observed during normally planned meetings. The Lead Team was scheduled for up to six hours per meeting, and the vertical and grade-level teams were scheduled for approximately one hour. The Lead Team met the first Friday of each month, the vertical team met the second and fourth week of each month, and the grade-level team met every week. The meetings for the three teams primarily focused on collecting and examining assessment data to decide on instructional strategies to implement in the classroom. The Lead Team additionally worked on school-wide scheduling of activities and programs and decided which data would be collected and how it would formally be organized and reported from the grade-level to the vertical team and then to the Lead Team. The vertical team, which had representation on the Lead Team additionally worked on curriculum alignment through a specific content area and collected assessment data from the grade-level representatives on the team. The grade-level team, which had members assigned across the content area vertical teams, additionally worked on reporting back from the vertical teams and incorporating strategies into the classroom. The audio recorder was started upon entering the room. The documents that were referred to during the meeting were collected. Each speaker was identified by their job title. See Appendix D.

Data Analysis and Interpretation

The aim of hermeneutic phenomenological data analysis is to transform "lived experience into a textual expression of its essence – in such a way that the effect of the text is at once a reflexive re-living and a reflective appropriation of something meaningful" (van Manen, 1997, p. 36). The data analysis in this research was adapted from phenomenological and hermeneutic principals from the literature about ways of interpreting data. There were five stages adapted from clinical research conducted by Ajjawi and Higgs (2007) used in the analysis (see Table 2).

Throughout the stages of the analysis, ongoing interpretation of the research texts was conducted. Using the hermeneutic circle strategy of constantly seeking understanding and interpretation between the parts (the data) and the whole (the evolving understanding of the phenomenon), the researcher's pre-research assumptions, as documented through the bracketing interview, was contrasted and compared with the findings in the research text (Bontekoe, 1996). In this way, the researcher was able to address prejudice derived from literature or personal experience. Lincoln and Guba (2000) recommended constant checking of the researcher's interpretations with the original text to maintain faithfulness to the participants' narrative constructs.

Table 2
Data Analysis Stages for this Research

Immersion	• Organizing data into texts • Iterative reading of texts • Preliminary interpretation of texts for coding
Understanding	• Identifying participant constructs (first order) • Coding of data
Abstraction	• Identifying researcher constructs (second order) • Grouping constructs into sub-themes
Theme development	• Grouping sub-themes into themes • Elaboration of themes • Comparing themes across sub-discipline groups
Illumination of phenomena	• Linking literature to the identified themes • Reconstructing interpretations into stories

The immersion stage involved constructing texts for each participant from the interview transcript, observation transcripts, field notes, and document analysis. The texts were catalogued

under the three sub-discipline groups (lead, vertical, grade teams). The researcher repeatedly read the transcribed interviews and observations and repeatedly listened to the recording from which the transcriptions were derived to become familiar with the text set. This is referred to as immersion in the data by van Manen (1997). The purpose is to get a sense of preliminary interpretation to facilitate coding. The field notes written during the observations and interactions with the participants served to foster the recreation of the context in which the communication occurred.

The understanding stage was used mainly to identify first order constructs, which are participants' ideas expressed through their own words (Titchen & McIntyre, 1993). First order constructs were identified first for the participants in the observed Lead Team and were then coded for the vertical and grade teams. During this process, the relevance of identified constructs was questioned, and overlap/connections between and among constructs were identified. The researcher's understanding was checked by reflecting back to the participants ideas raised during previous interactions and observations and by asking probing questions during subsequent interviews. This form of iterative participant checking contributed to the richness and depth of understanding about the participants' experiences.

The abstraction stage was used for researcher-generated second order constructs. The second order constructs arise from the researcher's personal and theoretical knowledge about the identified first order constructs. Separate computer files were created to store identified second order constructs and related textual data subsumed under first order constructs used as the label. Interpretation of each interview transcript was used to develop a view of each participant's data as a whole. Using the same analysis technique, which builds from the immersion stage through the understanding stage, a composite data-set for each of the three sub-groups was created to use

to understand each participant's data and to examine any similarities among groups. At the conclusion of this stage, all relevant text data was catalogued under the relevant construct for each sub-group and used to answer the research question and sub-questions.

Themes were formulated from the results of the first three stages. The second order constructs were then grouped together under fewer, broader themes both across and within the three subgroups. Themes and sub-themes were elaborated upon and clarified by repeatedly reading the data. This involved "continuously moving backwards and forwards between the literature, the research texts and earlier analysis, moving from parts to whole following a process informed by the hermeneutic circle" (Ajjawi & Higgs, 2007, p. 625).

The final stage of illumination examined the literature and Mezirow's theoretical model for links to the themes and sub-themes derived from the entire data-set. Links between themes was examined to foster further theoretical development. Themes and sub-themes were used to develop narratives to reconstruct the participants' learning progression and discuss key findings from the data.

To effectively follow a participant's engagement in collaborative decision-making groups, hermeneutic phenomenology allowed appropriate delving into human actions, intentions, and behaviors as experienced. The data collection and analysis techniques allow for individual and group data to be catalogued and interpreted as meaningful constructs. The hermeneutic phenomenological analysis process aligns well with Mezirow's Adult Transformational Learning Theory. They both recognize the individual as autonomous and as part of a group, and they both recognize the individual as a learner who develops capacity over time even within a narrow decision-making process or during a specific response to a dilemma.

Ethical Considerations

Ethical considerations were addressed in the delivery, collection, analysis, and reporting of the participant's responses. Signed consent forms were collected from each participant. All statements made to the potential participants were factual and made with full disclosure. All promises of confidentiality and anonymity, as best as can be assured through a phenomenology methodology, were honored. Participants had the right to refuse to begin or continue responding to the questions or being observed at any time. No minors participated in the study; therefore, no parent/guardian consent was warranted. Participants were allowed to refuse to participate if they believed they were identifiable even without the use of names or addresses. Constant reminders about maintaining confidentiality were provided to the group members.

Any decision team that did not have 100% member participation was excluded from the study. In that instance, another team was recruited and went through the consent-granting process. The researcher did not articulate which teams were hoped to be observed until three teams granted consent. School administration did not know which teams other than the Lead Team were solicited for the study. All members of the teams were required to have their voice recorded if they spoke in a group setting. Members selected for interviews were required to be voice recorded. The possible effect connected to this is that some participants, who sign consent forms, may withhold comments during recorded team meetings. This could result in a diminished understanding of team goals and strategies. It may also prevent a member from articulating a concern.

The Information/Consent Form (Appendix B) was a tool to protect human subjects from physical or psychological harm. The form was used to explain the study, describe the role and responsibilities of the researcher, describe the protection afforded to the participants, and obtain

consent through participant signatures. With the exception of two potential participants, all team members offered to sign the consent forms during the study overview presentation. Three complete teams signed the form allowing the investigation to proceed.

The protection of human subjects was ensured through the IRB process. All data collected were stored in a locked file cabinet with any identifying information stored in a separate file and separate drawer in the cabinet. All participant-identifiable data and information related to the research study will be destroyed at the completion of the requirements for earning a doctoral degree.

Conclusion

The epistemological framework for this study was constructed around hermeneutic phenomenology stemming from Martin Heidegger's *Sein und Zeit.* The hermeneutic approach was informed by van Manen (1997) and Ajjawi and Higgs (2007). The theoretical perspective which informs and shapes this research was derived from Mezirow's transformational learning theory. This study was conducted using three decision group members at a school in one school district. The purpose was to explore collaborative decision making as it is impacted by the influence from the educational environment. Observation and semi-structured interviews were performed. Documents were collected and field notes were written. The observations and interviews were audio recorded and notes were taken simultaneously. Data analysis was informed by Titchin and McIntyre's (1993) thematic analysis model.

Hermeneutic phenomenology was the appropriate methodology to examine individual participation in collaborative decision-making groups. The participant's learning journey was investigated through interpretation of their lived experiences.

The next chapter reports the findings of the study.

CHAPTER 4: RESULTS

Overview

Chapter IV presents the results of data analysis with the purpose of answering the following research questions:

1. How do environmental influences (the people, policies, programs, and procedures) impact the factors individuals consider in a collaborative decision-making group?

1a. Which micro, meso, and macro inputs does a collaborative decision-making group member (school-based teacher and administrative leaders) rely upon during the decision-making process?

1b. How does a collaborative decision-making group member make sense of (operationalize) and utilize micro, meso, and macro aspects of the educational environment?

The primary research question addressed the reciprocal nature of information as transmitted through the micro, meso, and macro levels of the educational environment. The questions subsumed under the primary question address identifying specific environmental influences (1a) and how individuals respond to those influences and incorporate them into decision making (1b).

In accordance with the research plan for data analysis, recordings were organized and transcribed, texts were repeatedly read, and data were coded under broad open codes in order to gain immersion into the texts. Then, to gain understanding, the data were coded to inductively annotate participant constructs as they emerged from the texts. Next, Mezirow's theory was applied to the texts along deductive lines. Specifically drawn out from the theoretical coding (etic) are the complexity, uncertainty, ambiguity and equivocality of knowledge attainment. I then combined the open codes into sub-themes, which were then grouped into four major themes.

In accordance with the data analysis plan, I organized the transcripts into two binders. One binder was for team observations, which was further organized by the pilot study, lead, vertical, and grade-level observations. The other binder contained the transcribed interviews with the six participants organized by job title. Each binder had a code book at the front that described the levels of coding (open, emic, and etic) (Ajjawi & Higgs, 2007; Creswell, 1998).

The data were collected through three methods: group observations, individual interviews, and document review. The group observations and documents were used to help understand the interview data. Six school leaders and three collaborative groups comprised the sample. A group protocol (Appendix D) and an interview protocol (Appendix C) were employed for this study. Both protocols had a first contact and subsequent contact set of procedures. The interview protocol was semi-structured and was utilized in its entirety only for the first round of interviews. Consistent with phenomenological research methods, the interview questions were adapted to explore in depth the ideas each participant generated in both initial and subsequent interviews.

Chapter IV was organized from the components of the research questions and presented through storymaps. A storymap organizes "the learner's recounting" of their engagement with the micro, meso, and macro levels under a rubric of identified factors and themes (Richmond, 2002). The mapping component of a storymap "gives a shape to individual stories and allows for a more penetrating analysis in relation to the objectives of the research" (Richmond, 2002).

According to the research procedures described in Chapter 3, the researcher engaged in two reflective exercises to check researcher bias during the analysis process. Bracketing interviews were conducted prior to every observation and interview. Questions from the protocol were considered as a response to my work day. If I encountered situations with student

assessments or engaged collaborative teams for example, I would write my ideas and feelings about what I experienced knowing I would most likely encounter those topics during observations and interviews. After each contact with the teams and participants, I wrote a reflective memo (often in my car before I left the site). The memos took on the form of a free write I used to unleash my thoughts, feelings, interpretations, judgments, and predictions about what I saw and heard. Before each data coding and analysis session, I read the applicable bracketing and reflective memos pertaining to the team or person I was analyzing. I was particularly attuned to my interactions with micro, meso, and macro level influences as articulated my own biases.

The micro level of the educational environment is defined for this study by the students and staff who are a daily part of the school's operation. It also includes the activities and programs conducted as part of the functioning of the school.

The meso-level for this study is defined as the parent, community, and school district resources that have influence and interaction with the school. The meso-level entities may impact the school daily through interaction or through implementation of policies and procedures, but the meso-level representatives do not occupy space in the school on a daily basis.

The macro-level indicators for this study include state, federal, and global factors which directly or indirectly influence policies, procedures, and laws enforced at the district level and, ultimately, through the schools. In general, at the school, the macro factors often were manifested through discussions of state and national tests and through discussions about special education, where federal law was often a consideration.

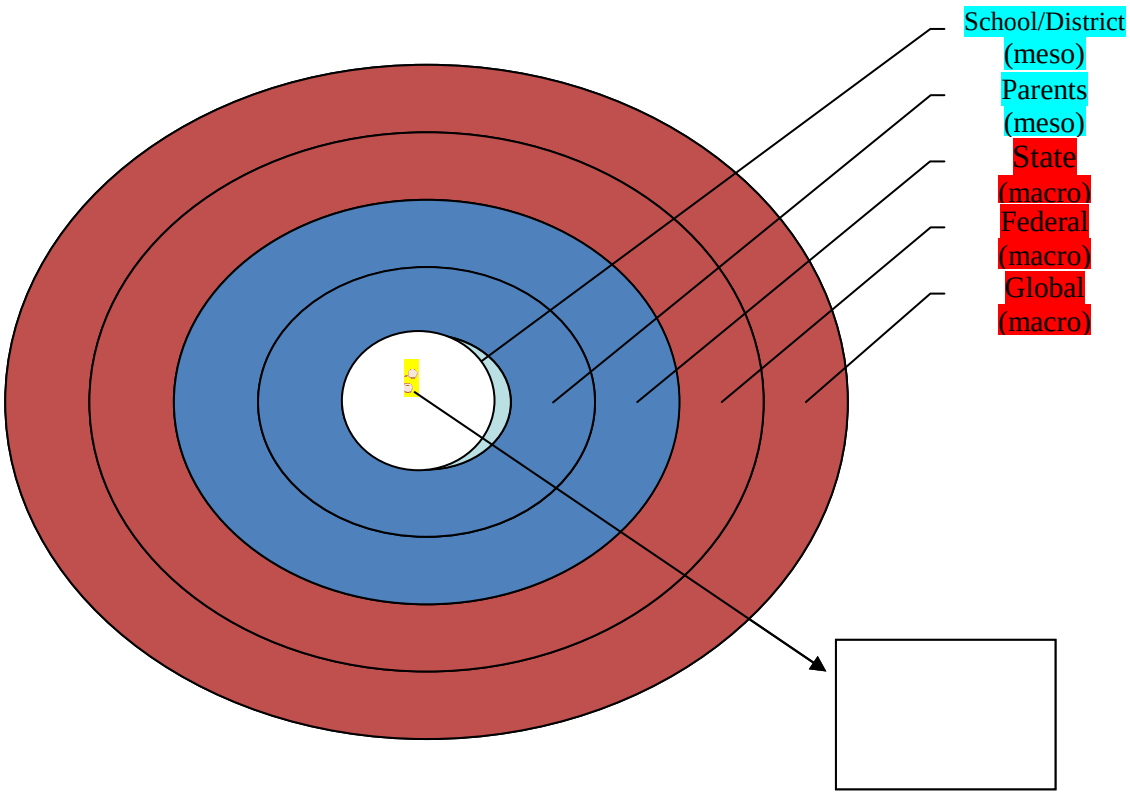

Figure 6: Micro, Meso and Macro-level factors influencing school decision-making

Group Observations

The group observations served this study by providing a context to observe individual team members in action. The observations enabled the researcher to construct specific and meaningful interview questions to explore the phenomenon of individual decision making with depth.

The Lead Team

The first meeting I attended was the organizational meeting for the Lead Team in August 2009. The principal asked that I not record that meeting because she wanted to discuss sensitive

personnel matters and have a frank discussion with the team about confidentiality among the team members in response to some breaches in confidentiality the previous academic year that lead to the team becoming "dysfunctional." The Lead Team for the 2009-2010 school year had 10 members, four of which were either new to the Lead Team or in a new role after the principal made personnel changes. I used this meeting as an opportunity to gain an introduction to the Lead Team members and explain my research and collect Information/Consent forms. I scheduled with the team to attend four meetings on the first Friday of each month for the months of October, November, December 2009, and May 2010. The next meeting I attended was the first "official" meeting of the school year in October 2009. By May's observation, the cycle of assessment and intervention was near completion for the school-year. Teachers and administrators were reflective about the school year as they made plans for the adjustments to be worked on during the summer and implemented during the next school year.

Table 3 documents the attendance of each member of the Lead Team at the monthly meetings. An X indicates the member was present. An asterisk indicates that member was new to the team or position during the 2009-10 school year. The positions in bold type are of those who were selected for semi-structured interviews after each meeting.

Table 3
Attendance of members of the Lead Team members at monthly meetings

Position	August 2009	October 2009	November 2009	December 2009	May 2010
Principal	X	X	X	X	X
Assistant Principal	X	X	X		
Communication Skills Specialist (CSS)*	X	X	X	X	X

Instructional Skills Specialist (ISS)*	X	X	X	X	X
Math Vertical Team Lead*	X	X	X	X	X
Science Vertical Team Lead	X	X	X	X	X
Social Studies Vertical Team Lead*	X	X	X	X	X
Special Education Teacher (1)	X	X	X	X	X
Special Education Teacher (2)	X	X	X	X	X
English as a Second Language Teacher (ESL)	X				

The Vertical Team

The school site for this research study had four content vertical teams that were comprised of members from each grade level (K-5). The Communication Vertical Team met every second and fourth week of the month, after the Lead Team met. A member of the Lead Team (the CSS) served as the leader for the vertical team. Her role was to assist in conveying and implementing the decisions from the Lead Team.

For this study, the Communication Vertical Team (CVT) for English/language arts was observed four times: September 2009, October 2009, November 2009, and May 2009. The team met every two weeks following the Lead Team meeting. Every CVT meeting followed a similar format: (1) the previous monthly test results by grade level were presented as "pass" rates compared to set performance goals. The test results were used to frame strengths and weaknesses; (2) specific effective instructional strategies were offered as suggestions to improve performance in weak areas; (3) general concerns, questions, or need for clarification were addressed before closing the meeting.

The 3rd-Grade Team

Each of the kindergarten through fifth-grade levels has a team which met weekly to plan lessons, ensure pacing, discuss student results, and address concerns or issues. One primary action of the team was to have the members relate information from their respective vertical team meetings twice a month. For this research study, the 3rd-grade team was selected because student results on the Virginia Standards of Learning tests were the weakest at the school and district level for 3rd-graders. The 3rd-grade team was comprised of a team leader and three members. The Social Studies Vertical Team leader, who is also a member of the Lead Team served as a member of the 3rd-grade Team. The team met weekly.

After students took monthly assessments on Scantron score sheets, the team leader scored them electronically through a computer program called D2SC. The Communication Skills Specialist (CSS) and the Instructional Skills Specialist (ISS) accessed the scores and compiled them into reports for the grade teams. During the grade-level meeting, the team dug deeper into the results beyond pass/fail percentages. The data were reported by teacher and skill set categories. All monthly assessments were created by the CSS, who designed tests to simulate the Virginia Standards of Learning test (SOL) in format and content. Each monthly assessment tests student knowledge in the following skill areas:

1. Main idea
2. Facts and details
3. Understanding sequence
4. Cause and effect
5. Context clues
6. Word meaning
7. Inference
8. Fact and opinion
9. Author's purpose
10. Multiple meaning
11. Figurative language
12. Summarizing

13. Word study (word endings such as “s” and “es”)

Individual Interviews

Six members of the Lead Team were selected to participate in semi-structured interviews. As school leaders, they have connections with teams that represent all levels of school organization from the administrative school-wide level through the grade-level representation to the grade-level implementation of programs and initiatives. With the exception of the principal and assistant principal, the other participants served as leaders or members of vertical and/or grade-level teams. Together, they served in a total of eleven team roles within the school site. Table 4 shows the demographic information for each of the interview participants. The participants are identified by their positions/roles throughout the report of findings.

Table 4
Interview participant demographic information.

Participant	**Teams**	**Age Range**	**Years in Education**	**Years at Current School**
Principal	Lead	55+	30	14
Assistant principal	Lead	55+	30	2
Communications Skills specialist (CSS)	• Lead • English Vertical	25-35	6	1
Instructional Skills Specialist (ISS)	• Lead • Assists all vertical and grade teams	25-35	6	6
Regular Education Teacher	• Lead • Social Studies	46-55	10	5

	Vertical • 3rd Grade			
Special Education Teacher (SPED)	• Lead • 1st Grade • 5th Grade	25-35	5	4

Each participant was interviewed four times with the exception of the assistant principal, who was interviewed three times because of schedule conflicts during the third round of interviews. The interview protocol (Appendix C) was followed during the first contact with each participant. Subsequent interview questions were informed by the individual responses from the participants from the first interview and became specialized and unique to the experiences of the participants.

The individual data presented in this chapter were organized by the participants and examined through the three environmental levels (micro, meso, and macro) under factors and themes that emerged from the research.

Themes

The themes from the data comprise the rubric with which groups and individuals were examined through the environmental levels. The themes were derived from emic (emergent ideas) and etic (applied ideas from theory) coding. The themes which emerged from the emic coding were principal power, resource allocation, student performance, and ways of knowing, which is how information is attained and understood. Principal power referred to the relative influence the principal had to allocate resources within a school relative to the influence from other micro, meso, and macro leaders. Resource allocation referred to the way programs were

selected, time was used, people were selected and used, and the logistics of managing resources**.** For this study, resources also included community members and parents. Student performance referred to how school staff interpreted student performance and provided intervention to promote increased student achievement**.**

The theoretical foundation for this study was Mezirow's theory of adult learning. A main component of Mazirow's theory was how individual learners gather and manage knowledge from a variety of sources. A part of gathering and making sense of information often involves experiencing ambiguity, complexity, certainty, and equivocality through communication. These four ways of knowing were applied to the data through etic coding during the coding process and collectively function as an additional theme for data analysis. The ways of knowing addressed the types of information group members received from the micro, meso, and macro parts of the environment and how they made sense of information through knowledge-processing.

Ambiguity is when an individual or group lacks the ability to understand or interpret some action or information (Machlup, 1980; Weick, 1969). *Complexity i*s when many situational elements and relationships exist in a way that they cannot be coordinated or considered simultaneously. Complex situations are not necessarily vague or unpredictable. Tasks, such as coordinating staff development, or problems, such as improving the implementation of an instructional strategy, or the school organization itself, may be clearly defined and predictable, but the procedural intricacy or the variety of relationships involved in the decision are too large to easily process (Campbell, 1988; Zack, 1998). *Uncertainty* is defined by a lack of information about the task, goal, or situation and some lack of confidence in the consequences when the predictability of other activities upon which a task is dependent does not exist (Galbraith, 1973; Zack, 1998). In schools, uncertainty is usually present through the distribution of information

among stakeholders, emerging policies, and evolving technologies as part of the process of preparing for future situations (Zack, 1998). *Equivocality* exists when multiple meanings or interpretations exist for the same thing (Machlup, 1980; Weick, 1969, Zack, 1998). As staff members in schools or school districts attempt to share best practices, the ability to decide on the best approach to implement the practices may be hampered by the multiple interpretations about how something should be done. These four areas were integral to knowledge attainment for decision-making group members (Zack, 1998).

The four themes of principal power, resource allocation, student performance, and ways of knowing were discerned from the data for the potential of each to guide the analysis to an in-depth examination of how individuals engage the micro, meso, and macro environment levels to make sense of information, develop knowledge, and make decisions.

Group Storymaps

The group observations conducted for this study served primarily to inform the individual interviews, which followed each group observation. The phenomenon of individual decision making was explored through the group observations, in addition to individual interviews. The group observations allowed the researcher to collect documents, watch interactions, and reference participant group experiences during the individual interviews to create a rich data pool about individual decision making.

Storymap: Lead Team

The Lead Team is comprised of the principal, assistant principal and instructional teacher leaders who collect school-wide data for all grade levels. With the exception of the assistant principal, the principal selected and invited the other members to be a part of the team. The

meetings were scheduled for the first Friday of each month for the entire school day. The Lead Team meetings are arranged and presided over by the principal, who sets the agenda and pace.

Table 5
Lead Team

	Principal Power	Resource Allocation	Student Performance	Ways of Knowing
Micro Level	• principal sets agenda • principal dictates data format and content • principal made final decision after input from others	• developed Response to Intervention model • coordinate teachers to provide student support • schedule data collection and meetings • schedule and appoint leaders for activities and programs • attempt to involve parents in intervention	• individual students discussed • created weekly and monthly assessments • place students in support groups	• disparity of individual student scores across multiple tests assessing the same content • managing school programs • scheduling multiple small group intervention • multiple possibilities for student performance across assessments
Meso Level	• "fought" against "canned" programs from district	• implemented district mandated programs • manage district testing	• relied on district quarterly test to determine student support	• manage district pacing of instruction for quarterly tests • predicting district program changes or new initiatives
Macro Level		• time constraints on students support because of state testing schedule	• monitor instruction for state tests • manage national tests • use state and national tests to determine student support services	• processing changes the state made to the state (SOL) tests • understand special education IEP for state tests (SOLs)

Micro Level: The principal was the dominant voice in the lead team meetings. This does not suggest the other members did not frequently talk, but they primarily served as conveyers of information for the principal to make recommendations or give directives about follow-up actions. With limited exception the entire meeting was devoted to combing through the monthly and quarterly scores for each student. The results from the weekly tests were used by classroom teachers as a predictor of student success on monthly common formative assessments, which were created by the school-based instructional specialists. One of three decisions was made about students depending on their scores. Each student was either kept at the present level of intervention because of satisfactory or unsatisfactory performance, removed from intervention support because of satisfactory performance, or placed in intervention support because of unsatisfactory performance. Decisions concerning overage and special education students were also discussed. The science and math teacher specialists, the Communication Skills Specialist (CSS), the Instructional Skills Specialist (ISS), the Special Education (SPED) teacher, and the Regular Education Teacher (RET) (social studies) were responsible for presenting student performance data for their content areas. They answered probing questions from the principal and were the last to provide input about their students before the principal made a final decision about intervention support.

The principal provided an interpretation as well and often made assertions beyond the empirical data, such as when discussing an individual student:

> I did want to move him, yes. He's two years behind. If I sent him out of this building two years behind, the odds are that he will drop out of school. The research is solid on it. My disappointment is I can't even put him up on probation [promote him to the next grade with the understanding that she could move him back down based on his performance]. I just don't think he is ready.

The Lead Team oversaw a student intervention program the principal brought to the school from a training she attended. The student support was arranged according to the Response to Intervention (RTI) model that utilizes three levels of tiered support. The 2009-2010 school year was the first year of fully integrating the RTI model into the school. The primary level was general classroom instruction for all. The secondary level addressed the needs of most "at-risk" students in the general classroom through differentiated instruction. The tertiary level was where individualized intervention was provided to failing students. The principal said that during the 2009-2010 school year "we're having growing pains with what we are doing, and we've made a lot of changes this year because of the fact that we've moved completely into RTI." In previous years they were "doing our own model, which had so many elements of RTI, but this tier three was more informally done before."

The Lead Team was the group within the school which directed the use of personnel and set priorities that guided the way staff members used their time during the school day. Although, the principal served as the primary decision maker, this was the one area where other members of the lead team were vocal about concerns about time allocation, in particular. Often, the concerns were articulated as questions. For example, the Communications Skills Specialist (CSS) asked if there was a central place where the tier three teachers "come to get information" because "I know [one teacher] is based in the literacy room, but I never see her in there. She had a little spot, and I was putting her data there, but I think it's still there." The principal directed her to have "her report to you on Monday mornings. That way if there are any changes or adjustments, any new materials that you thought of that you want them particularly to work with, especially in math" they could be ready.

The lead team members expressed the complexity of managing school programs to incorporate school-generated initiatives and to comply with district mandates. One topic was scheduling the classroom and multiple small-group instruction for a sizable number of students receiving tiered intervention. The roster for the pull-out programs featured a different rotation of students each month, which made scheduling a frequent consideration. The principal was committed to the RTI as well as literacy groups students participated in. The inconvenience associated with pulling students and working to keep them on pace with the classroom instruction was the price the team decided to pay for providing support. Although it was the principal's decision, the other team members agreed the small groups were necessary for higher student achievement. All of the team members expressed concern about successfully involving parents in assisting their children with the reading initiatives. The success, they collectively expressed would come from the work at the school.

The lead team compiled at least three different sets of assessment data to attempt to eliminate uncertainly when determining if a student required tiered intervention support through RTI. Occasionally, a dilemma arose when scores on multiple assessments showed an unexplainable gap, or when the team members were deciding on intervention and not enough data existed. One conversation between the principal and the ISS about a student addressed multiple concerns. The principal said the student required tier 3 support "because her scores are 40 and 47." She asked the ISS if "you have a different score for her?" The ISS said she had a score of 60, but "I may have put it in wrong." The other concern came after reviewing a printout of the student's cumulative testing history. The principal said the following:

> Look at that printout. She has one, two, three, four, five, six, seven, eight, nine missing scores. When they're missing that many, it's just across the board. It's going to be a challenge to figure out what to hit.

The implication was for the ISS to figure out “what to hit.” Not a lot of meeting time was devoted to answering all of the questions and concerns that sprouted from data analysis.

The lead team meetings were fertile ground to observe the concept of equivocality. The team members often worked through the multiple possibilities concerning why a student may have performed well one month and poorly the next and whether the data represented a pattern or a fluke. The team members also debated the best, the realistic or practical strategies to address classroom concerns, the professional development of teachers, and the implementation of programs and activities.

The teachers and specialists on the Lead Team were most vocal and opinionated when decisions concerning how they would spend their time or whether they would have to develop and lead the implementation of initiatives were discussed. When decisions impacted the way they could allocate their time or required them to marshal resources and complete additional tasks, the teacher leaders sought clarification.

. **Meso Level:** The student scores from common formative assessments (CFA) and scores from district quarterly tests were used by the lead team to make decisions about instructional interventions for low-performing students. While providing support, the teacher leaders had to collect quarterly test data. The principal said, “Of course, the months you have quarterly data, we have to bump [monthly tests] forward because we have to be on the district schedule for quarterlies.”

The RTI program was the only school-wide program developed by micro-level leaders. The principal was opposed to “canned” programs, and though most meso-directed programs from the district did not deliver the impact that her school-based program could. The principal made a comment in December and in May about how the district offered “too many pre-

packaged" programs that she was going to resist implementing if she could. It was clear the "fight" to resist these programs was the principal's. When district representatives questioned teacher leaders about district programs, the principal intervened. The principal served as the point of contact to represent teacher-leaders such as the ISS and CSS when conflicts or misunderstanding occurred with district personnel.

The lead team members determined eligibility for tiered intervention services by using two cut scores. The school monthly tests had a cut score of 70%, while the district identified students scoring below 60% as being in need of support. The principal reminded the team members of this and said, "Remember 60 is the cut score the district uses. We look at the 70% cut score here at [the school]. The district looks at 60, and the truth is that's where it aligns with the SOL test."

Ambiguity was evident during micro as well as meso environmental engagement when the team members struggled to understand why particular students showed a wide disparity of scores among school, district, and state assessments. The timing of tests, the instructional pace of the class to cover the curriculum, the wording of questions, the student's personal life, and the teacher's ability were considered when a student routinely failed monthly tests but passed the quarterlies, especially if there existed a 5 to 10 point difference.

The complexity of managing school-based programs was compounded by the district essentially dictating the pacing of classroom instruction for the entire school. This was discussed by the principal and the Communication Skills Specialist (CSS). Grades that were required to be submitted to the district would only be accomplished if a rigid pacing schedule was adhered to.

In addition to facing the uncertainties about student performance at the micro level, the lead team members talked often about predicting district programmatic changes or new initiatives that may emerge.

Macro Level: The Lead Team members used macro-level assessments to help determine students' eligibility for tier 2 and tier 3 intervention. Along with the monthly and quarterly data, SOL scores for each student factored into decisions about student placement for additional academic support. Data from state tests, classroom assessments, and personal knowledge were used to present an academic profile for each student used to decide on the type of intervention to provide if any was needed.

The Lead Team integrated micro, meso, and macro-level data into every observed meeting. They seemed to fluidly discuss the school's monthly, the district quarterlies, and the state standards tests as one set of triangulated data for each student. Occasionally, the lead team members evaluated the formative monthly and quarterly results from a teacher while examining the 2009 state Standards of Learning (SOL) test results for her students. The principal was concerned with the pattern one teacher had of producing low results for a majority of the monthly and quarterly tests, yet produced strong SOL results: "Let's just say that by SOL time last year, her kids did well. But earlier in the year she struggled, and so she seems to be struggling with the same things and may need some more help." The SOL tests were used to guide decisions about where to focus instruction. The principal was concerned about falling science and social studies scores at the fourth grade. She questioned if instructional time usage was unbalanced across content areas because of the demands to produce high SOL test results. The question went unanswered as many of the questions the principal asked did. Most questioning for the principal was a form of think aloud, which prompted the other members to

write down what she thought. Occasionally, the question arose again later in the meeting after a pattern developed and the principal decided it was time to pursue an answer.

The team members faced uncertainty with the periodic changes the state made to the SOL tests. During one conversation, the RET and the principal discussed how "we were doing so poorly on the social studies SOLs," before focusing on vocabulary as a "power strategy." After the vocabulary initiative, "those grades popped up." The concern for the current school year was the uncertainty with the changing 4th-grade SOLs. The ISS, RET, and principal wondered if the vocabulary strategy would be enough and if the study guides the team liked, generated by a specialist from the district, were still relevant. The principal directed the ISS and the RET to coordinate a revision of the guides. The SPED teacher expressed concern about allowable testing accommodations for students with Individualized Education Plans (IEPs).

> [The principal] often feels the same frustration. There are times there's a conflict, and it happens that the department of education does not state what [the district mandates]. It will escalate to the point where [the principal] will get involved with the person who's in charge with special education for [the district] and they will have a discussion and clarify things that need to be clarified.

A constant source of equivocality for the principal, as member of the lead team, was with the district and the programs and assessments it mandated. When discussing national assessments the district approved and disapproved she said the following:

> I like the STAR [national test], and I think as we saw from the RTI site where they're analyzing all the tests for universal assessments, they are rating the STAR very high even though the district has abandoned it and put in these other ones that are not getting such high ratings. It does not matter because we don't get to make that decision.

Summary

The principal was the dominant voice during the lead team meetings. The other members primarily served as conveyers of information for the principal to make recommendations or give

directives about follow-up actions. With limited exceptions, the meetings were devoted to combing through the monthly and quarterly scores for each student. The student scores from the school common formative assessments (CFA) and scores from district quarterly tests were used by the lead team to make decisions about instructional interventions for low-performing students through a Response to Intervention (RTI) initiative. The complexity of managing school-based programs was compounded by the district essentially dictating the pacing of classroom instruction for the entire school. The Lead Team integrated micro, meso, and macro-level data into every observed meeting. They seemed to fluidly discuss the school's monthly, the district quarterlies, and the state standards tests as one set of triangulated data for each student.

Storymap: Vertical Team

The Vertical Team consisted of a team leader, the CSS, and one member each from grades kindergarten through 5th grade. The members represented their respective grade levels. They were responsible for relaying information to the grade team members and bringing questions or concerns to the vertical team from the grade teams. In addition, special education teachers would circulate among the teams.

Table 6
Vertical Team

	Principal Power	Resource Allocation	Student Performance	Ways of Knowing
Micro Level	• implement programs as directed by principal • principal priorities are team's priorities	• schedule time for specialists and teachers to meet • implement professional development • assign tasks for members to take to grade teams	• focus on overall grade level pass rates • recommend strategies for each grade level • delivers information from lead team	• completing tasks and paperwork • gap between what team taught and how the students were receiving the information • interpret lead team directives and how actions done at each grade level.
Meso Level		• manage E-Portfolio in accordance with district	• collected district quarterly test results • discussed quality of district quarterly test questions	• confusion about coding students receiving district services
Macro Level		• additional time and teachers to work with students in spring for state test	• oversaw instruction for state tests • manage national tests	

Micro Level: The Vertical Team leader would begin each meeting by facilitating the presentation of results by grade level. Overall, the Communications Vertical Team meetings follow a predictable pattern to maximize time management and efficacy in the hour before the regular school day begins. It was a priority for agenda items to be covered, and they had to be addressed before students arrive for the day. The Vertical Team implemented and managed programs as directed by the principal as the micro-level leader. The team leader often referred to "what [the principal] wants."

In October 2009, the results were "kinda stale." Unlike in the lead team meeting, the vertical team meeting members did not frequently discuss individual students. Instead, overall pass rates on school and district tests were mentioned and followed by discussions about proposed and recommended strategies to increase student performance on the next monthly test. The content questions changed with each test, but the skills required for the state tests were constantly tested through the content.

The team leader was the CSS, who also served on the lead team. She articulated how teachers were a valuable resource and had responsibility for supporting one another and adjusting classroom practices based on data analysis. She solicited suggestions for professional development, made recommendations to the Lead Team, and facilitated professional development when appropriate. The October 2009 meeting was held near the end of the quarter when district reading tests were to be administered. The team leader made the following statement at the end of the meeting:

> Make sure you support your team. Please don't call in [absent] on the day that you have extra kids in your room. That will end up blowing it for people. Make sure everyone's supported and we don't have a lot of subs in the building that week. And I'm not pointing, you know. Also, make sure that you are using your [reading] data because part

of it was data you're supposed to be using in your classroom to restructure your reading groups

The vertical team members were observed discussing the different ways student performance data could be interpreted. They were also observed working through how to implement best practices. The process usually worked in the following manner: one member had an idea and started to instruct how to implement it. During the instruction, another member interrupted for further information or clarification. The instructor adjusted the presentation of information and continued, accepting interruptions to ensure clarity. Other team members who were familiar with the information would also add to the dialogue in an attempt to assist with understanding. The team leader summarized all of the input and described the actions to follow, which signaled the end of discussion about that topic. The team leader assigned tasks to implement through grade-level teams and supported scheduling time for specialists to meet or observe teachers.

The vertical team had the most members and frequently negotiated the interpretation of lead team directives and how actions were to be implemented at each grade level. One discussion focused on the use of basil readers at each grade level. The5th-grade teacher wondered if her approach to using the texts and documenting the use was consistent with the expectations of the principal:

> **5th**: I have a question, are we required that they have to be in basil every group?
> **CSS**: I don't think so, no, because if they're not in the fifth grade basil and you are doing supplemental texts beneath that, that's fine.
> **5th**: Because I sent her a long email of what I was doing and it was too detailed. She wanted it cut and dry. I'm using basils as supplemental for content; I'm not using it every day. So I gave her all the things I was doing.
> **CSS**: I would just use the level of text you're using. If you're using 4th grade text for your low group, I would just put 4th grade text. Just be very general.
> **5th**: That's what I did. I mean I just put 'below 4th grade.'
> **CSS**: Right. Because I think what she's really concerned about is tracking to make sure they are progressing. That they're moving and they're not in the lower 4th grade for the

rest of fifth, you know what I mean? I think she just wants to make sure they're moving along. So there should be three sheets, one for each group.

Meso Level: Discussions about the quarterly assessments focused on the quality of the questions and the test formatting. When the team was observed discussing the monthly school tests and the district tests, the team members were critical of the district assessments. No criticism of the quality of the monthly assessments was observed, except for questions concerning the length of passages and questions. One exchange between the Vertical Team leader (the CSS) and a 4th-grade teacher addressed an issue with the district quarterly test and the selection of students for the school-based RTI program. A teacher had given his students the quarterly test. One student was placed into a tier 3 slot as a result. The teacher told the ISS that it was a bad test. The student was getting tier 2 intervention, was performing well, and she should be removed from the tier 3 list. The student was removed.

The district mandated the use of a student writing management computer program called e-portfolio. Students had opportunities to score higher grades on essays after rewrites each month. The vertical team leader managed the progress of students for the team and assisted with organizing the documentation. The ePortfolio was not discussed as often as the monthly and quarterly assessments or classroom strategies, which were discussed for a majority of the vertical team meetings. It should be noted here that the E-portfolio is an English-based program. The school had three other vertical content teams, which may or may not incorporate other district-based programs. During the lead team observations, the E-portfolio was the only recognizable district-based program discussed

The Vertical Team was insulated from having to make decisions about allocating and managing meso-level resources. The lead team, guided by the principal, decided which resources from outside of the school would impact the school when the team members had a choice. When

the district mandated utilization of a resource, the lead team decided how it would be filtered to the vertical team.

The vertical team members, through the team meetings, addressed planning and coordination of school-wide activities and assessments. With representatives for each grade-level in the school, the vertical team was important for ensuring the complexities inherent with implementing the actions of the school were resolved.

The vertical team members worked through uncertainty primarily through the dissemination of a calendar created by the team leader of events as an organizational gesture and through discussions of best practices to achieve desired classroom goals. One discussion guided by the team leader displayed confusion about how to bridge the gap between what the team was teaching and how the students were receiving the information.

> We put work on sequencing, predicting, and main idea. With sequencing, something that works well are the sticky strips they can actually pull off; it's hands on. The questions on the [district quarterly] weren't only predicting questions but also making inference questions.

Macro Level: The Vertical Team was observed discussing SOL test data in three of the four meetings. The members were not observed discussing any other state or national tests. The team members relied primarily on utilizing school and district assessments, and they mentioned the SOL test when discussing local assessments and alignment to the state tests. The discussion seemed to be based on specific skills students would need for the SOL tests. The Vertical Team members referred to the SOL blueprint of objectives students were expected to master before taking the test in the spring. All of the members expressed a concern about students mastering the use of reference resources. The 4th-grade teacher expressed the following idea:

> I know that they can't use the dictionary on the SOL [test], but I feel like they aren't learning words necessarily. This goes to writing, because the little kids don't know how

> to use a dictionary, so they're not learning words; they're not learning how to spell them. The bad spellers don't know how to look up words that they don't know how to spell. That's a big problem for us in fourth grade. Could Mr. P do a lesson on something with the dictionary using guide words, because if they don't know how to spell, then they don't know how to look it up, then they will never learn the word.

The team leader proposed she coordinate with "Mr. P." to provide resources to teachers and schedule model lesson presentation with the individual teachers. The team leader reminded the team of the additional time the instructional specialists and other RTI support personnel would devote to selected students in the spring preceding the SOL testing.

Summary

The Vertical Team leader facilitated the presentation of student school and district results by grade level during each meeting. The vertical team had the most members and frequently negotiated the interpretation of lead team directives and how actions were to be implemented at each grade level. Discussions about the quarterly assessments focused on the quality of the questions and the test formatting. Through the team meetings, the vertical team members addressed planning and coordination of school-wide activities and assessments. The team members relied primarily on utilizing school and district assessments, and they mentioned the SOL test data when they discussed how local assessments aligned to the state tests.

Storymap: 3rd Grade Team

The 3rd-Grade team is comprised of four members. One teacher taught communication (English), one taught math, one taught science, and one taught social studies. The subject they taught corresponded with the vertical team they were members of.

Table 7
3rd Grade Team

	Principal Power	Resource Allocation	Student Performance	Ways of Knowing
Micro Level	• implement programs as directed by principal • principal priorities are team's priorities	• assign tasks for data collection and strategy creation for members • conflict between intervention groups and missed classroom time • common planning concerns	• focus on specific strategies for specific test question types • pacing of curriculum • classroom practice emphasis • test question concerns given to vertical team member	• advantage to have member on lead team with access to information and leaders • question alignment of school monthly tests to the SOLs. • possible techniques to implement common planning
Meso Level		• administer district quarterly tests • work directly with parents • minimize homework's impact on grades if parents do not ensure students work at home	• did not use meeting time to discuss district tests • focused on school-created tests	• question formatting and questions on district tests
Macro Level			• use state test guidelines for lesson planning • administer state and national tests	• Need better way to teach geography based on state results • question alignment of school monthly tests to the SOLs

Micro Level: The 3rd-grade team members usually held short, focused meetings and systematically reviewed student performance data, upcoming events, and specific best practices to be used by other team members. The team members were almost singularly focused on providing feedback about the school monthly tests, because the members believed they could affect change to the monthly tests. They felt any changes to the quarterly test were better handled at the vertical and lead team levels.

The team reviewed the social studies' monthly test student pass rate. The team agreed on the areas of strengths and weaknesses. The team member who also served on the Lead Team said the following:

> The strength of the students was they were able to use [pre-labels] to label the map, and they highlighted the key words and identified the important vocabulary words. So if they did well, mainly [it was with] the vocabulary, and they knew how to use label [to put on a map].

Then the team leader, who was a 3rd-grade teacher and vertical team member, went "over some strategies that our grade level would like to see to help us reach our goal." She said she would use her role as leader of the social studies vertical team to get "some suggestions and we will get some look-fors for next month's data." The team leader provided the basic structure for the meetings, but the team member, who was also a member of the Lead Team and the Social Studies Vertical Team leader was most vocal. She had the information the team needed to direct their instructional focus. She brought in information from the Lead Team and seemed to be the one the other members trusted to guide the team in the direction the principal wanted. Her suggestions were rarely questioned, and her proposals were always accepted during the meetings observed.

The RTI program was mentioned during the October 2009 meeting. One team member discussed her frustration with trying to ensure the students she recommended for Tier 3 intervention were getting "pulled" for help. In May 2010, the discussion was more reflective. The team members agreed that the RTI was valuable for keeping students on grade-level, but they had concerns with the timeliness of identifying students and the limited number of available slots for students to participate as RTI is designed as a one-on-one intervention at the Tier 3 level.

The 3rd-Grade Team meetings did not foster many observable discussions about micro-level programs. A majority of the meeting times were focused on reviewing specific test questions to determine if they were valid and how well they assessed a particular skill. The team members discussed in detail student test taking habits and strategies they would use to adjust their classroom instruction.

The 3rd-Grade Team members were focused was on pacing of lessons to both cover the curriculum and stay aligned with each other. The idea of common planning was raised by the team leader in October 2009. In May, common planning as a regular, organized activity for the team members had not taken hold because individual planning and member time commitments to school-based activities and programs took precedence. There was an evolution in the way the team members agreed to divide tasks and be responsible for developing strategies or collecting information. One member had a concern about relying on another member for lesson plans and having that member not deliver. The member who also sits on the Lead Team said it would only work if they set rigid deadlines for each member to deliver lesson plans to the team. The team member, who is also a Lead Team member and Social Studies Vertical Team leader, expressed her concern with common planning when she said, "I'm not against it, I just feel like it kind of

locks me in, and I don't like being restricted." She added, "I feel like I can't be flexible. We're going to all get to the same end point." Without her commitment to implement common planning, the planning initiative was put on hold.

The 3rd-grade team also discussed the logistics of having students pulled for tiered intervention. The concerns were about the instruction the students were missing while out of the room and how certain students could not be pulled together because of the disparity in content mastery among students. The team member, who also sits on the Lead Team and is the social studies' vertical team lead, mentioned one example of this.

> We need to work it out. But right now [the tiered intervention teacher] is coming from 1:00 to 1:30, and then she's coming back from 2:00 to 2:30 to get Vicky. [She has] her back by 2:30, so she doesn't miss any social studies. She can't pull her with Jasmine and Jose because she's just not on their same level.

Having a team member who led a vertical team and served on the Lead Team minimized the impact of ambiguity on the team. She served on all three levels of teams within the building, which provided the team with the advantage of avoiding noticeable ambiguity. The capacity to understand information or interpret an action was worked out by the team member before it got to the grade level. She had direct and constant access to the principal and the other content area vertical team leaders, and she controlled the agenda for the social studies vertical team meeting to address issues there as well.

Meso Level: The 3rd-Grade Team was insulated from having to make decisions about allocating and managing meso-level resources. The Lead Team, guided by the principal, decided which resources from outside of the school would impact the school when the team members had a choice. When the district mandated utilization of a resource, the Lead Team decided how it would be filtered to the vertical and, ultimately, the grade-level team.

The 3rd-Grade Team and the other grade-level teams had the responsibility of scrutinizing the school monthly assessment questions. Concerns the team had about the specific wording of questions were given to the grade-level team member who represented that content area on the vertical team. The 3rd-grade team leader said the following about micro level tests:

> If there was a question that a lot of your kids had difficulty with the way it was worded, you can voice your concern to the vertical team, and they might decide to do away with that question, or reword that question, or put a better graphic on the question so the kids won't have that much difficulty answering the question.

In contrast, the 3rd-grade team members treated the district quarterly tests as immutable and out of the sphere of their influence. The district quarterly tests were mentioned in the context of student results. The monthly tests were seen as assessments that the team members could shape as the school year progressed.

Macro Level: The 3rd-Grade Team members did not often mentioned the SOL test or national test data. SOL tests were mentioned only when discussing scheduling, professional development, or using them as a tool to guide the implementation of monthly tests. The team members acknowledged the need for a professional development activity that would bolster the capacity of the teachers to teach geography. Improving scores on the geography assessment became a goal for the school's *Accountability Plan,* The team member, who was also the social studies vertical team leader and a member of the lead team said, "[The principal] wanted a professional development activity, because our weak strand for SOL tests last year was geography, and so we need something. Geography [is our goal] for our *Accountability Plan*."

The other area where SOLs were mentioned in the 3rd-grade team meetings was with formatting monthly tests. The team leader said the following:

> We try to have our monthly assessments aligned to how the SOLs look. The teachers don't know what the SOLs will look like, and because the Communication Skills Specialist knows what the test looks like, she'll know how to word a question so it won't

be a child's first time seeing that type of question. Students will have repeated attempts or chances seeing that type of question.

The 3rd-grade team leader expressed uncertainty when speaking about the alignment of the monthly tests to the SOLs. The grade-level teams made a commitment to closely scrutinizing the monthly tests for reliable and valid questions and providing feedback to the CSS and the ISS, who were the point teachers for test construction. The team members relied on the CSS in particular to understand how to design monthly tests to mimic quarterly tests and, ultimately, align to the SOLs. The team leader said, "She'll know how to word a question so it won't be a child's first time seeing that type of question."

Overall, the 3rd-grade team focused on classroom practice and discussed what seemed to work and not work. Scheduling of events was a priority and experimentation with instructional strategies was the main work of the team.

Comparison/Contrast Across Groups

Although each of the teams examined through this research study had its own areas of responsibility and influence, the Lead Team, The Communication Vertical Team, and the 3rd-grade Team members displayed overlapping characteristic when it came to setting priorities, gathering and relying on information, and making decisions. In contrast, each team displayed unique characteristics defined by the immediate concerns of the members and the specific responsibilities of the team as a whole.

Principal power was recognized by the three levels of teams and expressed through the agendas set for meetings. It is also manifested through the team leaders who referred to the directives and wishes of the principal. Principal power seemed to be used as a tool to focus the each team on student performance. The intense focus on numerical data and pass/fail percentages

left little room for discussion about the personal or familial obstacles that may contribute to diminished student results. The teacher leaders acknowledged the amount of responsibility the principal had and used that to justify her power. All three teams operated under the principal's articulated priorities to implement RTI, base decisions on measurable data, and use small group and one-on-one instruction to increase student test performance. Within the Lead Team, the principal set the agenda and made final decisions, even if the final decision was to summarize acceptable options presented by the teacher leaders and allow the teacher leaders on the team to choose one as a decision. Within the Vertical Team, the team leader, as member of the Lead Team, was knowledgeable of the principal's wishes and mandates and did not stray from the overall vision. Occasionally, the logistical details were slightly modified, and the team leader had the freedom to do that, but she would notify the principal of any changes. Within the 3rd-grade Team, one member (not the leader) was a member of the Lead Team and leader of a vertical team. She was trusted by her teammates, including the team leader, to be intimately familiar with the wishes and mandates of the principal much like the CSS.

The other key theme evident across the three teams was time allocation, usually expressed in terms of constraint and limitation. During one Lead Team meeting timely data collection and striking a "balance" among classroom instruction, resource time, physical education time, and RTI work was discussed. The principal mentioned the need to analyze data "faster for it to be meaningful." She was concerned about how long it took to collect data used to identify students needing instructional intervention. The Lead Team was kept "on track" by the principal to cover the data collected monthly, which was presented in three-inch binders for each grade level. The Vertical Team meetings were held during the hour before school officially started. A priority was to have a decisive agenda and tightly stick to it so the team members

received the information needed to effectively participate in the weekly 3rd-grade Level meetings. Each Vertical Team in the school had to make time for, at least, the dissemination of the decisions from the Lead Team meeting to prevent an uneven distribution of knowledge across the faculty. The 3rd Grade-Level team meetings were held weekly during the middle of the school day. It was essential that the meetings were not impeded upon by other school functions or issues that developed during the morning hours before the meeting time.

Within the themes which emerged from the data, some contrast was evident across the three groups. The Lead Team meetings were held during an entire school day, making the opportunity to explore emerging issues and work through various inputs before a final decision was made possible. Ironically, even though the Lead Team members knew the principal had the final and deciding word, it was the most collegial team dynamic observed. The team members freely shared opinions, made arguments, and corrected the principal when mistakes were made. There was a lot of laughing and the members socialized during the lunch break, which was ordered in by the principal. The team members knew they had influence and were respected (as derived from subsequent individual interviews). They did also know not to push their opinions or requests too far. The pitch and inflection of the principal's voice changed when she was ready to end discussion and render a final decision. It became higher and quicker. The other members accepted this and quickly moved to the next topic.

The Vertical Team was more formalized, mainly because of time constraints. The team leader's (CSS) agenda served as a type of checklist to be covered. There was time for clarification questions and a minimal amount of debate. The leader, however, communicated with most of the members formally and informally before the meetings and knew the main concerns and areas for clarification, thus saving meeting time waiting for those ideas to emerge.

The 3rd-grade team had a formal leader, who was knowledgeable and prepared, but the team had a de facto leader in the form of the member who served on the Lead Team (RET). The leader articulated the agenda items. In response, the de facto leader rattled off possible strategies to use to creatively cover the curriculum. She also provided updates from the Lead and Vertical Teams and addressed any testing concerns, per her interaction with the ISS and CSS. The team meetings were less structured than the Vertical meetings but were held within the same 45 minute to one hour time frame.

Although the team observations provided insight into how information was gathered and shared and how the decision making process was manifest in the school, the individual interviews were the primary data collection method to allow participants to explore and explain how they negotiated the educational environment as they made decisions.

Storymap: Principal

The principal was in her 14th year as principal of the research site school during the 2009-2010 school year. She is currently serving under the fifth superintendant of her career. Her school has garnered multiple state and national awards. She is highly respected by her supervisors and considered an effective manager and instructional leader throughout the district. Prior to selecting the research site, other building principals and district administrators were asked to name elementary principals they considered highly effective. Her name was consistently mentioned. All of the interviews with the principal occurred in her office. With a couple of rare exceptions, our interviews were uninterrupted. The principal was a dynamic, involved leader who questioned the factors that impacted her school through the use of data, classroom instruction, and district policies and mandates. She made it a priority to understand the people, information, and situations she encountered. She revamped the Lead Team and appointed new

leaders to the vertical teams during the 2009-10 school year in response to evidence of former team members undermining the confidentiality and integrity associated with candid conversations about personnel. She believed the actions of certain school leaders on those teams conflicted with her values and worked to demonstrate dysfunction and disagreement among the leaders. She researched the programs she approved to the point where she was the building expert for all school-wide initiatives. The principal tightly controlled decision making and problem solving for school-wide initiatives during the 2009-10 school year partly to reverse negative trends in the performance of the staff.

Table 8
Principal

	Principal Power	Resource Allocation	Student Performance	Ways of Knowing
Micro Level	• The force behind creating in-house monthly tests • Mandates type of data collection and format	• Pays teachers to provide additional student support • Assigns staff based on her understanding of student needs • Implemented Response to Intervention (RTI)	• Final decision on assigning students to support groups • Data driven: relies on results from monthly, quarterly, and previous SOL test data	• Relied on specialists to help interpret classroom events • Some team members have greater expertise • Collected performance data constantly • Formal and informal interaction with faculty frequently
Meso Level	• Used school success to prevent unwanted district programs • Got district data specialist to get quarterly test results quicker	• Enlists military members to help mentor students • Demands parents fulfill legal responsibility for educating their children	• Judges the quality of district quarterly test: uses the "good data" and questions the weak test data	• Concerned about lack of communication from district • Negotiates her interpretation of policies
Macro Level		• Used universal data to determine student support • Allocate Title I funding	• Required universal data (national tests) compared to monthly data	• Responds to state and federal polices after filtered through meso level

Micro Level: The principal required quantitative data formatted by content, teacher, and grade level. To contribute to the body of measurable student assessment data, the principal relied on the creation of monthly tests, which build upon weekly classroom assessments in each of the core content areas (English, math, science, social studies) to produce trends and patterns of student performance used to guide the implementation of intervention strategies. She described the genesis of the school-based tests in the following way:

> It has gone through a process. When we first started doing them, they were done by the grade level teams. We had Saturdays that teachers came in and were paid to work on grading assessments. But it's pretty time consuming, and it's hard to keep the quality and the rigor in the assessments. Over time we have gotten more specialists in the building, so that now we have a reading specialist, a math specialist, and a science resource teacher. They've been through some training on writing assessments, and they also take time to look at the released items from the state tests to make sure that we are patterning our CFAs [Common Formative Assessments] on the exact model of the state test.

Through the Lead Team, the principal analyzed data triangulated through school-generated monthly test data, district quarterly test data, and SOL test data. The results were used to determine which students were selected for additional remediation through the Response to Intervention (RTI) program at the school. After input from teacher-leaders and instructional specialists, the principal made the final decision about which students made the "cut" for additional support.

The principal put value on spending money from her budget on professional development. She recognized faculty members had varying degrees of expertise and experience. She said, "You can't tell teachers to do things then not train them how to do it. At this school, when we get new teachers in, the whole first quarter, all my specialists spend much more time with the teachers coaching then they do with students." She also uses the various pull-out

programs in the school (i.e. literacy and RTI) to assign teachers based on their demonstrated strengths to assist students. In addition, she worked with the Lead Team to develop after-school programs and paid teachers to work with students in their deficient areas.

When considering ambiguity, the principal devised structures within the school to allow her and her teams to understand and interpret information. She worked to eliminate ambiguity to the greatest degree possible. She relied on others to help her understand events within the school. She often asked what the specialists were seeing in the classroom. The principal continuously interacted with teachers informally and formally throughout the day to monitor classroom practices and to collect anecdotal data to supplement the measurable data she relied upon during the Lead Team meetings. The principal understood her role and the ultimate responsibility inherent with her position:

> I always want to make sure that whatever we are doing focuses on student achievement and what I believe gets us there. Because I have a vision and everyone needs to be in line with my vision because I am, in the end, the leader of the building.

Meso Level: One impetus for her spearheading the creation of in-house monthly tests was her desire to have student test data immediately. She said, "The district provides that data quarterly, but that's too late for us. We were ready to start our RTI intervention teachers the first week of October, and we did not have district data at that time."

The principal expressed a desire to have district-level data, as long as it was good data and it was timely to meet the needs of the school. At times, she was critical of the reliability and validity of the tests from the district. She said certain tests, such as the math quarterlies, were out of alignment with the curriculum pacing guides. They would test content that was not scheduled to be taught yet, according to her. She liked the English quarterly test and described her push to have it administered and scored as early as possible. She even enlisted the assistance of the

district data specialist to get scores to her immediately after the tests were administered in the school.

The principal was highly critical of district programs that are "pushed" on schools. Even when discussing "sorting" students for RTI, she expressed dissatisfaction with the math quarterly test. She said, "We sorted our kids based on the quarterly math test. That's really a bad test because there's so much on it that we haven't taught yet."

The principal had conflict with district staff over buying "prepackaged" programs:

> For some reason, LCD is in to buying package programs. So this year, were I to implement all the package programs they have bought, my first grade would be expected to implement new this year programs called "Making Meaning," "Being a Writer," and "Breakthrough to Literacy" from the English Department. And another program called "Destinations in Math" from the math Department. All of these prepackaged programs are over and above the adopted textbooks and programs currently in place. That's four new initiatives in First Grade.

She opted to only implement the "Making Meaning" program, and would "probably" implement the "Breakthrough to Literacy" program. Instead she took the initiative to decide on a program that fit her vision for what she wanted to see in classrooms. She said:

> We have our focus this year. Our big initiative this year is for the classroom Kagan Cooperative Learning. I paid, and I had the trainers out and we were all trained in its entirety. Any new initiative I do, my staff is trained. And they were trained during preservice week. And we are monitoring for the implementation of that. And that's our big initiative, along with the push of RTI.

When asked how she successfully decided to opt out of implementing programs mandated from the district level, she said the following:

> I've been pretty protected by my high scores. The fact that I had a little drop in my scores hurts me here. And I've had executive directors give me a little bit of a buffer, not just me, other high performing schools. The focus should be in the low performing schools. If you've got schools that are consistently scoring about 90%, then why would you go in and start [new programs].

She was excited to have state SOL money to help fund intervention activities for students in addition to the RTI. She started an after-school program. The after-school proved frustrating for her because the students most needing to work with were not being made to attend by their parents.

The principal was critical of the lack of district representatives to understand the programs they invested in and implications for schools, and she was dismayed by the uneven communication from the district. She said, "They think they know best. If they bought into this program, if they love the program, they may never have taught developmental reading but they love the program." She expressed concern that district personnel did not communicate with those in other offices and displayed fragmented, narrow thinking when deciding what the schools should. In the past, there was more of a focus on bringing into the school resources and support. Within the past few school years, more of her energy was spent working to keep programs she did not agree with out of the school and mitigate the impact of those initiatives mandated for school-wide implementation from the district or state.

Her uncertainly was usually expressed in terms of the unknown qualities and organizational fit of people. She recognized the professional development model in place at the school attracts teachers, and it develops teachers, who are subsequently sought after for instructional specialist and administrative positions in other schools. Her concern was the district bringing in staff that may not adhere to her vision or have the capacity to meet the expectations of the systems in place.

She also mentioned how she used leverage she had attained by being a successful school to deflect mandates she considered counterproductive to her vision.

> We look at what we are doing, and we try and see how we can integrate what central office is asking us to do. If it seems like it might be detrimental to our program, then I try

> and go up the channels to see if I can have some exceptions based on the fact that we have a consistent record of high achievement. It's a challenge.

In addition to the interaction with district representatives, the principal worked to enlist the assistance of parents to fulfill their obligations to participate in their children's educations by encouraging attendance at meetings and bringing students to remediation sessions outside the regular school day. She also used the prolific military community to serve as tutors and mentors to students during the school day.

Macro Level: The principal insisted on a school-wide adoption of the Response to Intervention (RTI) program. She described how it emerged and the major tenets of the program she incorporated into the school:

> Response to intervention, which of course the U.S. Department of Ed. has asked the states, directed the states to work on it. Every state department has it. If you go on every state department's web site, you can find it; there's a section on RTI. At [our school], we've been trying, starting last year, to [incorporate] it into our school. We were at an advantage because our school was already organized around a data driven decision making model. We already had functioning data teams who had already been using student data to inform their instructional planning and guide them in making the design of intervention programs to work with low achievement students.

The principal credited the implementation of RTI for boosting the performance of very low-level students. She said the use of national tests (as universal data provided through macro-level tests) was essential for "us to make sure we're really putting in pieces and making us more thoughtful." Her perception of how national tests could be used in the school evolved. She decided to use results of tests such as PALS an STAR to guide the development of tiered intervention at the lower grade levels. She required national test data to be used with school-generated monthly test data and quarterly test data to determine the achievement levels of students.

> We really look at it through a different lens to help us even more closely identify students in need of extra assistance in kindergarten and 1st beyond tier 2, so that we actually have 1st grade students who have the services of a tier 3 teacher now. We have tier 2 in kindergarten, which is really considered the breakthrough for the reading program. We started it this last year, and, for the first time, we only had maybe 3 students who did not make the benchmark for PALS in the spring.

The principal also said she was lucky to have Title 1, federal funding for schools with a significant population of students receiving free or reduced price lunch. The previous school year she received Title 1 money and added after school support for students for two days a week. Without the Title 1 money, she would not hold after school programs. According to the principal, she would not gamble with her general budget funding on parents not holding their children accountable for attending. In general, she worked to understand macro level policies as they were filtered through the district to the school. She expressed the need to understand the original policies to determine how the district interpreted them to accommodate local characteristics and personnel.

Summary

The principal understood her role and the ultimate responsibility inherent with her position. During meetings and during the interviews she described feeling ultimately responsible for decisions acted upon at the classroom as well as building level. She said she sought the input from the assistant principal and the teacher leaders in the building, and she used the information they provided to make the final decisions when they impacted school-wide procedures or policy. The principal expressed a desire to have district-level data, as long as it was good data and it was timely to meet the needs of the school. She credited the implementation of Response to Intervention (RTI), a three tiered support program, for boosting the performance of very low-level students. She said the use of national tests (as universal data provided through macro-level

tests) was essential for "making us more thoughtful." During her tenure, she has learned which "battles to fight" within the school and with the district. She used the current school year to restructure the grade, vertical, and Lead Teams by inserting new leaders to maintain control of processes she believed became dysfunctional during the previous school year.

Storymap: Assistant Principal (AP)

The assistant principal was in her 4th-year as an administrator. The 2009-2010 was her second year at the research school. The elementary school that served as the research site had one assistant principal. The assistant principal was the one member of the lead team who sporadically attended the Friday meetings.

Table 9
Assistant Principal

	Principal Power	Resource Allocation	Student Performance	Ways of Knowing
Micro Level	• Deferred to principal as school visionary • Principal as final decision maker in lead team meetings	• Allowed staff to operate in assigned roles • Saw self as the primary "manager" of programs • Coordinated summer school	• Relied on feedback from classroom teachers and specialists	• Relied on principal to make sense of information • Looked to those with "expertise" • Gathered all the documentation she could • If not all information was available relied on "good enough" data
Meso Level	• Principal intervened when conflicts were not handled at school level	• Constant parent contact, especially for SPED • Wants more parent support • Relied on parents	• Used district test to create student "profile" to monitor progress	• Prioritize information from the district • Worked closely with district for SPED guidance
Macro Level		• Managed implementation of universal test	• Managed implementation of universal test	• Difficulty interpreting federal guidelines

Micro Level: The assistant principal was not able to regularly attend the Lead Team meetings, because both administrators could not commit to spending the entire school day in the meetings. The principal made it a priority of hers to lead the Lead Team. The assistant principal had to serve in the capacity of school leader during those monthly meetings. The assistant principal was the one the office staff and teachers would bring issues to on lead team meeting Fridays. When she was able to attend the meetings, she would usually not be able to stay for more than 15 minutes at a time. By the February interview, the assistant principal became even less available to attend the Lead Team meetings, and viewed her role as the primary manger of programs in addition to instructional leader.

She was the administrator overseeing special education, and the topic of special education dominated our discussions. Although the principal was involved to a degree, it was the one area where the assistant principal acted most independently and was relied upon to be a subject matter expert. When she discussed special education, she used a whole-child concept to frame the data collection process. For her, with special education, teachers' observations seemed more important than with the regular education students, where quantitative data guided decisions about intervention support. The assistant principal said the following:

> When we are looking at the true performance [of students], a lot of times some of the members of the team had the opportunity to work with the child. So their feedback from what they have observed also is considered in our decision making along with the data. We look at prior things that we have put in place for the child to see if we have provided every opportunity possible for that child to meet some form of success. If not, then we look at it even closer to see if maybe we need to take a different approach. We think about the different ways we could assist. We see that we have exhausted all the areas, then we come together and consider maybe taking an even closer look by bringing the child before the child study team [to consider eligibility for special education services].

In the spring, her attention turned to the task of coordinating the upcoming summer school program and managing the variety of tasks required to "close out the year." She was tasked with being the summer school principal a month later than she was comfortable with and was working to coordinate teachers and students from four other schools who would use her building as a summer school hub. She talked of logistics and practicality:

> I've been working on the summer school program scheduling, and this year for the first time, the school will be housing 5 schools including [ours], Trying to schedule and adding on more teachers then we ever had [is difficult], because now we have 17 teachers as opposed to four. It's just the logistics of it. We have pre-k through 5 [this summer], so we need to know where the pre-k class is going to be. Most of the schools are not two stories [like ours], so we are having to make sure that we house students in the third part of the building. We didn't want to put our kids upstairs. We want to keep them down, because there is less chance of accidents.

To accomplish the job of multi-school coordination for the summer, the assistant principal frequently contacted administrators from the other schools to work out details. She communicated with district representatives for clarification of guidelines and for validation for her plans as they evolved.

The assistant principal did not express concern for managing ambiguity. She had the principal above her to assist her with making sense of information by using the resources at the principal's disposal. The principal had the final decision making authority for the school and extended that to the Lead Team meetings.

The assistant principal expressed her belief of handling of complexity by having "someone with expertise that is well versed enough to be a representative" for each content area. The subject matter experts served the role of being able to make decisions that benefitted the entire school, according to her. She valued the lead team's role within the school as being the

organizational body that had people who "look at the school as a whole, not just one part of the pie, but the whole pie."

Overall, she seemed to engage the decision making process inductively through the details. She accomplished goals by figuring out what needed to "get done." When all information was not available, she relied on documentation she considered "good enough."

Meso Level: During the 2009-2010 school year, her role as the administrator in charge of special education for the school became unusually demanding. She was the school representative for a due process hearing, which resulted from parents of a transfer student accusing the school of being legally negligent in the administration of services. The difficulty, according to the assistant principal, was that the federal guidelines "had so many grey areas. One or two words could have been interpreted two different ways." In addition, the federal guidelines that the district provided "may not be as current as they could be." She had to decide what documentation she would choose to "make our case." Her concern was deciding when she had "enough" information. Eventually, she created a packet of documents and successfully represented the school as it was cleared of any wrongdoing.

The assistant principal mentioned her contact with parents more than any other participant interviewed for this study. She described not having as much parental support as she wants, especially when the school offered additional support after school.

> We have to receive authorization from the parent. If the parent wishes not to participate, which so often happens, [we cannot work with the student]. If we know that the program will benefit the child, and it is decided as one of the interventions we would like to put in place for the child, the parent has the option to opt the child not to participate. This is what [impedes the school] being able to offer what we need to offer to the students.

She expressed satisfaction with her relationship with the parents of the school's students. She said she was surprised how cooperative parents were in negotiating beneficial outcomes for

the student and the school. She said, “I’ve been very, very lucky in having parents who were very knowledgeable and had a great understanding of procedures.” She added that there were a “couple of behavior situations this year that really have required a lot of attention and a lot of monitoring.” The parents in those cases were supportive of her decisions, according to her. Those parents worked “with me to make sure that we could sort of get the behavior under control.” The assistant principal utilized anecdotal evidence along with district test data to create a student “profile” to assist her with monitoring student progress.

In May, the upcoming summer school seemed to occupy her more than other tasks. She seemed to be more anxiety about managing that program than with any other task or program she discussed. There were new elements to put in place that had not been done before. Most of the guidance and directives for the summer program came from the district.

> This is the first time the district has put it in place. Because of the reduction [budget cuts in staff and program], we’re trying to utilize one facility, and our kids would not be provided transportation, but the other schools have all their students report to their school and there will be one bus assigned to each school, and they will be transported over to us.

To help mange ambiguity she had instructional leaders and the special educations teachers under her to help her gain clarity by gathering information from their respective district office representatives, and prioritize information constantly flowing in from the district. The assistant principal did explain how sometimes, and with some district offices, she “had to call for more clarity because of the way something was written. I wasn’t quite sure.” If she could not successfully negotiate understanding or compromise with the district, she relied on the principal to intervene.

Macro Level: The assistant principal discussed managing the implementation of nation tests as one macro-level responsibility. Special education remained her primary focus, however. She mentioned referring to federal guidelines for special education by referencing the U.S.

Department of Education's web site. She mainly relied on the district to "filter" the guidelines and mandated procedures to the school leaders. She acknowledged the school district often required stricter compliance deadlines or additional documentation beyond the federal requirements; therefore, it "was best" to follow district rules.

In the assistant principal's role, especially as the special education supervisor, uncertainty was unavoidable. There was difficulty interpreting federal guidelines, especially when competing interpretations existed at the state and district levels. She handled it by understanding the need to gather all of the documentation that can reasonably attained and having to use what she had. Her decisions came from the documentation she had, which, if not optimal, would have to be "good enough." In one specific and complicated case which combines micro, meso, and macro environmental factors, the assistant principal had to take the leadership role in the decision making process, when it went beyond the authority of the special education teacher.

> Based on the information provided by the parent, according to the information provided by the classroom teacher, and according to the guidelines I had to step in, I felt like I took a stronger approach in looking at it from a different standpoint. According to the federal guidelines, it was a very gray area in which the child would qualify; however, according to the other documentation from the classroom teacher, and also the information that had been brought in by the parent, I made a decision. I use my own rules of common sense [when handling uncertainty].

Summary

The assistant principal was not able to regularly attend the Lead Team meetings, because both administrators could not commit to spending the entire school day in the meetings. She was the administrator overseeing special education, and the topic of special education dominated our discussions. She mainly relied on the district to "filter" the special education guidelines from the macro level. She acknowledged the school district often required stricter compliance deadlines or additional documentation beyond the federal requirements; therefore, it "was best" to follow

district rules. The assistant principal mentioned her contact with parents more than any other participant interviewed for this study, and she expressed being pleased with the relationships she developed with parents during the school year. Overall, she seemed to engage the decision making process inductively through the details. She accomplished goals by figuring out what needed to "get done."

Storymap: Communication Skills Specialist (CSS)

The Communication Skills Specialist (CSS) was a teacher was new to the position and the school during the 2009-2010 school year. She was in her 6th-year as a teacher. In the position, she served as the primary support teacher for all English and language arts. The position required her to have a reading certification. An administration certification was not required. We met in her office, which was connected to the gym and required walking through the children at play when we met. We usually met during the last half hour of the day and continued after school. Our interviews were often interrupted by staff members needing her assistance.

Table 10
Communication Skills Specialist (CSS)

	Principal Power	Resource Allocation	Student Performance	Ways of Knowing
Micro Level	• Principal relied on her to monitor classes and suggest professional development	• Scheduled monthly tests for English	• Wrote monthly tests for English • Scored tests and collected data for lead team • Provided RTI across grade levels	• Realized need to "raise awareness" of vertical team needs across grade levels • Had to learn job and do job at same time
Meso Level	• Principal intervened on behalf of CSS when conflict with district developed	• Primary manager for ePortfolio program • Used district electronic data collection program (D2SC)	• Resource for teachers to help increase student skill master on quarterly tests	• Felt district did not solicit feedback: one way flow
Macro Level	• Principal made daily remediation of weak students priority before SOL testing	• Priorities aligned to state tests (SOLs), especially in the Spring	• Use SOL test data to make instructional adjustments during summer	• Wait on SOL test data to make adjustments

Micro level: As part of her role as the communication (English) vertical team leader, the CSS devised the monthly tests for English, which vertical team members administered at their respective grade levels. She scored tests and collected the data for the lead team. She also worked closely with the ISS to provide RTI support for students across grade levels. As a first-year CSS and new to the building, she described having to learn her job and do her job simultaneously.

The CSS further described her job as having multiple roles in the area of utilizing student assessment data. Based on individual classroom teacher data from the monthly and quarterly reports, one role was to work with teachers to identify growth areas and provide professional development for them in the classroom by modeling lessons. Integral to identifying teacher need was building relationships of respect and trust with teachers who would ask for her assistance In addition, she used classroom observations and student test performance data to approach teachers with ideas for improving classroom instruction. She seemed inclusive and open to feedback and suggestions from those she offered to help or was directed by the principal to help.

Another role she assumed was to create data by scoring monthly assessments and entering them into D2SC. She was responsible for packaging and distributing the data packets to the teachers. She collected and reviewed the data from D2SC, and she created the charts for the lead team meetings. The CSS mentioned managing time constraints in the context of testing and adapting to the schedules of others. She described a concern that was brought to her attention at the vertical team meeting the week before our interview:

> They've been talking about is the amount of time in instruction that's been lost due to monthly assessment and weekly assessment. If students are receiving instruction on the days they are having monthlies that are a quarter of a month where instruction is lost. We

> agreed on some guidelines, and it turned out that the weeklies that the teachers give in preparation for the monthlies are also encumbering a lot of what should be instructional time. As a result, we decided that the weekly test that they are giving in all subject areas needs to be no more than 5 questions, and, for the content areas, they should encumber no more than 15 minutes of time. For reading, it could take up to half an hour.

A different type of time issue involved how long teachers perceived students would "be able to sit" for testing. The CSS learned teachers were dismantling monthly tests to chunk the exposure students had with reading passages. How the tests she created were manipulated for classroom use became a concern. She had to direct the 2nd-grade teacher to not pull apart the monthly tests and give it to students one passage at a time. She had to work to convince the 2nd grade teachers that breaking the passages apart was hurting the test taking ability of students. The teachers needed to help the students build stamina and give them the practice, so they can pace themselves. The teachers were trying to not overwhelm the students. The CSS was concerned because "we noticed in 3rd grade the kids don't have endurance on the SOL tests. They do really well on the first and second passages, and then on the 3rd passage, they get lazy and increase their number of errors.

The CSS was concerned with minimizing ambiguity for her vertical team members. She made it a goal for the next school year to "raise the awareness" of her vertical team members about the needs of students in successive grades. She wanted each grade level to build upon what was done at the lower grade and have the lower grade teacher prepare students for the next grade by eliminate the need for re-teaching and "backtracking."

She expressed the belief that it was important to frame her ideas and even her differences of opinion with the principal in terms that seem to align with how the principal thought. At times, she would compromise part of what she brought to the principal's attention, or she would rely on empirical evidence and justification to present a potentially radical idea. She said,

"Otherwise you're going to be running against a brick wall. I've also learned to frame things in a way that it may appear to kind of jive more with what she thinks, but the underlying thing is still what I want." The CSS described how she used the Lead Team meetings to participate in the collective information sharing, yet used that time to process her own thoughts. During the meetings "you don't think of something until you've processed it a little bit. And I have processing time when the other [members] are talking about the other subjects; I can of sit and think about my own" responsibilities and concerns.

Meso Level: The CSS worked to mitigate the impact of the district-based e-Portfolio program. At the end of each quarter, the e-portfolio was updated by teachers with the reading assessment data for each student. In conjunction with the compilation of assessments, students took the District Spelling Assessment (DSA) The CSS was concerned that the DSA, which was designed as a benchmarking test, was entered into the e-Portfolio as part of a grade that counted as much as 80% of a student's Reading grade. In this situation she engaged the principal to express her concerns. She explained the issue to the principal, who agreed the district grading scale was detrimental to many students' grades. The principal appealed on behalf of the CSS to no avail. The ePortfolio program and grading weight remained intact in the school.

Even though the CSS was overall complimentary about the reading quarterly tests generated from the district, she noted there were some serious errors. She also disagreed with the grading of the tests. She thought the tests were serving more as a benchmark to check student progress rather than a test of current knowledge or skill, yet they weighed as a significant percentage of students' grades. She said, "So whether or not we agree with the test or agree with how they are graded, we have to do that. Otherwise, the students are missing part of their grade."

The CSS discussed the format of the district quarterly tests and her concern with the school and district alignment of curriculum and pacing of instruction in the classroom. She described the quarterlies as containing "multiple passages with up to 40 or so questions." The reading test "is the one area where the quarterly probably is the most accurate." She said the vertical team members found that in some of the other content areas "either our pacing doesn't match the districts, and that reflects in our scores, or there are questions on there that don't match the district's aligning." She used the district's electronic data collection system (D2SC) to collect and mine data for use at the grade, vertical, and school levels.

The CSS expressed a belief that complexity is heightened from a lack of thoughtful dialogue between school members and district offices. She stated problems arise with coordinating the implementation and monitoring of programs because the district did not solicit nor welcome input, according to her experience at district-level meetings.

She found information from the district was often incomplete or unclear. As a result, she interpreted it the best she could, filled in the gaps with her own judgment, and relied on the principal to give direction when a void existed in district procedures.

Macro Level: The CSS said she used the district quarterly tests as a benchmark leading to the SOL test. The quarterly tests were supposed to show student growth and serve as a predictor of success on the state test. She described the quarterly test as static. The "don't get harder. The passages aren't any easier at the beginning of the year than they are at the end."

The CSS also acknowledged the tempo of her work day and her priorities were partly dictated by the SOL tests as the year progressed. She said the following about working with students:

> Working with students [is] definitely going to pick up as we get through the year, because I'll start pulling some more intervention groups to get us ready for the SOLs. She's [the

> principal] told me from the beginning that that will be my focus as we get deeper into the school year and we identify those kids that need extra support.

A discussion for the lead team centered on adjusting curriculum because the "Virginia Studies SOL test had changed." The lead team decided to take the concern to the social studies vertical team. The team members were asked to examine the new material against the previous tests to identify similar terms that needed to be taught to the 2nd-graders in preparation for the 3rd-grade SOL test.

The CSS discussed how each assessment leading up to the SOL tests were designed to mimic the testing format and standards the students would experience on the SOL tests. Each summer, she used the SOL test data to adjust the school monthly tests she created. She adjusted terminology, formatting of question stems, the number of distracters, and ensured the skills tested throughout the year were those tested at the state level.

> The point of the monthlies is so we can monitor that we are successful when it comes to the SOL tests. That's why I've made a lot of changes to the monthlies to make sure that they kind of mimic what the SOL questions look like. We can help prepare the students [to be ready] when they see these tests at the end of the year.

Summary

As part of her role as the communication (English) vertical team leader, the CSS devised the monthly tests for English, which vertical team members administered at their respective grade levels. She expressed the belief that it was important to frame her ideas and even her differences of opinion with the principal in terms that seem to align with how the principal thought. The CSS expressed a belief that complexity is heightened from a lack of thoughtful dialogue between school members and district offices. She stated problems arise with coordinating the implementation and monitoring of programs when the district did not solicit nor welcome input. She said she used meso level assessments as a benchmark for students as they

prepare for the state SOL tests. The quarterly tests were supposed to show student growth and serve as a predictor of success on the state test. The CSS also acknowledged the tempo of her work day and her priorities were partly dictated by the SOL tests as the year progressed.

Storymap: Instructional Skills Specialist (ISS)

The ISS teacher worked out of an office connected to the gym and next to the CSS. She was in her sixth year of teaching. Although an administrative certification was not required for the position, she had a master's degree in educational leadership and a school administration endorsement on her state license. Two years were as a first-grade teacher, three were as a literacy teacher, and this school year was as the ISS. As the ISS for 2009-2010 she was a member of the Lead Team and served in the role of testing chair. She attempted to schedule time to attend all of the vertical meetings and as many of the grade-level meetings as possible. The ISS also served as a mentor to the Social Studies Vertical Team and the Reading Vertical Team leaders, who were new to those positions during the 2009-2010 school year.

Table 11
Instructional Skills Specialist (ISS)

	Principal Power	Resource Allocation	Student Performance	Ways of Knowing
Micro Level	• No set schedule. The principal's priorities were hers	• Primary contact for collecting, organizing, packaging school data • Choose and provide certain professional development	• Used school test data to determine student support • Develop small group "pull out" intervention from classroom observations	• Tough making decisions for pre-K through 5th
Meso Level	• Principal intervened on behalf of ISS when conflict with district developed	• Primary contact for collecting, organizing, packaging district data • Decide when to ask for district support for professional development	• Used district test data to determine student support	• "Explored" for causes of students performing poorly on part of quarterly test • Not "in the club" at district meetings: felt out of the loop • As new test chair sought clarification "a lot"
Macro Level			• State tests data used to make instructional adjustments	

Micro Level: The ISS relied on her constant interactions with students, teachers, and administrators to gain the knowledge and capacity needed as a first-year instructional specialist and testing chairperson. She said she had no set schedule, and the principal often set her daily priorities for her. Before team meetings and before (and often during) our interviews, she talked in person or on the phone with a wide spectrum of student and school personnel. The benefit for her was she had a keen awareness about what was happening in classrooms from kindergarten through 5th grade. During the 2009-10 school year she became concerned when the kindergarten teachers seemed to take an unusually long time to administer a 20 question test to their students. She said:

> I didn't know how they're assessing kids down there in math. They said they've never given them a test all year. I asked if we could maybe move to a math monthly with them next year and see how that goes and then maybe we might decide from there to do science and social studies. At least there's a starting point to get these kids used to it, because when they get to 1st grade the first month they have a 10 question test in every subject that's multiple choice, and that has got to be overwhelming if you've never taken a test before.

The ISS negotiated with the teachers to give the kindergarten students three questions for the first three months. The tests would have five questions until May. For the last two months, the students would take an eight question test. She would seamlessly shift from working with adults across an entire grade level to addressing the needs of individual students.

The ISS used monthly test data to inform the plan she was creating for one student as part of the RTI program. She described how she would approach working one-on-one with a student who was already receiving tier 3 support:

> Those tier 3 kids, they're getting a literacy group, they're getting a group from the classroom teacher, and then they have that open block of time. You only have like 20 minutes to get your hands on this kid. [I pulled] off of D2SC [the district's computer-based assessment database] item analysis for multiple tests to compare and see her performance over the past four months. She missed author's purpose on every single test,

> so I'm going take the first three days and put passage after passage in front of her, have her read them, and give me the author's purpose. Then the next day we're going to maybe do summary [which is] something she had trouble with. We will work on summary for a week. It's just [a way of] getting in quickly.

The ISS was concerned with scheduling time to administer and score the various school and district tests, scheduling resource teachers to pull groups of student for reading and writing support, and scheduling her part of the RTI program. She was concerned because it came up in the lead team meeting that no one was available to work with the 16 students that she and the CSS eventually supported. She said she knew she was going to give up "a chunk of my personal time and my planning time." In the meeting it was suggested for the CSS to work with the lowest eight students, as it concerned English. The ISS said, "But then there were eight kids right above them that were still struggling, so it was logical that I would pull them."

With school-wide testing, the ISS had to deal with staff members who had different ways of approaching the duty of test proctor. Based on the years of experience the staff had, based on their interpretations of the role of a test proctor, and based on their work ethic, the ISS faced multiple variations in testing procedures, when, in fact, every test site within the building should be homogeneous. She explained her recognition of the problem and the solution to the variations she will implement in the following years in the following:

> I think the training of the staff [is the key]. I have to make sure everything is written multiple times, remind them multiple times, and be aware of who is proctoring at each location. Some of the proctors we had were very, very strong. All of our veteran proctors that had been here a long time were in 5th grade. They know everything. All of the proctors in 3rd grade were new. That's where I feel a lot of problems occurred. Had we split them up more [it would have been better]. We used the pre-K paras [teacher assistants] in 4th grade, and I feel like they really don't really care.

Overall, she described her role as that of "ensuring that students are being taught." If the principal and the assistant principal were not available, the ISS served as the acting building

administrator. She had an endorsement in school administration, which was not necessary for the position to which she was assigned.

Meso Level: The ISS had to address the issue of the kindergarten students being unskilled at test taking, because the district required kindergarten teachers to administer a 20 question quarterly tests for which "the teacher reads the question and the kids answer." The students then have performance tests that have to be done one-on-one, and then they have an exemplar. She said the "the kids have never done and an exemplar. A writing exemplar is in their roadmap. They'll have to do a writing exemplar every two or three weeks."

The ISS discussed the difficulty she had with the district office staff when it came to the district releasing information and resources to the school in a timely way, especially when the information was new or different. In this situation, she relied on the principal to intervene and utilize her contacts at the district level. The principal was able to work with a member of the district assessment office to expedite quarterly test results to the school. As the testing chair, she was frustrated with having to administer the quarterly test when the following situation arose:

> There's all this stuff coming from different departments downtown. The left hand isn't talking to the right hand. These instruments that were given to us [for the quarterly] are graphic organizers; we're testing a kid on a graphic organizer that we just saw a week before. We haven't been able to prepare them to read a story, and use that specific graphic organizer. Some of our kids were confused about how to use the graphic organizer. We had to train them how to fill out that particular one, and that came out as 80% of their grade.

Earlier in the school year, she took time to explore possible causes of individual students performing poorly on quarterly tests. As she "dug deeper" into the quarterly results, she noticed certain students missed questions at the end of the test after performing well on the other parts of the test. The lead team members agreed the tests should be divided into two parts.

The ISS was in her first year as a school testing chair, and she expressed anxiety about not understanding all of the testing protocol or the way district tests did or did not align to pacing and curriculum guides. The district had multiple versions of the kindergarten and 1st-grade pacing guides available. In the third quarter of the school year, the ISS and the teachers faced a dilemma when they realized they planned at the beginning of the year with an outdated pacing guide. Before realizing the mistake, the ISS could not understand why the third quarter spring assessment contained questions about material not taught until the fourth quarter.

The ISS, as a new school-wide specialist and new testing chair, spent most of the school year managing ambiguity, uncertainty, equivocality, and complexity as much or more than any other participant. As she worked to manage all of her responsibilities and develop knowledge to gain capacity as an ISS, her frustrations were made evident.

> With Title 1, there's a whole bunch of reports that I do. There's a school-wide report that's 50 some pages long. They give us plenty of notice, but I had turned it in, and I had made it look like ours from the year prior because that's all I had to go off of. [The district representative] sent it back and said [most] of it is wrong. She said, 'you should have known you can't use this.' I feel like I'll be better prepared to do all [I need to] next year. We had our end of the year lunch last week, and she told us to make sure all of our end-of-the-year reports are with me. I looked at the lady and said, 'what end of the year reports. No one has sent me any e-mails, nothing.'

The ISS tried to mitigate the uncertainty and took initiative to seek information. She attended each of the monthly test chair meetings held by the district. She said those meetings were where she received most of the testing information. In addition to the meetings "there were a lot of making phone calls or sending e-mails for help or clarification." She was responsible for collecting, organizing, packing, and accounting for all testing required by the meso or macro levels.

As the school's instructional leader after the administrators, the ISS was tasked with identifying professional development needs and requesting support for teachers from the district

when she decided it was warranted. She was also an integral part of the Lead Team when it came to analyzing student test data to determine the type of additional support needed and if additional support was needed at all. She examined the data for explanations when students performed poorly on tests, usually the district quarterly tests.

Macro Level: The ISS attended test chair meetings at the district level which covered local and state testing. The district views all local testing, school-based tests and district tests, as preparation for the state SOL tests. Emphasis was put on the length, the formatting, and the delivery of the tests to align to the SOLs.

The ISS also described feeling anxiety about the SOL tests as a first-year testing chair. She said, "At the testing meeting, they kept terrifying us [by saying things such as] if one of you opens the first packet of tests, then you have 30 minutes to start testing everywhere!"

According to the ISS, there existed "a lot" of conflict on the vertical teams during the previous school year partly driven by the pressures teachers felt to have their student perform well on the SOL tests. The later in the school year it got, the more teachers with SOL courses fought against school-based initiatives. She said it was difficult managing a team, which she did during the previous year, and making a decision for pre-kindergarten through 5th-grade teachers.

> The pre-k teachers might say 'well, we want to do this writing program in the auditorium and we're going to have two kids and their all going to make their own books.' The 5th-grade teachers are saying 'we're in the middle of getting ready for SOL's; we don't have time to do that.' So there's always going to be some discussion. But you kind of just have to really talk it out and try to see things from each other's perspective.

One way the ISS managed the complexity of her position was to decide what to ignore. She said the following:

> The week of testing, [we were] asked us to write an essay on the importance of instructional coaches in the building because we had had professional development on instructional development. The week of SOL [testing], she's asking for an essay. Of

> course, that went right to my do later box, where it remains. I'm thinking of SOLs this week, I'm not thinking write an essay for you.

Summary

The ISS relied on her constant interactions with students, teachers, and administrators to gain the knowledge and capacity needed as a first-year instructional specialist and testing chairperson. The ISS, as a new school-wide specialist and new testing chair, spent most of the school year managing ambiguity, uncertainty, equivocality, and complexity as much or more than any other participant. Overall, she described her role as that of "ensuring that students are being taught." If the principal and the assistant principal were not available, the ISS served as the acting building administrator.

Storymap: Regular Education Teacher (RET)

The regular education teacher (RET) was in her fifth year at the school chosen for this study. She spent her first year of teaching in another state. She was in the unique position of being a full-time classroom teacher, who led a vertical team, and was the only classroom teacher serving on the lead team. The RET was also voted by the school faculty as teacher of the year for 2009-2010. She was chosen by the principal to serve as the only classroom teacher on the Lead Team. The principal chose her because she had the respect of the faculty as a masterful teacher, a passion for children and the profession, and the willingness to "speak her mind."

Table 12
Regular Education Teacher (RET)

	Principal Power	Resource Allocation	Student Performance	Ways of Knowing
Micro Level	• Principal gave her a "voice" by appointing her to lead team • Principal gives "freedom" to tweak curriculum	• Her time management was main concern	• Decided team would implement monthly projects done at home by students • Concerned with student creativity	• Questioned validity of monthly test • Carried knowledge across three teams
Meso Level	• Worked closely with principal to change district procedure	• District directed structure of time usage	• Vocal about district test quality and formatting	• Used district data collection tools • Goal to "bring back" information from district events
Macro Level		• Accreditation based on English and math: no tier 3 RTI for science and social studies	• Designed activity specifically for SOL success	

Micro Level: As member of the faculty who represented teachers at the highest level within the school, the RET was intense in her belief that she needed to gain as much information and knowledge as she could manage. She was opinionated and had no reservations about making decisions when she saw a void in decision making at any level. In one example, the instructional capabilities of teachers were being questioned by the principal after reviewing test data. The RET wanted it known in that particular case, the test, not the teachers, was the issue.

> On this past month's reading assessment, the students did horrible. But this is the fourth year I've given this test, and my students have done horrible on it for four years in a row. It's a reading assessment; the whole grade level has done horrible on it four years in a row. So I went to the person that's in charge of our reading department. There's different students, different teachers who have given this and they've all bombed it. From my point of view, this is not a teacher issue or a student issue. I really feel like this is a testing issue. This test is incredibly too hard for these students. It's way over their head. It's got too many inference questions. It's just too difficult for third graders at this time of the year. So they took our considerations from the third grade point-of-view, knowing that I know the students. And next year it's going to be thrown out. They're not going to use that test anymore

The RET described how she used a district-level data collection tool to present information to the social studies vertical team. She said, "We use the D2SC program, and that data is made available right here in the school." As the lead social studies teacher she received each grade level's data. When she held the vertical team meeting she made the following point about using the district level data:

> I've already discussed it within the lead data team. I already know everything. I already know their percentages. The point of that meeting is not for me, because I've already been over it. The point is for each grade level's teacher to share their strengths, their weaknesses, and if anyone within the team has an idea to try to help them out with their weaknesses.

The RET often discussed her initiatives to expand classroom instruction and incorporate creativity into the lessons. "I decided that I wanted to incorporate sending home monthly projects

for students to work on outside of the classroom. As a team, we all agreed that that would be something that would help build creativity and get the students working on skills outside of the class." Her intent was to help "expand their creativity and get them to think outside of the box." She was able to make the monthly projects a regular part of the 3rd-grade. Her motivation for the projects was partly from her feeling that "we don't always have the time, because we're on such a structured schedule, and we don't have time to do those creative activities."

Time constraints were a constant concern of hers. One issue was getting the extra help to the tier three students. When she pulled students out to prepare for the monthly tests, "they are missing what they have for this month." She also did not like "to pull them out of a resource like music, art, and P.E. "Using the data, she said that there exists a pattern that if a student is low in math, that student is also low in reading. Students low in reading "get three reading groups a day, and hour and a half a day." She wondered where "do you get the extra time" to support math instruction. She wondered if "new teachers are aware that they need to ask for help, and resource teachers get busy and don't necessarily know to offer."

The RET seemed fully aware of her impact as a resource to other teachers and her vertical and grade-level teams. In the following, she reflected on the positions she held in the school and the implications of her lead team membership:

> I'm not the team leader [for 3rd grade], but a lot of times, because I'm leader on other teams in the school, I'm thrown in a leadership position. A lot of times I probably co-share the position on our team just because of the other leadership roles I play in the school and the inputs that I'm able to bring. [I am involved in] the decisions that have been made higher up and I relay those to the team and help us stay on track with what the school's goal or mission is.

The RET addressed complexity by prioritizing her roles, with the classroom instructional role taking precedence. During the interviews, the management of time was a constant topic of

conversation. According to her, complexity existed through time constraints, and could be mitigated by reasonable scheduling.

> My dedication is in the classroom. I don't think my role has changed there. I speak up because I'm the only one in that meeting that's actually a full time classroom teacher and knows exactly what we're going through to try to stay on these monthly testing schedules. We're on a very rigorous schedule and we only have so much time to get the curriculum taught. The administration has set guidelines and deadlines for us to take these monthly assessments to get their data.

She was a vocal member of each team she led or served on, and team members on each team listened to her, and agreed with her often, according to the group observations and the own admissions of the other participants through the interviews. She bridged the gap between the administration and the classroom, and she served as a voice for the classroom teacher with concerns about administrative directives.

Meso Level: The RET had the advantage of working closely with the principal. When the RET and her teams wanted to make adjustments to a district procedure or guide, she served as the representative to negotiate change. In the following, the RET described, in general, how she worked with the principals to adapt the district's curriculum guides.

> According to [the district], we have a curriculum guide that we're supposed to follow and how it's supposed to be laid out. Our administration actually lets us get together as a team. And of course we're not going to veer too far off of that. But if we want to tweak it, or if we feel as a grade level that this just isn't going to work for us, she gives us the freedom to tweak it and make it work for us.

The RET expressed the need to sometimes not completely follow the district guidelines. She said, "The success we have achieved at [the school] hasn't necessarily come from always doing exactly what the district wants us to do." She was critical of the quality of the district tests and the strict time management guidelines for curriculum pacing.

Her unique positioning in the school gave her opportunities to minimize ambiguity by acting as a conduit for information and serving as the connection others used to gain information and make meaning from information they might not usually have access to.

> I feel an important role of mine is to bring back information to the school on what's going on in the district level with social studies and history. I feel that's the most important role, but I do see myself shaping ideas as the year has progressed with the knowledge I have gained having an active role in so many grade levels now that I'm in these leadership positions, I can see what goes on below it.

Macro Level: The RET mentioned one example when the use of student data was transformed into an activity specifically designed to increase SOL scores.

> We do SOL boot camp. At SOL review time the 3rd-grade tries to review SOL information and have students have fun with it. Students rotated to each 3rd-grade teacher's classroom to do a different activity on a different subject. That proved to be successful. The 3rd-grade scores "took a big jump that year, so [the activity] worked its way to school wide.

The RET echoed the sentiments of the CSS, the ISS, and the SPED Teacher concerning the pressures put on school leaders in the spring as SOL testing time approached. She stated the pressures were greatest for the upper grades.

> Especially in the upper grades. Kindergarten, they have their own set of testing. 1st-grade, they do testing too, but it's not as much pressure as in the upper grades, because, as you may hear her [the principal] say, she tracks our monthly data in correlation with the SOL test. Of course, k, 1st, and 2nd, they don't take the SOL test, so she starts putting that pressure on. After the first of the year, she really starts hitting hard on the correlation between the monthly success and the standards.

Summary

As member of the faculty who represented teachers at the highest level within the school, the RET was certain in her belief that she needed to gain as much information and knowledge as she could manage. She bridged the gap between the administration and the classroom, and she served as a voice for the classroom teacher with concerns about administrative directives. When

the RET and her teams wanted to make adjustments to a district procedure or guide, she served as the representative to negotiate change.

Storymap: Special Education Teacher (SPED)

The SPED teacher was in her fifth year at the elementary school in this study during the 2009-2010 school year. She had 10 years experience as an educator, and served at one other school. She served on the Lead Team, the Science Vertical Team, and the first and fifth grade-level teams. Her special education case load was comprised of students from the first through fifth grade. She did not have an office; therefore, we found space in a copier room/teacher lounge and in an office in the media center.

Table 13
Special Education Teacher (SPED)

	Principal Power	Resource Allocation	Student Performance	Ways of Knowing
Micro Level	• Attention given to areas principal identified as needing support	• Collected data from all grade levels	• "Dug deep" to identify student needs	• Relied on specialists for content strategies • Insight into pacing across 1st and 5th grades gained from being in many classes
Meso Level	• Principal intervened when conflicts were not handled at school level	• Brought in writers from community to assist student to edit writing • Sought ways to work closely with parents	• Examined data from the four core content areas on district tests	• Constant contact with SPED department for information and clarification
Macro Level		• Administered universal tests		

Micro Level: As a collaborative teacher in the classroom, the SPED teacher primarily worked with special education students. At the building level, through the lead team, her scope for intervention was broadened as she worked with the principal to identify students needing support and content areas needing alternative strategies implemented in the classroom. In the following, she described the variety of students for whom she helped plan assistance:

> We are looking at each individual child who is struggling, students who are making average to above average, and we're even tracking, with the gifted teacher, those pass advance scores for students who are exposed to the gifted classes. A goal is to increase the pass advance rate, too, instead of just being proficient

She further explained the real value of assessment data for her was in its ability to allow her to pinpoint specifically where a student needs help. She was one of the few school members who collected student assessment data from all grade levels. "The data, broken down into sub-strands stemming from broad skills, allowed her to go beyond those skills and "go deep into where they need specific support."

The SPED Teacher's explanation of the data collection process echoed the other participant's. The monthly and quarterly data was collected. Each student's scores in the school was reviewed for deficiencies. The level of RTI support was decided for those falling below the cut scores. She provided a unique perspective in the context of special education.

> Special education students historically have been considered the tier 3 students. It may only be tier 3 in reading or maybe only in math, depending on where the weakest area is. You almost want to say that there is another tier beyond tier 3, and we considered that. Special education students typically get all three tiers of reading intervention. They get the regular ed teacher, the special education teacher and the literacy teacher automatically.

The SPED Teacher described her primary role as **"**making the playing field level and even and being an advocate for the special needs students." She relied on the instructional

specialists in the building to help her understand and implement strategies to teach her students in all of the content areas.

She valued the resources provided by the specialists and considered the specialists resources as well. She said, I do rely on them for other strategies, for teaching strategies, for teaching activities, for their expertise." She found she had questions about how material in the curriculum could look as examples

The SPED Teacher managed complexity by asking questions of those she considered subject matter experts within the school. She compared how she handled situations when multiple tasks seemed to occur simultaneously now as opposed to when she was a novice teacher. She said, "I have been there. You don't want to ask for help, because you want to make sure everybody knows you know everything and you got it all under control."

Meso Level: The SPED Teacher described a conflict she had in determining who should serve as case managers for Section 504 plans in the school. Section 504 plans are part of the Section 504 of the Rehabilitation Act of 1973, and are used in school to provide classroom accommodations to students based on identified medical need. She said she had been approached innumerable times through the years to review Section 504 plans or serve as a case manager for Section 504 creation and monitoring. She said she will help in any way she can, but she wanted to be certain of the policy guiding which school personnel were part of the process.

> I just wanted to make sure that special education teachers are not the case managers for Section 504. The LEA [Local Education Agency representative, usually an administrator] is the case manager and it usually falls on the classroom teacher to implement. Technically, I don't have to review a Section504. And [the district] does not require me to review a Section 504 either. If I was ever challenged that it was my responsibility, I would be able to go back to that [district-level] person and say it's not my responsibility.

The SPED Teacher was concerned about the scores of her special education students and suggested reaching out to community members to assist her in the classroom. In the following, she described the impetus for bringing local writers into the school.

> My scores and I consider them my scores even though my name's not on anything, were not as high as I had hoped. I suggested to the team that I could invite some local writers to speak to the fifth graders to get them excited about writing and pull them through their own revising process, because they're having a hard time revising

She used similar outreach methods to bring other community members into school as well. She mentioned military members, who volunteer to tutor. we have some military. Two 7th-grade private school students came to a 5th-grade class once a week to "help out with anything that they can do: volunteer, work one-on-one with the kids, whatever we ask them to do."

The SPED Teacher was in the routine of seeking clarification and understanding from district office special education personnel concerning a certain evaluation process for students. She said, "I just didn't feel comfortable" with what she was being told at the school level.

The SPED Teacher discussed the multiple times when the principal had to act on her behalf and address the district head of special education to resolve a conflict when the school disagreed with the district's decision to not allow certain accommodations on state SOL tests based on the district's interpretation of state guidelines.

Macro Level: In addition to assisting with the administration of the SOL tests, the assessment she was most involved with was the Virginia Grade Level Alternative assessment (VGLA). The alternative assessment was for special education students who were deemed eligible for exemption from taking the SOL tests and were given another option to demonstrate certain skills as a pathway to earning a modified diploma.

> That comes up a lot, especially at the beginning of the year as to which students might meet the criteria, [Special educators] have to determine if they think they might have a

better chance to show what they know using an alternate assessment from the VGLA, and in which subjects.

The other challenge she had with helping her students complete the VGLA was understanding the "constant" changes to the format and what assessment tools can be used. She said, "It's always a challenge finding a variety of assessment criteria only to find out pictures will no longer be valid assessment tools in the upcoming years. That's hard because we use a lot of photographs." The SPED Teacher made it a priority of hers to eliminate uncertainty as much as possible. She reviewed state and federal special education laws and policies frequently. She asked questions about specific procedures for completing district-level processes, and, in general, she understood the system the principal developed at the school and learned who to approach as a resource when she needed guidance or information.

Summary

The SPED Teacher described her primary role as **"**making the playing field level and even and being an advocate for the special needs students." She routinely sought clarification and understanding from district office special education personnel concerning evaluation processes for students. She discussed the multiple times when the principal had to act on her behalf and address the district head of special education to resolve a conflict. The SPED Teacher made it a priority of hers to eliminate uncertainty as much as possible.

Compare/Contrast Across Individuals

As with the groups, similarities and differences emerged across the individual participants through interviews. As I spoke with participants during the semi-structured individual interviews I heard all of them (including the principal) frame all school-based decision- making in terms relative to the principal's values, ideas, and priorities. Although I did

not directly ask what power the principal had over school-based decisions, all of the participants referred to the principal as one who directly influences the selection of the topics open for negotiation. The overarching research question for this study concerned how environmental influences impact the factors individuals consider in a collaborative decision-making group. The results suggest the principal represents an environmental influence impacting decisions within the school and one who mediates decisions about issues coming into the school, primarily from the district representatives. It appears, at least at this elementary school level, the power the principal wields is not matched by the assistant principal. The school chosen as the research site had one assistant principal, who was responsible for daily operations and management of the school. She reported spending most of her time addressing special education issues. These responsibilities, coupled with her limited participation in the Lead Team meetings, mitigated and limited her role as a school-wide decision maker. Although she had the authority as a decision maker, she filtered her suggestions through the principal frequently.

The principal mandated which data the teams would collect, how the data would be packaged and presented, and how the data was to be used to support her vision and her initiatives, which was primarily the Response to Intervention program. The principal used phrases such as “I want” and “let’s make sure” to express her wishes. The vertical team leaders and the ISS often referred to what “she wants” and “had to check” to see if they could make certain decisions. Although the participants spoke in terms of gaining principal approval, the principal also asked for consensus. She would ask if proposed decisions “sound good” and if there were other thoughts or suggestions.

The principal power often seemed to be turned outward from the school. When conflicts arose concerning the implementation of pre-packaged programs, the principal saw her role as the

one who buffers the teaching staff from being inundated with what she felt redundant or ineffective programs that drained resources from in-house strategies that were working. The CSS and the ISS turned to the principal to address concerns they had with district representatives when they did not feel comfortable addressing them directly or when they felt they did not have the authority to do so.

A theme that resonated with all of the participants was that of time allocation. Time usage seemed to factor into decisions that required the participants to take action. Time allocation was manifested in two main ways: One was as a constraint to accomplishing desired tasks; the other was as an organizational tool to assist the instructional leaders with prioritizing when and how often they would work with certain students or work on certain projects.

"Teacher leaders," which include the specialists, were concerned about students missing instructional time for pull-out intervention programs. They were concerned with covering the curriculum content in time for the monthly and quarterly assessments. In conjunction with concerns about how time management impacts teacher interaction with students, the instructional leaders were concerned with how to collect and use data efficiently and effectively.

Each of the participants agreed they sought and considered the input of other team members when deciding on a course of action. Frequently, participants spoke of opening dialogues to give everyone involved a chance to be heard. The dialogues also served as an avenue for members to defer to those with subject matter expertise or in-depth knowledge of individual students.

The instructional leaders in the research school made direct connections between the student scores and adult effectiveness. The SPED teacher frequently used the first-person pronoun when referring to student performance. She would refer to "my scores." The RET

discussed “my kids” and “our team scores.” When the ISS and CSS referred to students they worked with through RTI instruction, they equated the time and effort they gave with the success of the students.

Among all of the participants, there existed a clear perception that the faculty was dedicated to the one purpose of increasing student test scores. In addition it was believed by the instructional leaders that the school leaders and teachers knew how to accomplish this goal. It was also believed that the district office representatives were welcomed and valued when they supported the work of the school. It seemed the school leaders did not often feel the district support was aligned with the practices and vision of the school staff and leaders.

The school leaders were attentive to the requests and the directives coming from district offices. They were compliant when they felt there was no other choice. When it seemed negotiation was possible, all other school leaders deferred to the principal to represent the interests of the school. The principal willingly accepted the responsibility of acting as a buffer between external influences and her idea about what was intrusive and regressive to the work of her staff.

The school leaders believed that state and federal policies were almost always filtered through the district to the schools and manipulated or adjusted to some degree. Special education law was a prime example. The district was described as taking the initiative to strengthen federal law to create policies that were then directed to the schools to enforce.

The primary contrasting characteristic among the individual participants was in the area of adult learning and ways of knowing. It was evident the participants sought out ways to increase their own knowledge base to contribute to discussions leading to decision-making. They

used knowledge attainment to suggest agenda items for meetings or to build consensus for team decisions that needed team unity for implementation. The CSS said,

> The principal will ask if there's any else we need to talk about. If there are any other concerns, and we generally will try to present the sides [to additional topics] and try to come to some sort of consensus. And then whatever that consensus is we take that and embody it and send it down to the vertical teams if we need to.

It seemed the group learning process observed in the teams researched for this study was a by-product of individual learning. The group did not collectively move from ignorance to understanding. In fact, the members did not always receive information at the same time. Rather the members of the group learned together as they acquired knowledge that was shaped and filtered through the principal's vision and values. This does not suggest the learning occurred simultaneously. What seems to be more the case is that individuals gained understanding on their own terms within a finite time frame. At some point during group meetings, decisions had to be made. The process of developing consensus ensued and decisions were reached. Not every member was vocal. Those who had the greatest understanding of the problem, had the most information, and had the most trust from the members of the group seemed to influence the path of the decision making. The data show that consensus was reached through a stable and supportive team culture; however, this does not suggest that each member of the team learned the same information or understood the same information in the same way. Team members were likely to trust individual representatives of the team over the idea of the team as a decision making body. The ISS said, "Everybody really talks things out and is willing to listen and see things from each others' point of view and really work well together." Although, once decisions were made, they became the will of the team.

Across Time

The group observation and individual interviews spanned the entire school year. Three of the four rounds of observations and interviews occurred during the fall and winter. The fourth contact occurred in May. Although slight shifts were evident among the groups, the group meetings basically retained the structure and interpersonal dynamic among team members. The meetings were not as long in May as they were in the early part of the school year. Student performance remained the focus across the three teams, but preparing students for state testing (SOLs) took precedence over all other concerns. The end of the school year closing procedures also began to emerge in team discussions. End of year reports, grading, and staff "check out" procedures were touched on in May.

The principal did not seem to evolve from the first interview. She learned effective strategies for implementing RTI, and she developed a sense of the changing district emphasis on budget cuts and personnel alignment to adhere to the state's Standard of Quality (SOQ), which recommended staff to student ratios. The assistant principal was focused on summer school and anxious to "wrap" up the year by completing tasks such as equipment and book inventory, filing staff summative evaluations, completing special education tasks, and signing the staff checkout form to release teachers for the summer. Her demeanor seemed unchanged. The special education teacher seemed to change the least. Her focus on providing support to students and complying with special education law was the same as it was during our first interview.

Of the six individual participants, the three who were serving in new roles during the school year showed noticeable changes in leadership style and expertise. The RET expressed a stronger determination to be a voice for teachers. Although she was opinionated and knowledgeable from the first interview, her confidence as a teacher leader seemed more deeply

entrenched. The CSS devoted the early part of the school year developing relationships and building a culture of respect and trust for her position and the support she could provide. By the spring, she employed the goodwill she developed with teachers to push them to refine instruction and be more consistent and accurate with reporting and documenting outcomes. The ISS seemed to learn the most about her position, especially as testing chair. Although she was often in a frenetic state, her capacity for anticipating pitfalls and challenges with preparing students for testing and with the testing procedures seemed highly developed.

Overall, it appeared the ability of the principal to articulate and operationalize her vision and the willingness of her teacher leaders to support her fully resulted in a consistent and driven focus on student success on various assessments. The team members and the individual participants seemed to be able to keep fruitless disagreements out of the meetings. Debate and argument did occur often, but they served the purpose of clarifying information or deciding how to effectively implement proposed actions.

The Research Questions

The primary research question addressed the reciprocal nature of information as transmitted through the micro, meso, and macro levels of the educational environment. The questions subsumed under the primary question address identifying specific environmental influences (1a) and how individuals respond to those influences and incorporate them into decision making (1b). The following research questions and the findings concerning them guided the research methodology, group observation and individual interview protocol:

1. How do environmental influences impact the factors individuals consider in a collaborative decision-making group?

The environment had a daily, direct impact on the factors the group members of the Lead, Vertical, and 3rd-grade teams utilized to make decisions. Not all team members engaged all levels of the environment (micro, meso, and macro), not all team members engaged the three levels equally, but all team members were impacted by information that was either sought at the micro level or pushed down to the micro level from either the meso or macro levels. Regardless of the level, the environment is the primary guiding influence and provider of the factors the Lead, Vertical, and 3rd-grade team members consider when making decisions. Among the teacher leaders, the RET seemed to draw on her expertise more. Individual biases, preferences, and knowledge emerge in response to environmental factors.

1a. Which micro, meso, and macro inputs does a collaborative decision-making group member rely upon during the decision-making process?

At the micro level, the principal was the leader who decided what inputs teachers were required to attend to. Most of those inputs were "non- negotiable" district (meso) mandates. Grading policies, faculty contractual work hours and attendance policies, testing procedures for district assessments, and special education policies and procedures, to name a few, were inputs the principal and assistant principal informed or reminded staff about. In addition, the principal worked through the Lead Team to decide on school-generated assessments, school wide activities and initiatives, and allocation of personnel to implement school programs, in particular RTI. The vertical and grade level leaders relied upon getting direction about required actions and timelines. In the absence of Lead Team member guidance or directives, the teachers relied on strategies developed within the school to address the needs of their classes, and especially the needs of struggling students.

The principal, assistant principal, and assigned teacher leaders interacted with the meso level regularly. In particular, they engaged district level representatives and parents frequently. When conflicts developed, the principal was usually the one to intervene and take responsibility for deciding what to allow in from the meso level. Teacher leaders relied on district-wide committees and teams they were a part of to obtain information to bring back to the school members (micro).

The macro level inputs mandated to be adhered to at the micro level were filtered through the meso level. These inputs include state testing assessments and guidance, special education law, and legal and ethical standards guiding personnel and school operations. Macro level inputs the micro level staff pursued could come directly from the macro level. Usually, this information came through accessed state, national, and global websites.

1b. How does a collaborative decision-making group member operationalize and utilize micro, meso, and macro aspects of the educational environment?

The group members operationalized the micro, meso, and macro level aspects in much the same way. They learned what directly and indirectly impacted them, what they were responsible to do and know, and when they were to accomplish goals. Then they relied on the leader to confirm or reject practices and actions. The school staff worked to gather and understand the objectives of the school as articulated by the principal and perform under various categories. The members individually decided what was suggested and what was mandated. When they operationalized time allocation it appeared that managing time served as an important tool to collectively organize team priorities. The constraints served to focus decision making on the manageable and the important.

Conclusion

In Chapter 4 I presented the results of the study in a narrative format. With a phenomenological study it can be difficult to separate the reporting of results from analysis of the data. Although there may be instances where my insight as a researcher who experienced the meetings and conducted the interviews mingles with the data that emerged from the participants, I took care to use the participants voices often through quotes as a check against my voice coming through too often.

The results in this chapter were a product of the hundreds of pages of observation and interview transcriptions of audio-recordings. A total of thirty-two observations and interviews were conducted from August 2009 through June 2010. The edic and etic coding filtered the data through the research questions and the theoretical foundation, which centered on adult learning theory as a decision making process.

In Chapter 5, the results from Chapter 4 will be discussed along with implications for decision making and recommendations for policy, practice, and research.

CHAPTER 5: CONCLUSIONS

Introduction

Decision making in schools is a dynamic and complex set of processes. Decision making requires decision makers to rapidly gather information, increase knowledge, and work within systems to negotiate the educational environment. In Chapter 5, a brief summary of the findings, an interpretation of the findings, discussion, and suggestions for further research are presented.

The problem addressed by this study is the lack of insight throughout the existing literature concerning how individual members of collaborative decision teams gain knowledge about the educational environment and the factors that influence decision making. How those members operationalize the micro, meso, and macro-level influences as learners and decision makers was also a concern. Little empirical evidence exists related to individual decision makers situated within collaborative teams as they negotiate the micro, meso, and macro environments (Polite, 1993; Smylie, 1993; Weiss & Cambone, 1994).

In Chapter 4, the findings for the phenomenological study were presented as a synthesis of all of the interviews and observations conducted during the pilot and research studies. The findings were presented as narratives which combined and synthesized the data from the transcripts of audio-recorded team observations and individual interviews. The data was derived from using open and theoretical coding of transcripts.

Summary of Findings

This study was conducted during the course of one school year at one elementary school in southeastern Virginia. The school received numerous state and federal awards. It was recognized as a Federal NCLB Blue Ribbon School. At the state level, the school was awarded

the Virginia Board of Education VIP Excellence Award, and rated a Virginia Top GreatSchool and River Star School. Three collaborative teams were observed in the process of regularly scheduled meetings to review student data and decide actions relating to pertinent and developing issues. Six school leaders serving across those three teams were chosen for individual interviews conducted after each of the observed team meetings. Three collaborative narratives and six school leader narratives representing a total of 11 roles were presented in Chapter 4 to describe each group or person's experience with decision making. The decision makers were perceived to be adult learners who negotiated the educational environment to attain knowledge, gain new perspectives, and problem solve.

Throughout the study and data analysis the ideas of collaborative leadership connected to decision making versus problem solving emerged and needed to be reconciled. Individual decision making was the initial focus of this investigation. During the study, collaborative decision making was shown to be relegated to often specific grade level decisions not impacting school-wide operations. Decision making impacting the entire school subsumed collaborative structures under principal power. Collaboration was shown to be more logistical problem solving rather than authentic participatory decision making. Collaborative structures served an authentic function, however. Namely, they were used to disseminate information from the top (Lead Team) and coordinate timelines, intervention implementation, and teacher reports. The principal was the primary decision maker in the building concerning school-wide policy and programs. The logical flow of the data followed a pattern of searching for emancipated workers negotiating meaning making and environmental influences through which reflective transformational decision making could be viewed. The data led into an examination of the processes the school

leadership used to control decision making and guide teacher behavior through organizational structures.

The four primary themes of *principal power, resource allocation, student performance, and ways of knowing* emerged across the group observations and individual interviews. It appears, at least in this elementary school, the power a principal wields is not matched by the assistant principal. The principal used phrases such as “I want” and “let’s make sure” to express her wishes. Time allocation was the resource most often discussed by the ISS, CSS, and RET, and it was the primary resource factor for the principal, AP, and SPED teacher. It was manifested in two main ways: One was as a constraint to accomplishing desired tasks; the other was as an organizational tool to assist the instructional leaders with prioritizing when and how often they would work with certain students or work on certain projects. All of the individual decision makers interviewed for this study made direct connections between the student scores and adult effectiveness. The last theme concerned with gaining knowledge was revealed by the group, which did not collectively move from ignorance to understanding. The individual group members did not always receive information at the same time. Rather the members of the group learned together. Rather than individuals learning simultaneously, individuals gained understanding on their own terms within a finite time frame with the understanding decisions had to be made. Those who had the greatest understanding seemed to influence the path of the decision making.

The data demonstrated individuals relied on micro, meso, and macro environmental influences to decide how to perform their job duties; however, some were more influenced by the micro level namely when it came to setting goals and priorities (ISS, CSS, RET), and some were more influenced by the meso namely when it came to seeking understanding and negotiation of

policies. (principal, AP, SPED teacher). This study was situated within the micro environment. Observations were of micro level groups, and interviews were conducted with micro level workers. The macro was not much a direct influence on the individual decision makers. The macro was responsible for shaping accountability policy, which influenced the mission of the school to measurably increase student achievement. Macro level policy was filtered and interpreted by the district and communicated to the school through district resources. The only direct micro-macro engagement revealed by this study was when the SPED teacher described referring to federal special education guidelines through online sites. Although individuals engaged in negotiation and learned how to make sense of information from the environments in their own ways, personal biases and individual professional opinions were subjugated to the school leaders' (micro) vision as operationalized through created organizational systems within the school. The vision emerged from the concept of providing support for individual students through the Response To Intervention (RTI) model. The vision was articulated into goals by the Lead Team and operationalized through the various teams throughout the school. Micro level participants dominated the decision making inputs, and individuals prioritized the principal's wishes above their own.

Limitations

As with any qualitative study, this study was limited by the fact that it is just one interpretation. One weakness of the analysis presented in this study is that a third party was not consulted to code the data to check researcher bias. By its nature it is partial and incomplete. Other researchers conducting the same investigation or reviewing the same transcripts may have different experiences and interpretations than those reported herein.

Three teams were observed and six instructional leaders serving in a total of 11 roles were interviewed. They were all members of the same elementary school in the same school district. The three teams observed were a part of the information and decision making stream and were focused on the analysis of measurable student assessment data and strategies to address student performance. The three teams were the Lead Team, comprised of the administrators and teacher leader, the Communication Vertical Team, led by the CSS from the Lead Team and comprised of grade level team leaders, and the 3rd-Grade Team. The Lead Team was chosen because of the authority and power it has to develop policy and goals, and to define standards for students and teachers. The Vertical team was one of four content vertical teams in the school, and it was selected because the leader was also the primary developer of monthly assessments for English, which is a macro level priority. The 3rd-grade was selected because 3rd-grade achievement was part of the school's accountability plan. In addition, a member of the team was also on the Lead Team and led the social studies vertical team. When examining decision making, previous studies support selecting teams and individuals who have leadership roles and interact among different collaborative structures (Polite,1993; Smylie,1992).

Other informal and formal teams existed within the research site. During the pilot study, the Social Studies Vertical Team led by the RET was excluded from the study because two team members refused to sign the consent form. The RET later told me she was not surprised. The two members were perceived to be difficult to work with. They were two of the most tenured teachers in the building and did not subscribe to the organizational structures of the school. Studying that vertical team or any of the other teams may or may not lead to exploration of teacher power and creativity apart from the influence of the school leadership. The goal of this study was to gain a deeper understanding of experiences occurring in a specific context. If more

instructional leaders were interviewed, it is likely different experiences would have been reported. After a year-long study where teams were observed and interviews were conducted up to four times each (with the exception of three AP interviews) producing hundreds of pages of transcripts, there is support for the argument that a level of saturation has been achieved.

These limitations should be considered when considering the findings.

Discussion of Findings

Impact of No Child Left Behind

The No Child Left Behind Act (NCLB) enacted in 2002 has been a prominent influence on the way the federal government, states, districts, and schools measure student performance and school effectiveness. During this research, the researcher's predisposed notions about how NCLB was the impetus for many decisions and actions school leaders engaged in was questioned. The themes which emerged from the research data show NCLB seemed to be the reason the principal devised structures within the school to capture measurable student assessment data. Although student success was the goal, the importance for student success rested in the overall pass rates on state Standards of Learning tests (SOLs). School accreditation relied on the results students achieved on SOL tests. A main factor contributing the power the principal had within the school and district was "her" results on SOL scores. The higher the scores, the more she could resist certain district directives she did not agree with. Every staff member in the school within the purview of their positions was tasked with supporting the efforts to reach acceptable scores. Although high stakes testing as part of NCLB was the primary motivating factor for organizing the school under a data-driven decision making model, the school was not necessarily controlled by NCLB. The principal *chose* the organizational structures and allocated the resources. The ISS, CSS, RET, and SPED teacher made references to

delivering what the principal "wants." Although high-stakes testing, as an accountability measure under NCLB, factored heavily into school decision making, NCLB did not appear to be the defining factor by which information was selected, people were organized, and decisions were made in the school examined for this study. The defining factor was the use of data to define instructional problems and monitor trends in student performance as a problem solving mechanism. The reliance on student-specific measurable data, operationalized through the implementation of tiered intervention support for students, led the principal to create levels of collaborative teams that shared data up from the classroom to the grade level to the administration and back down to the grades and classrooms.

Decision Making Through Identified Themes

The four primary themes which emerged from the study enriched the understanding of how micro, meso, and macro level influences impact the individual at the school. Previous studies support the findings that *resource allocation, student performance, ways of knowing, and principal power* are often factors influencing decision making among individuals as part of school teams (Dixon, 2000; Griffith, 2001; Lam, 1985; Newton & Sackney, 2005; Tam, 1994)

Resource Allocation

Resource allocation is a term subsuming a wide range of topics in the literature (Beck & Murphy 1998; Campbell & Greene, 1994; Larson & Rader,2006; Yanitski, 1998). Resources refer to personnel assignments, scheduling time, facility design and use, fiscal allocations, student scheduling and placement among numerous other categories. Resource allocation, especially the use of time, was a prominent theme among all of the study participants. The Lead Team was kept "on track" by the principal to cover the data collected monthly, which was presented in three-inch binders for each grade level. The Vertical Team meetings were held

during the hour before school officially started. A priority was to have a decisive agenda and tightly stick to it so the team members received the information needed to effectively participate in the weekly Grade-Level meetings. Each Vertical Team in the school had to make time for, at least, the dissemination of the decisions from the Lead Team meeting to prevent an uneven distribution of knowledge across the faculty. The 3rd Grade-Level team meetings were held weekly during the middle of the school day. It was essential that the meetings were not impeded upon by other school functions or issues that developed during the morning hours before the meeting time.

The theme of time allocation emerged as micro, meso, and macro level inputs for decision making. One reason the school leaders developed micro-level monthly assessments was because the meso-level quarterly assessments provided data "too late for us," according to the principal. Communication coming in from outside the school precipitated decisions about time management. The assistant principal prioritized the meso and macro inputs daily according to what needed immediate attention and what could be "looked at a little later." She said it required discipline to know what to respond to and how to respond to information or requests from those inside and outside of the school. About district level information, she said, "I have to make sure I filter it so that when I do bring it to the school it will be something healthy, something that could benefit us as a school. Because you have to be very, very careful in the way things are communicated."

The ISS and CSS found they had to rearrange planned time allocations to work with teachers in classrooms to "deal" with district mandates they felt were communicated on "short notice," such as compiling documents into reports for the district or administering a district or

universal assessment with less than a week of notice. The RET seemed to consider all possible actions in terms of the time it costs to accomplish them. According to her,

> The only thing is time management, because there's only so much time in the day and to pull them [students] out to give them extra help on things that they didn't master last month, well then they are missing this month instruction. It's just figuring out a time. The biggest thing is getting them the extra help, and we hate to pull them out of a resource like music, art, P.E., because we feel like they need that time as well. Time management is the biggest issue.

The participants all discussed time allocation in a tone of frustration and, at times, exasperation. They all wished they could have more time or spend more time performing the actions they deemed important.

This study supported findings in the literature which suggested allocation of resources as a characteristic of management duties. This study and the literature suggest the allocation of resources were used by school leaders as tools to promote instructional priorities and organizational goals (Ackerman & MacKenzie, 2007; English & Anderson, 2005; Glanz, 2005; Marks and Louis, 1997). For example, the principal in this study used resources to directly support the Response to Intervention (RTI) student support model through which she organized teams and assigned fiscal and personnel resources. A source of power is the ability to provide resources, and power can become self-perpetuating through effectively using resources (Pfeffer, 1997). The principal utilized her social capital to control resources and structure the organizational network. In particular, she hand-picked the members of the Lead Team and the team leaders for the vertical and grade-level teams throughout the school. According to Jackall (1998), personnel changes tend to be arbitrary and depend on social relationships with key individuals and groups of supervisors. The principal felt some team members were unethical during the previous school year. She worked for their transfers to other schools. For the current school year, she unofficially sought those teacher leaders she knew and knew to be trustworthy.

The principal said she sought members who shared her drive for increased student performance and were skilled in data-driven decision-making. All but one teacher specialist on the Lead Team worked in the school as classroom teachers prior to being selected for the Lead Team. The CSS was new to the building and formally interviewed with the principal. She taught in the district for five years prior to being hired at the current school and was known by her colleagues.

Based on available resources, the team members used the group to set priorities, get direction, and seek clarification. While in the group, the members begin to filter the tasks and the information through their perceptions and employ their unique talents and skills to transform the directives into practice. For example, at the Communication Vertical Team and 3rd-Grade Team meetings members were observed thinking aloud how to "re-teach" a concept with which students performed poorly to their individual classes. In interviews, the ISS and CSS spoke often about using and manipulating the resources at their disposal to accomplish tasks. For example, the ISS devised a plan to use paraprofessionals, who had no responsibilities while pre-kindergarten students napped, to assist with test administration for the lower grades. The CSS constantly manipulated the format and length of test questions to mimic high stakes testing. While group members at the micro level seemed to seek clarification of ambiguous, uncertain, unclear, or equivocating (competing) ideas, they sought understanding on their own. The SPED teacher and the AP routinely contacted district administrators to seek understanding of policy interpretation. The ISS sought clarification at district testing meetings. She asked questions and engaged those outside of the school and the principal until she received proper guidance. The CSS engaged the district English coordinator for information and justification of program implementation. She also involved the principal when disagreement arose over the grade impact of the ePortfolio. The ePortfolio program competed with school-based English assessments and

desired grade weights (equivocality). The RET worked among three teams at all levels of instructional decision making to address any confusion and voice suggestions. Once clarification was achieved, the members had to use their capacity for learning to understand how to do the work with the time, materials, and others available.

Student Performance

Student performance is prominent in the literature as the factor motivating decision making and organizational systems at the micro, meso, and macro levels. Student performance was the theme most directly expressed verbally across the three teams studied and through the individual interviews. In the Lead Team meetings student test results were presented through comparative data charts. Trends in performance were discussed, and placement of students for tiered intervention support was decided. In addition, teacher performance, decided through overall class pass percentages on assessments, was discussed to determine where the teacher specialists would focus their support for teachers through modeling and professional development. The Communication Vertical Team and the 3rd-grade Team focused on developing strategies to present the curriculum as a way of preparing students to perform well on monthly (micro), quarterly (meso), and SOL (macro) assessments. The individual participants echoed the findings from the group observations. Although, the teacher leaders expressed a desire to have other student factors, such as illness, home situations, and attendance considered in the data analysis, each believed using the data derived from student assessments to drive instructional priorities and adjustments was the most effective way to build learning communities within and across teams.

This study supported findings in the literature that suggested effective schools use student performance as the unifying factor driving organizational structures, professional

development of staff, and instructional decision making (Beck & Murphy, 1998; Bowers, 2008; Conley & Goldman, 1994; Silinis, Mulford, & Zarins, 1999). The importance of developing strategies and programs to examine and address student performance exists at the global macro level down through the state macro level, district meso level, and into the school at the micro level. At the global level, U.S. participation has increased since 1995 in administering tests and reporting results for international assessments such as The Trends in International Mathematics and Science Study (TIMSS), The Program for International Student Assessment (PISA), and The Progress in International Reading Literacy Study (PIRLS) (National Center for International Statistics, 2009). If the federal government decided to participate in these universal assessments, it usually enlisted the National Center for Education Statistics (NCES) to coordinate the testing. At the national macro level, NCLB (2002) mandated all children have an equal and significant opportunity to attain a high-quality public education. NCLB mandates each state use an achievement test to annually test students in grades 3rd through 8th and students in select courses in high school. The law requires that by 2014 every child must achieve proficiency in reading and math as measured by the high stakes tests. The law leaves the definition of proficiency to each state.

Although NCLB was the ultimate accountability measures for the school, the principal did not often discuss the federal mandates. She focused on the aspects of the principalship she could control. For example, she developed an organizational model for the school centered on tiered intervention support for students. She researched and selected the professional development for her team of teacher leaders and other classroom teachers rather than rely on the district to determine the needs of her staff. She, not the district, decided the staff would benefit from implementing Kagan strategies. She decided to have her team create weekly and monthly

formative assessments for all students when she felt the district assessments did not meet her needs of timeliness and reliability. The principal, not federal mandates, guided the actions of school members daily.

At the meso level, districts, in response to macro mandates, created structures to attempt to manage quality control in school to ensure predictable and desired assessment results (Kohn, 2000). Waters and Marzano (2006) conducted a meta-analysis of district level leadership of districts in the United States from 1970 until 2005. After examining over 2500 districts, 4400 superintendent ratings, and 3.4 student achievement scores, they found five district level responsibilities positively related to student achievement. *Collaborative goal setting* included involvement of all relevant stakeholders to establish non-negotiable goals for the district. Building level administrators were heavily involved in the goal setting for high performing districts. *Non-negotiable goals* focused on student achievement and classroom instruction with measurable targets set for the entire district. *Local board alignment with and support for district goals* was required to ensure the goals remained priorities and no other initiatives detracted resources from the accomplishment of those goals. *Monitoring achievement and instructional goals* was required of district leaders to ensure each school regularly examined the measurable progress of its students toward goal attainment. Finally, *use of resources to support the goals for instruction and achievement* was found to influence student achievement when districts ensured necessary resources such as time, money, and materials were allocated. A commitment must be made to professional development for teachers and principals to foster the capacity to attain the district goals.

Ways of Knowing

Individuals in a school make sense of information as a tool for operationalizing the educational environment. These ways of knowing appear in the literature through studies of what information individuals within organizations use and how they make sense of it (Allman, 1999; Brookfield, 2000**;** Irwin, 1991; McPhee, 1983; Zack, 1998; Riegel, 1973). Studies varied greatly concerning how knowing was defined and what aspects of knowing were included in the analysis of knowledge attainment. Newton and Sackney (2005) conceptualized knowledge as being primarily guided by the use of information. Other researchers viewed knowledge as being guided by making meaning using either shared or unshared information (Bowles, 1997; Propp, 1997; Stasser, 1999).

The data from this research study show a strong reliance by workers on environmental structures as the means to gaining knowledge. Workers relied on information developed, organized, and disseminated through micro, meso, or macro influences. For example, the entire instructional staff relied on the district's quarterly tests to determine if students were gaining mastery of curricula content and if the teachers were delivering content according to district expectations. This is not to suggest workers are helpless receivers of information. On the contrary, the workers operationalized the environmental structures. For example, the school produced an assessment in addition to the district assessment. The teachers worked with teacher leaders and administrators to explain inconsistencies in scores between the two tests. Within the school, the instructional leaders made judgments about how valid and reliable the test questions were and how realistic the pacing expectations were to determine how adjustments would be made in preparation for high stakes testing. The strength of information and the sustainability of policies, procedures, and programs are dependent on the way individuals support the

development of knowledge, understand that knowledge, and learn how to transfer knowledge into action that supports organizational goals, which develop as a reciprocal exercise by individuals engaged in collaborative groups to build consensus to produce those goals.

This study does suggest, however, that the principal either filtered the information from the meso and macro levels to the school members or played a direct role in approving or validating information from outside of the school for school-wide dissemination. Although this study was conceptualized using individualized adult learning theory as a decision making foundation, this study did not find support for Habermas' (1981) concept of the emancipatory worker. Habermas argued emancipation involves the development of self knowledge used to expose power dynamics in the environment. The data from this study revealed a tenuous struggle between emancipation and consensus building among the participants. The teachers interviewed for this study expressed the idea of themselves as participatory decision makers with power to make decisions for themselves and used the language to suggest they defer to the principal with decisions beyond a limited scope of logistical problem solving and do not question why decisions are made. There seems to be two primary reasons the teacher leaders in the study did not exhibit emancipatory thinking. One reason is they became agents of their own hegemony. They willingly deferred to the will of the principal to support her out of respect and from the belief that she worked on behalf of their best professional interest. They also believed she had the wisdom and clout to protect their professional interests. The other reason is they did not believe the principal acted as an autocratic leader, although at times she acted as an autocratic leader and articulated that she was the decision maker who was ultimately held responsible for the school's output.They expressed her decision style in terms Vroom and Yetton (1973) would describe as consultative. Vroom and Yetton described an autocratic decision maker as one who

takes known information and then makes decisions alone. A consultative leader shares the problem with followers, either individually or through groups, listens to ideas, and then makes decisions alone. The principal was described as following this pattern most often. Occasionally, the principal would share a problem with followers, listen to ideas, and accept consensus agreement. This did not happen at the school-wide level. This would happen only at specific levels such as with a grade level or content area program that did not require reporting data to the district. Those interviewed for this study seemed content with the consensus and consultative nature of most decision making in the school. Serving on multiple teams constantly ensured the flow of information throughout the school, which lessened the feelings of being marginalized through the decision making process.

A major purpose of emancipation is to eliminate ideology fostered by a false consciousness exhibited through false understanding or inconsistency of a group that could prevent a critique of oppressive daily routines remaining unquestioned because they are unnoticed (Freire & Shor, 1987; Habermas, 1981). According to Anders and Saavedra (1995) principals have the right to construct reality:

> The right of school practitioners to construct reality might mean that they construct it in accordance with their own vested interests, leaving out the constructional of students, parent, and communities. In their rush to empower their own voices, can, unwittingly, silence the voices of others.

The participants in this study, which include members of the Lead, Vertical, and 3rd-grade teams not interviewed individually, recognized the political dynamic of the school as manifest through the values and ideology of the principal, which had the potential of leading to learning as an emancipated worker (Habermas, 1981). They may not, however, have fully recognized the "distorted communication and repression" (p. 371), as exemplified by the principal. This means the teacher leaders, in particular, would recognize and accept the vision

and goals of the school, but may believe they had more of a role in constructing and amending them than they did in reality. The ISS described an issue with a dysfunctional team from the previous school year:

> Last year, there was conflict but it was never really discussed. People had different views; some people were quiet and sat back while other people were powerful and kind of intimidated people not to speak up. There was some disconnect. There was not always Reading Celebrations [dominated the meetings]. We wouldn't get to the data or we would rush through the data part. But then when we came to the [Lead Team] meeting, they would have tons to say about the data. Having sat in that meeting, I know that that wasn't discussed.

The vertical team leader knew the principal's agenda and addressed the agenda items in the principal's presence but not in the meeting when it was supposed to be originally discussed. Hegemony was evident as the teachers attended to their self-interests in their meetings, and hid their concerns as they attended to the will of the principal. When the principal gained knowledge of the disapproved practice of two vertical team leaders, who were also members of the Lead Team, she restructured the team. The ISS said the following:

> Now with the restructuring of the Lead Team, with mostly new members this year, [the principal] went back through the training and said, 'This is what I expect your vertical team meetings to look like. I want an agenda from all of them, and I want the finished reports.' [She] went through the steps of the vertical team process. They had done this years ago and had to turn this in, and she just trusted that they were doing it. And now we've kind of had to take a step back to turning this stuff in so she can see that it's being done.

Rather than emancipation, the teacher leaders settled into a state of hegemony. The AP, ISS, CSS, RET, and the SPED teacher each referenced the idea of the principal being the one accountable for the actions of school members and the success of students. The principal's perceived amount of responsibility gave her the credibility to demand a certain organizational and informational structure. Using an understanding of the motivating factors behind school directives, the ISS, CSS, and RET did find areas to use that awareness to learn where they could

invoke personal freedom and how to implement it. Usually, the lesson planning process and the direct delivery of instruction were the forums for them to negotiate the micro environment. The RET described deciding "what will be sent home for homework" and having the "freedom to tweak the curriculum."

In the research site school, the principal structured the teams and the process for transferring information among teams and among team members as a pathway to decision making. This guidance of information attainment impacting school-wide programs existed as pseudo-communication (Habermas, 1987). A primary example of the pseudo-communication was used within the Lead Team fostered by the principal seeking input from team members in the absence of information at her disposal. For example, the ISS or CSS may have observed a teacher struggling to raise low reading test scores. The principal sought anecdotal input from the observers until she could process the narrative into her frame of reference as a former classroom reading teacher. When she seemed to have "enough" information, she would become the dominant voice in the exchange, render conclusions and make decisions about how the intervention she instructed the ISS or CSS to implement. Habermas described pseudo-communication existing in the absence of pure knowledge. Pure knowledge does not exist, and neither does a universal language nor universal hermeneutic. A language distortion exists between the social labor force (teachers) and the social power (administrators). In this study, in the absence of pure knowledge, the principal bridged the gaps. The teachers are unknowing of the impact of the "comprehension distorted systemic" and without understanding of the distortion will be unable to dissolve the repressive forces leading to emancipatory existence (p. 304).

Principal Power

In the area of principal power previous studies support the idea of principal power as part of collaborative decision making (Harris, 2004; Riordan, 2003). This study showed principal power was strong at the micro level. Adult learning for individuals who were members of the teams observed within the school was guided by the wishes and directives of the school principal. The previous school year was marked by mistrust and upheaval, according to the principal, the CSS and the ISS during interviews. The principal restructured and retrained the team to condition the members to what a meeting should look like. The teachers constantly sought ways to understand "what she wants" and adjust ideas and practices to deliver products the principal wanted to see. Although, this may appear to support the idea of the principal in this study being autocratic, the principal relied on her leadership team to gather and organize information, and help her understand the circumstances to explain inconsistencies and anomalies. Vroom and Yetton (1973) described this as consultative because the principal shared the problem with followers, both individually and within a group, listened to ideas, and then made a decision alone. This finding is consistent with Weiss and Cambone (1994), who found that Site Decision Making (SDM) enhanced the opportunities teachers had to influence decisions but relatively few teachers become active in the process. It required a great deal of time and energy and, to some degree, detracted from the classroom. Mulford, Kendall, Kendall, Hogan, & Lamb (2001) found principals felt positive about decision making in their schools. Two-thirds of teachers saw principals as providing effective leadership and decision making "characterised by collaboration, cooperation and consultative processes" (p. 71). This dropped to half when considering the implementation of effective policies. In contrast with principal perception, 40%-60% of teachers saw management as top-down, and the decision making process was slow and difficult.

When the principal in this study had an understanding of the data and made a decision, the teachers made adjustments in their practice to implement her decisions. An emancipatory worker who questioned why certain decisions were made and, especially, why specific information was used to construct a knowledge base from which to render decisions would have a difficult time at the research school site. The notion of collaboration in the school was not utilized to foster individual decision making. Collaboration existed to gain understanding and determine what actions to take and when to take them. Collaboration did have the authentic function of making sense of decisions. During the meetings, the principal used questioning to challenge the team members to justify comments and suggestions. The principal did a majority of the talking during the meetings, and the other members knew her opinions without relying on interpretation or guessing. When a member made a suggestion concerning scheduling or utilization of resources, the principal would often say, "Let's talk about that." When the principal did not engage in extended dialogue, it was usually concerning a suggestion that students may be negligent in not learning rather than something teachers were or were not doing. She either quoted data to show a trend of student performance with a teacher, or she directed the ISS to observe the class and brief her to determine if professional development was needed. Over 14 years as the principal of the school, the principal developed informal influence and power, in addition to her authority, to achieve what she wanted and needed for task accomplishment. She consciously exercised control in order to achieve specific outcomes of the people who deliver the results she sought (Jackall, 1998; Pfeffer, 1997).

Gouldner (1981) pointed out that workers do have power as well. They can shape the behavior and decision making process of the leader if they want to. The teacher leaders in the school did exhibit emancipatory behavior within limits. Typically, the teachers questioned the

strategies to handle job-specific tasks or choose between classroom instructional alternatives. Collaboration was used to address these types of problem-solving. The principal encouraged collaborative problem solving to address logistical and specialized dilemmas. This may invoke collaborative decision making, but it would be relegated to classroom level decisions, and it usually addressed *how* to accomplish a goal rather than question *why* a goal was worth achieving. School level decisions were made by the principal. The principal in this study suggested novice principals could be damaged by powerful teachers in the building. Her long tenure with the district and as principal of one school allowed her to control organizational structures and relatively easily have teachers who did not work well within the organizational model reassigned to other schools. The teachers "volunteered" to move to other positions, which also speaks to the principal's power to influence. When the principal made a decision after information gathering and deliberation, she expected the team members to adopt her interpretations and views that the strategies implemented were the best ones for the organization, the staff, and the students.

If this study were conducted in a school with a novice principal in his or her first or second year, the finding might be different. The principal of the research site was associated with the school and built credibility for running that school and achieving award-winning results. She recommended for hire almost the entire staff. Some were placed in the school through involuntary transfers, but most interviewed with her and had to gain her approval to be hired. She had the time vested in the school to create and develop structures which aligned to her values and leadership style. A novice principal inherits a staff, which includes teacher leaders, who may not agree with the values of the principal. A novice principal inherits organizational structures and may have to make changes from the position of *authority* rather than power, which may not be as strong.

The confrontational nature of principal power was revealed in her relationship with district administrators. She felt it was her responsibility to protect her staff and the instructional program from programs and policies that detracted her staff from pursuing goals within the organizational framework of the school. In the following, she expressed the relationship with the district as a challenge.

> There are often times that we have implemented strategies that have been highly successful; we've had high student achievement. And then we get a contradicting directive. [We have] to work within the parameters of that because, of course, we are a member of **** Public Schools. We're not a little school out on our own. And so how to reconcile what we know is working well in this school for our children with something that might be different coming out of Central Office is perhaps our biggest challenge.

Also at the meso level of engagement, both the principal and assistant principal had an equal role in addressing parental conflicts. Yet, when a parent of a special education student brought a complaint against the school resulting in an official due process hearing, the principal became the school's point of contact for the district. The assistant principal (AP) collected the required information and collaboratively made the decision about what information was needed. The AP held the meetings with parents and served as the contact with the district special education office when exchanging information and understandings. The AP expressed a belief that a due process hearing the school was involved in during the school year went well because of the relationship and high degree of communication with the parents who brought the complaint. She said, "I think the most challenging event this year has been the due process. What made it easier, in my favor, has been the negotiation with the parent." Compromises were offered and accommodations were made that satisfied the parents' concern once the concern was known, yet it maintained the integrity of the instructional program by not offering impractical or unnecessary accommodations. The intricate nature of a due process hearing and the high degree

of exposure and vulnerability a school is faced with during due process necessitated the involvement of the principal. The highest levels of a school district would be either directly or indirectly involved and would engage the principal with questions and requests for information.

The principal and AP engaged with the macro level through reports and information flowing into the school. The macro contact was usually one way communication. The principal occasionally "called the state" to address an issue such as teacher licensure. The two-way flow was revealed when the principal sought information through national organizations she worked with. Her decision to move the school into an RTI-driven model of student support was guided by macro level engagement. RTI is a national network of educational leaders dedicated to providing individualized intervention based solely on the measurable academic performance of students on assessments. After the school gained national recognition as a Blue Ribbon School for academic achievement, she took advantage of the opportunity to engage others at the macro level.

> A lot of articles came out about our school and me. I got a call from the RTI action network and they [asked me] to contribute to our blog, and I said I'm not doing RTI, and she said well, we're reading about what you're doing, talk to me. I'm telling her ,and she said you are doing it [RTI]. I did my own research and looked at what it's like and I thought this is what I'm doing. So I started doing the [blog about RTI], and once I did, I was in contact with all these people across the country and universities and districts that are doing it.

The principal in this school was powerful and played a strong, directive role in managing the meso and macro influences on the school. The findings suggest in a school with a powerful principal the micro level buffering of meso and macro information may cause school personnel to not have access to environmental engagement outside of micro level initiatives. As the school principal for 14 years, she cultivated a reputation throughout the district as an effective school manger who achieved impressive measurable results in student performance on state tests.

Coupled with community outreach and winning awards, the principal was able to quickly tighten decision making controls within the school, remove and replace staff, and negotiate programmatic changes with district approval after the 2008-09 school year, when the principal decided certain school leaders were divisive and self-serving and no longer primarily focused on serving the needs of students. The findings presented in this chapter were a product of the changes she made during one school year. If this study were conducted in a previous school year, the expression of her power may look different and presented in a different context. Collaboration at the micro level may seem less hierarchical if the study were conducted even one year prior.

Researchers and scholars promote the importance of collaborative decision-making influenced by a strong school leadership (David, 1995; Klecker, 2000). Other studies support the idea that principals control the decision-making process by initiating the decision making process, developing members, and guiding the implementation of decisions (Bennis, 1989, Lunenburg & Ornstein, 2000, Tuten, 2006). The literature supported different degrees of principal power in school decision making from autocratic to delegating by recognizing principal power was often manifest along the continuum in response to situational needs. Hoy and Tarter (2008) described how unilateral decisions are typical when time constraints prohibit input from stakeholders or when higher powers direct administrators to implement a policy or procedure. This idea was supported through this current study. The principal often felt a sense of urgency and had a vision that compelled her to make decisions or approve decisions others suggested. This may have made the principal appear autocratic. According to Anderson and Saavedra (1995), those who embraced participatory decision making as a way to empower themselves "have too often balked at using it to empower other constituencies" (p. 233). She did rely on

others to provide information from which she made decisions. Yet, if time constraints limit input (Hoy & Tarter, 2008) and the faculty feel constant time pressure due to aggressive improvement schedules set by NCLB, top-down decision making should be expected. In fact, this may be one broader by-product of NCLB. When examining which environmental influences micro-level individuals rely on when making decisions, the principal emerged as the dominant factor.

Organizational Interaction

Just as Habermas (1984) described individual participation, Mumby (1996) described organizational participation. According to Mumby, the organizational environment was not easily discernable from other aspects of society. The school existed as an organization that was interdependent with other organizational elements in society; in this study those elements were the meso and macro levels. The theoretical ideas expressed by Mumby were somewhat supported by this study. The micro (school personnel) and meso (school, district and parents) levels exchanged information and acted in a reciprocal manner, especially when the administrators were involved. The SPED teachers and the AP cultivated relationships with parents and the district as a means to navigate the complex realm of providing special education accommodations. The AP also relied on parents to assist with correcting students' negative behaviors. Parents, likewise, relied on the school to act in the best interest of their children and provide strategies to bridge gaps between the home life and the school life.

The interactions among the school-level workers and the parents seemed to exist as pseudo-communication in ways similar to the interactions among teachers and administrators. The AP had organizational power and a degree of control of the flow of information. With special education in general, case study research showed student, parent, and teacher participation in required meetings, such as the yearly review of a student's Individualized

Education Plan (IEP), was devalued through the ways power was focused in hierarchical knowledge that used test scores, technical language, and institutional authority to place expert professional knowledge at the top (Anderson, 1998; Ware, 1994). The parents were dependent on the school representatives to guide them through the process of having their needs and wishes expressed and addressed. Parents "cannot figure out how to get access to the information they need to level the playing field for collaborative decision making (Anderson, 1999). The assistant principal described deciding when enough documentation was collected when a parent filed a formal complaint about the school's accommodation for a special need student.

The teacher leaders and assistant principal had the additional support and protection under the umbrella of power of the principal, who could interact with district administrators if parents decided to address their concerns at the district level. The assistant principal also had a working relationship with district administrators. The principal was the one responsible for addressing school-wide concerns and needs with the district administrators. The three instances captured during this study where the principal intervened on behalf of teachers in response to micro-meso conflict involved a special education case, a grading concern, and the scheduling of district quarterly assessments. When a parent filed a complaint charging the school was negligent in providing services to a student, the principal directly monitored the district's response to the case as the district monitored her response. She assigned the assistant principal with collecting documentation and scheduling meetings, but she assumed the role of writing responses to all of the charges levied against the school. When the district English coordinator directed the implementation of the ePortflio program, which accounted for up to 80% of students' English language grades, the principal engaged in a dialogue with district officials and appealed the implementation. The ISS approached the principal with concerns about the district testing

schedule. The quarterly tests were administered a week or more *before* the quarter ended. The principal was the sole negotiator to argue for the testing to occur within a week *after* the quarter ended.

The district relied on the school to implement the instructional programs and comply with policies to demonstrate the qualities of an effective school system. The school relied on the district to provide the support and resources to accomplish the shared mission of increased student achievement. The meso (district) and macro (state) exhibited a reciprocal relationship in that the district was the local agency representing the needs and desires of the vast state network of educational offices.

In this study, the micro (school personnel) and macro (state, federal, and global) environments did not seem to exchange information directly. The meso served as the intermediary between the micro and macro by "filtering" information. The meso (district) and the macro (federal and global) levels did not engage directly with each other. The state served as a macro boundary spanner (Honig, 2006) to convey policies and laws to the district. The state (also of the macro environment) served the function of filtering information from federal and global sources to the district. In this way, both the principal at the micro level, the district at the meso, and the state at the macro level served as "boundary spanners" (Honig, 2006**)**. Boundary spanners serve the role of brokering "new support relationships and otherwise enable implementation" of policies, procedures, and programs to improve student learning (p. 357). Honig (2006) described the struggles meso level leaders faced to adopt support roles. Historically, the incentives for district level administrators emphasized "top-down, command and control relationships" with schools and not "collaborative decision making" (p. 359). When faced with high stakes accountability initiatives such as NCLB, districts tend to assert control

over school decisions concerning improved student performance (Honig, 2006). The findings from this study suggest that although the interaction between the principal and district leaders was frequent and considerate, the district used its authority to interpret and implement state and federal mandates to mandate practices at the school. In the areas where accountability at the macro level was not direct or required, district representatives functioned as boundary spanners in support roles. This was typically manifested through support for the principal to pursue professional development opportunities or assign personnel to fulfill additional roles within the school. Data from this study suggested that more than merely acting as a boundary spanner, the principal played a key role in limiting meso input from the district. For example, the principal was the one to intervene to address conflicts with the meso level representatives. When the CSS had difficulty with competing district demands for implementing reading programs, the principal intervened as the negotiating agent. The principal also authorized the RET to adjust the curriculum to meet classroom needs. And, she assisted the SPED teacher with gaining clarity about testing accommodations for special education students.

The disengagement between micro and macro and meso and macro (at the federal and global levels) found in this study seemed to propagate some isolationist thinking and cycles of temporary change and adjustment, which is supported by the work of Habermas (1981). Yet, not recognizing the influences that the micro, meso, and macro levels have on one another can limit the understanding about the motivations of the players within those different environments. Absent an understanding of the motivations behind the various influences, including policies and programs, school-based decision makers can make decisions that do not address root issues. This can lead to a cycle of temporary adjustments and change. The ISS, for example, described a situation where she had district testing planned and scheduled to present “a few model lessons”

in classrooms to assist teacher development. Then “we’ve been told we have to add all these assessments. Anything else we wanted to do [had] to be put on hold because we need to take care of these first.”

Weick (1976) claimed most researchers make the assumption that one can "understand" an organization by examining the formal structures, goals, and activities of an organization. The research design for this study implicitly made the same assumption. The belief was that examining the structures of decision making teams would serve to gain insight into the structure of individual thinking and learning during individual decision making. The idea of structures existing within and beyond the formal linkages emerged during the course of the research and clearly through the coding of the data. Weick argued for the development of organizational language to recognize and describe the “loose coupling” of actors, rewards, and technology, which exist in addition to the “tight” links of formal systems. Many loose couplings could be considered in schools, according to Weick: teachers and materials, or processes and outcomes, or teacher and teacher, or teacher and principal were a few. Weick described the manifests of loosely coupled systems were situations where multiple means could produce the same results, where coordination was lacking, where an absence of regulations existed, and where a high degree of connection existed yet feedback was slow. Although the manifestation of loosely coupled systems appeared negative, Weick claimed they may benefit organizations by allowing them to temporarily persist through rapid changes in the environment. Loosely coupled systems may also help improve the sensitivity of organizations to the environment, allow micro level adaptations and creative solutions, and allow more emancipation by the participants.

During the research for this study, evidence of loose-tight coupling emerged. The principal acknowledged that her school did not operate under the formal model of site-based

leadership “as it used to.” This was a school system and not a system of schools. In practice, however, she felt each school had different needs, and she had proven she knows how to train teachers, how to decide on and implement programs and strategies that worked, and, most importantly, how to get high scores from the students. The principal’s belief in the formal structures she installed in the school fostered the development of tightly coupled systems to develop. Within those structures, evidence for some loosely coupled systems emerged to adjust to dilemmas at the grade and classroom levels. During the research, for example, individual Lead Team members engaged the principal in informal discussions before the official meeting times, during breaks, and after the meetings. In general, the conversations concerned ambiguous or unclear information from the district or issues with a specific student or parent. The area where the teacher leaders were most vocal during Lead Team meetings was with test construction and validity. If test results were low for the school generated tests, teacher leaders would analyze test questions and offer opinions or factual information when there appeared to be a problem with the test. Usually they discussed the wording of questions or distractors or examined the timing of tests to question whether the skill or content tested aligned to the pacing of the curriculum. The skill or content being tested may not have been taught before the test was given. The school and district testing was normalized. Invariably, the principal made a decision either giving approval for a proposed solution the member articulated or directing an action from that member which often required involving other school personnel. Teachers could act within the prescribed guidelines to creatively work with students and adjust instructional strategies to achieve the desired results, examined as data by the three formal teams. Tightly coupled systems existed in areas guided by goal development and the means to achieve those goals at the micro level. Loosely coupled systems were evident in the relationship between the school and the district

concerning the means to achieve district goals, especially when the principal negotiated program implementation and when she found a staff member at the district level who enabled the principal to have district test scores delivered to her outside of the normal operating procedure. In general, the school leaders viewed an absence of regulation or coordination as an opportunity to act in ways they felt best served the interest of the students and other members of the school community. In this way, loose couplings provided the opportunity for decision making and allow decision makers to utilize micro factors in developing their decisions.

Through the coding of the data and throughout the analysis of data for themes related to this study, it appeared there existed an interaction between the individual and the organization. The purpose of this study was to situate the individual within the group of an organization (school) to examine how the individual gained, processed, and used information to create knowledge and make decisions utilizing the ideas of individual adult learning fromMezirow (1981), ways to make sense of information from Zack (1998), emancipatory thinking from Habermas (1984), and boundary spanning from Honig (2006). During the course of analysis, what emerged was a less dynamic individual decision-making authority and process among school leaders other than the principal than was anticipated. Often, the principal was the sole dynamic decision maker and problem solver. In her role as head of the organization (the school), elements of organizational decision making, such as those ideas forwarded by Mumby (1996), Flyvbjerg (1999), and Argyris (1976) emerged.

Support for Adult Learning Theory

Mezirow's Adult Transformational Learning Theory (1981, 1991, 1996, 2000) was the theoretical construct upon which this study examined individual decision makers as part of collaborative groups. Figure 1 (from Chapter 1) diagrams Mezirow's theory in which the actions

adults use to gather information, make sense of information, gain knowledge, and use knowledge to demonstrate competence through actions, resulting in new or altered perspective in response to a dilemmas within an environment. For purposes of this study, Mezirow's theory was adapted to reflect the individual school member situated within a group.

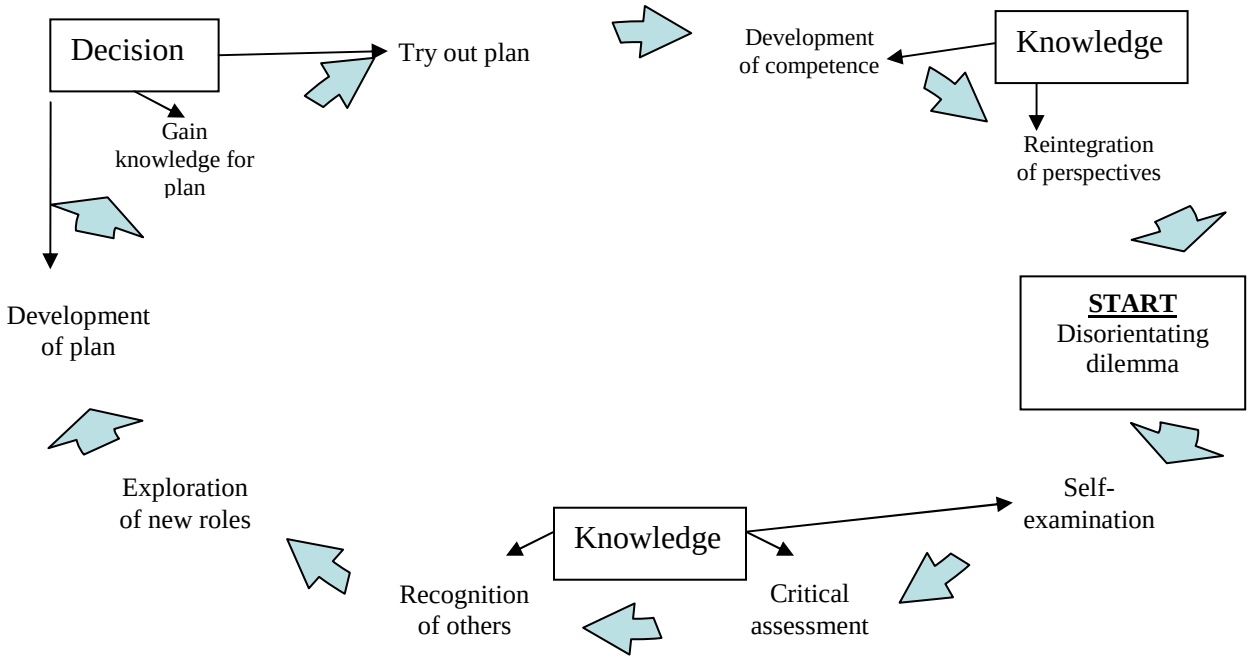

Figure 1: Mezirow's transformation theory (Adapted from Mezirow, 1995)

This study found support for certain aspects of the adult learning theory. *Disorientating dilemmas* occurred frequently. With each month's examination of student performance data, the Lead Team had the issue of deciding which students were in most need of tiered intervention, which staff would provide the support, and when the support would be provided. In addition, members of the Lead team, Vertical, and 3rd-grade Teams faced a variety of dilemma contexts throughout the school year, such as program implementation, instructional adjustments, classroom procedures, and facility usage.

During individual interviews, the idea of *self-examination* emerged. The principal was observed working through her thoughts through articulated rhetorical questioning and through

the use of monologues during Lead Team meetings. The ISS listened during the meetings for cues to “write notes” about people and ideas she needed to follow up with as a result of decisions from the meetings. The CSS recounted how she thought about her own agenda and tasks to complete after she reported out her data during the lead Team meetings. The RET filtered the data and suggestions presented during the meetings through her perspective as a classroom teacher, the impact on time management, and the receptivity of other classroom teachers to school-wide decisions. Other team members may have engaged in self-reflection during meetings but it was not evident, although self-reflection is imperative to transformation.

Usually, what was observed and what participants described doing after articulating a dilemma was to immediately determine what is known about the dilemma. The principal guided the pace of the data revealed and expressed what she wanted the team members to learn to implement the RTI with the students and teachers identified. The use of measurable data was the most frequent assessment tool chosen. In other instances, inclement weather affecting student attendance, poor test design, loss of instructional time, and teacher capacity to deliver certain curriculum objectives were discussed as possible factors to consider when determining causes of dilemmas.

Recognition of others was used frequently during team meetings and individual interviews. Quickly after critically assessing the known factors about a problem, the principal decided which individuals or team of individuals would be assigned to perform specific tasks.

Exploration of new roles, development of a plan, and gain knowledge for plan were observed in teams as being compressed into one stage. Individual interviews revealed e*xploration of new roles* was little more than recognition of being assigned a task. Individuals relied on cues from team analysis of dilemmas as a blueprint for a solution. There was little

evidence individuals sought alternative plans after the meeting adjourned. Gaining knowledge for the plan usually involved formal clarification of information from the team meetings and informal talks with colleagues to get "suggestions" for strategies or for manipulating strategies.

Insight into how the participants *tried out* plans was derived from interview participants talking about what "needs to be done" rather than from talk about what was done. The 3rd-Grade Team members did discuss the struggle to present a geography lesson and attempted to diagnose where the planning failed to connect with student abilities. Through the interviews, the principal and the RET discussed using creativity and risk taking with planning as a path to gaining new knowledge. For example, the principal constantly explored ways to use personnel in the school to provide "pull-out" support to students in addition to the regular school instructional program. She also sought professional development opportunities that would provide the training to the most teachers with the least amount of intrusion to teachers in the classroom environment. The RET advocated for project-based school-wide activities where students could demonstrate knowledge outside of the routine classroom structures. One project involved students dressing up as famous Americans and being stationed throughout the school as a live version of an American History Wax Museum. The AP, CSS, ISS, and SPED teacher usually relied on thoughtful planning and then faithfully attempting to implement what was planned with the understanding they could make adjustments to the order of task completion or delay certain tasks if the team member had to respond to an urgent or unpredictable situation. As long as deadlines were met for Lead Team priorities, the principal trusted the judgment of the teacher-leaders to adjust other duties.

It was evident from the data the *development of new competencies* and knowledge factored into the performance of all of the individual participants. Each school year brings a shift

or change in district wide personnel assignments, new or adjusted policies, and micro, meso, and macro level priorities. Each school year requires each individual to develop new competencies during problem solving as a prerequisite to moving through the year. It follows that developed competencies manifest as *new perspectives* unique to the school year and the level being engaged (micro, meso, or macro). The individuals interviewed expressed a shift in thinking about their roles and how to be effective. This was often articulated as goals for the next school year.

Throughout the year-long study, the instructional leaders (teacher and administrator participants) talked about continually changing their practice. The district was addressing a looming financial dilemma during the school year studied. The principal learned how to continue supporting students and teachers and getting district approval while recognizing financial constraints. She described her use of a distinguished school grant to provide professional development for teachers. The principal used the grant to hire a Kagan program trainer. She waited until the trainer was "in town being paid for by special education." She paid her for a Saturday and "I personally picked her up at the hotel, brought her here, and took her to the airport at the end of the workshop so I didn't have to pay for transportation," which would have required additional district approval. The AP developed stronger relationships with the parents of some of the special education students and learned how to better navigate the district special education offices after experiencing a due process hearing. She said "I'm always growing, always learning." The RET learned how to use her role as Lead Team member, a vertical team leader, and a 3rd-Grade Team member to develop power within the school to advocate for classroom teachers and enlist the principal to negotiate district mandates she considered a hindrance to effective teaching. She said that she has gained confidence because "I truly want to do what's best for my children each and every day." The CSS was new to her position as the

Communications Vertical Team leader. She said, “As the year’s gone on I have been more concrete with some of my missives, and definitely next year when I make a decision, I think they’ll [teachers] realize that it’s the right decision.” The ISS was new to her positions as ISS and testing chairperson. She improved her time management skills to adjust to the pacing of testing while being able to work on teacher development through the classrooms. She reflected that “I definitely had to ask a lot of questions and get clarifications” as a novice in her positions. The SPED teacher worked closely with her collaborating teachers to learn new instructional strategies as the school year progressed. Upon reflection, she said she learned “a lot” but wanted to give more. She “didn’t do enough to reiterate to my cooperating teachers what the special needs students’ disabilities are.” The participants in general not only learned to adjust to the changes developed with each new school year, they also learned how to make improvements to their own practice and development. Even when programs and practices remain the same on paper, the learning from the practice of implementation from each year informs the next year. In addition, the change in faculty membership and the change and growth of the student population alter the educational environment at least once a year. Adjustments, both in practice and people, often necessitate change throughout the school year as well. Information circulating within the micro environment and information exchange between the micro, meso, and macro environments require knowledge attainment that may be in response to information that is unclear, uncertain, or ambiguous. The information may also require different levels of the environment to engage in equivocation in order to manage competing interests. This was primarily evident when district assessments conflicted with school monthly assessments. The school made adjustments to allow the district testing to remain on schedule.

Amending the use of Adult Learning Theory as a Decision making Model

Considering adult learning theory in its entirety as a decision making model for individuals in schools, some amendments to the adaptation of Mezirow's ideas may be justified to accommodate the realities of the micro environment in schools. The restructuring of the Lead Team, which the principal engaged in prior to the start of the school year examined for this study in response to what she referred to as unethical and dysfunctional trends with some teacher leaders, created a decision making environment relying on more autocratic rule when it came to school-wide decisions. Individual adult transformational learning (diagramed in Figure 1) did occur among individual decision makers in the study, albeit some stages were manifest in a compressed fashion. It is, however, difficult to observe the adult learning process in action as it occurs in individual learners. The adult learning theory was complex and contained many stages which are usually not fully revealed without individual reflection after the cycle has been completed. This research suggests to fully articulate how each stage of the cycle is manifested in the decision making process requires some degree of guided reflection for the individual. Those studying the micro environment may be challenged to capture how the adult learning occurs only through observation. In addition, the school environment may not lend itself to recognizing a single dilemma through which the adult learning cycle can be followed through to the reintegration of perspectives. Transformation learning theory is often used when a discernable trauma or, at least, a recognizable life altering event occurs for a person. While the supposition at the start of this study was that NCLB was such a trauma to the school environment, it was not perceived as such at the time of the investigation. Most school workers do not encounter such traumatic or life altering events while performing the daily tasks associated with their jobs. This recognition does not render adult learning as a decision making theory impractical or obsolete.

During the course of this research, it became evident the principal controlled the organizational structuring and positioned those who she felt shared her vision and values in key leadership roles. The impact was for "group think" to prevail above organizational learning (Janis, 1972). The Lead Team members demonstrated a tendency to conform to what each takes to be the group consensus. The Lead Team members, some of whom also served as vertical team leaders, were deeply involved in a cohesive in-group. Their desire for unanimity subsumed their motivation to appraise alternative courses of action without direct or implicit principal support to do so. Adjustments to the adapted adult learning model used as the foundation for this study prior to data collection seems necessary to accurately reflect the data derived from the interviews. In addition, making modifications to the decision making model may make it more applicable to the school environment.

Rather than starting with a disorientating dilemma, in education environments, decision making may start with the *recognition of a dilemma*, which can be a routine problem or a rare event, gives direction to the learner. The *self examination* stage can be subsumed under the *critical assessment* stage. School based adult learning and decision making occurs at a rapid pace; examining the learner's perceptions may emerge with less difficulty when examining what is known about the problem as a whole. The *recognition of others* is critical in a school environment where interaction and involvement with others is unavoidable. As part of *development of a plan, exploration of new roles and gaining knowledge* may be subsumed. Using strategies of strategic planning at this stage may incorporate new roles the learner must explore and capture the new information gained, which may or may not be transformed into knowledge yet. The *tried out plan* should focus more on recounting what has worked and failed in the past and compare how past actions are similar or different from those proposed in the plan. The

individual learner should then articulate what is now known that was not known before the problem was identified and the cycle of decision making was engaged.

The modifications to Mezirow's theory for school use is diagrammed in figure 7. Figure 1 provides the original theory for comparison.

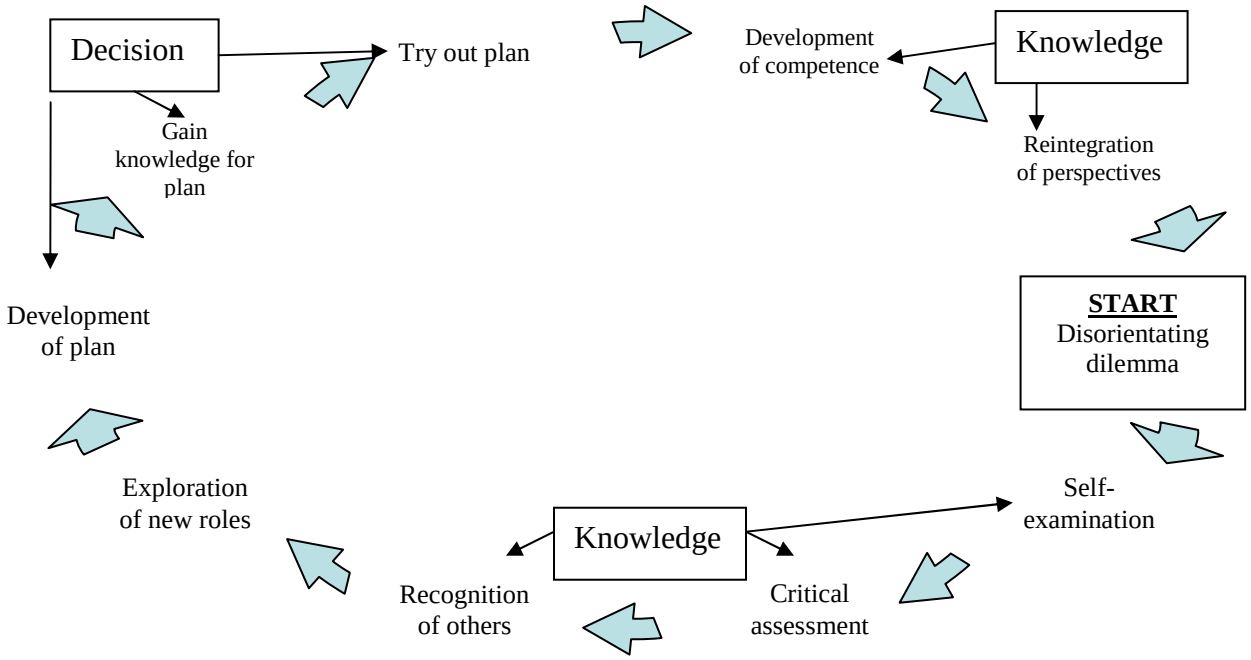

Figure 7: Mezirow's transformation theory (Adapted from Mezirow, 1995)

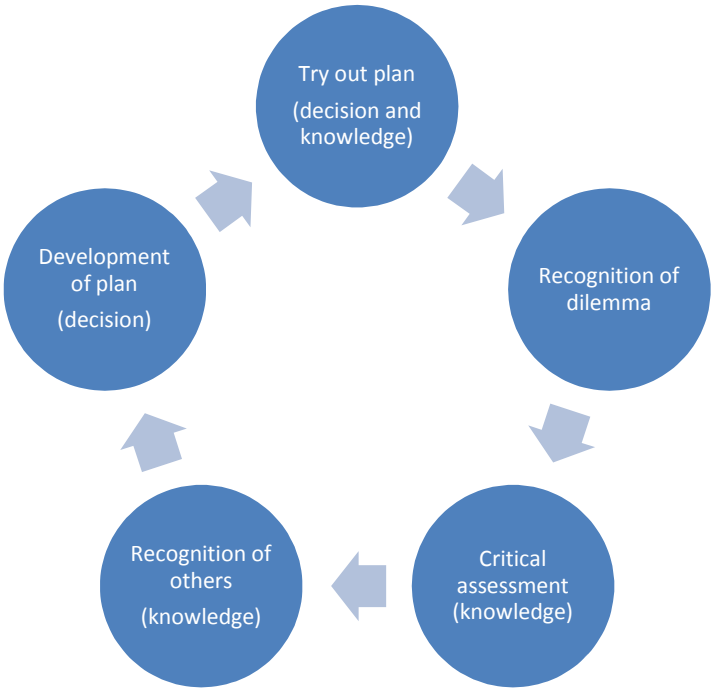

Figure 7: Amendments to Mezirow's transformation theory adapted for schools

The findings from this study suggest the recommended modifications to the adult learning theory as a decision making model are guided by the micro environment as organized by the principal. The priorities of the micro environment, which accounts for meso and macro influences seems to determine the pace of adult decision making, the resources and information available to gain knowledge, and the involvement individuals have in the decision making process resulting in exposure to a cycle of learning and new perspectives. The process adults use to gather, understand, and use information as knowledge seems to be a local phenomenon rather than being guided by policies or laws, even one as powerful and encompassing as NCLB.

Considering stages of Mezirow's theory were combined to accurately reflect the data analysis for this study, it may be necessary to consider a more appropriate decision making model altogether. Argyris and Schon's theory on congruence and learning may suggest the dynamic between espoused theory and theory-in-use demonstrated and articulated by the

participants. The double-loop model could be applied to the data from this study to describe the principal's tendency toward autocratic leadership and the teacher-leaders' distinctions between what they do and what they say they do. Argyris and Schon (1974) defined espoused theory as the world view and values people believe their actions are based upon. Theories-in-use are the world view and values people imply through the actions they take. Argyris (1976) argued for an emphasis on double-loop learning, in which the basic assumptions behind views and values are confronted and processes can be challenged.

> Every significant Model II [double-loop] action is evaluated in terms of the degree to which it helps the individuals involved generate valid and useful information (including relevant feelings), solve the problem in a way that it remains solved, and do so without reducing the present level of problem solving effectiveness (Argyris, 1976, p 21-22).

The double-loop model contains elements of Habermas' (1984) emancipatory theory framed as a decision model. The teacher-leader participants in this study expressed an understanding of the underlying values the principal acted from. They were willing to act as agents of their own hegemony in the service of consensus building and groupthink. The teachers interviewed for this study articulated a loyalty to the principal and a belief that she was the one held accountable for actions and outputs from the classroom throughout the school. The district also began implementing more oversight and controls in the wake of an increase in due process requests with special education and testing irregularities resulting in ethics investigation at other schools. In addition, fiscal turmoil was leading to job elimination and intensive personnel scrutiny from the district through the state's demands that the district comply with Standards of Quality in terms of staffing allocations. Teachers expressed an understanding for the decisions the principal made and sympathy for the difficulty of her job. A decision model that incorporated a method to identify the disconnect between espoused theory and theory-in-use and articulated

the governing values leading to proposed action and strategy may provide insight into the real adult learning experienced by the participants in this study.

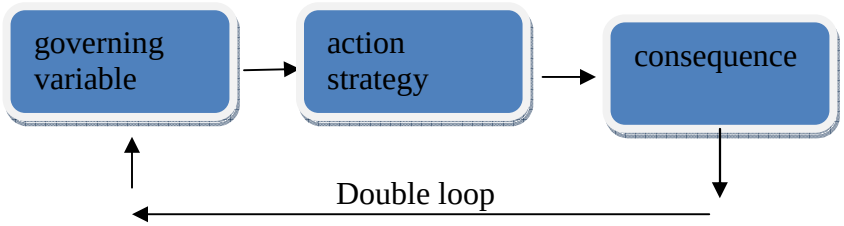

Figure 8: Double-loop learning

Implications

The findings from this study offer implications for adult decision makers in schools as they operationalize the micro environment, negotiate environmental influences, and function as individual learners in schools who must gather, make sense of, and utilize information as it is transformed into knowledge.

Implications for Decision Making in Schools

This study suggests a principal can wield a great deal of power within the school environment. The principal has the authority and power to organize workers within the school in any configuration she chooses with consideration given to contractual protections, personnel certifications, and fiscal limitations. Explicit power seems to trump collegiality. School leaders need to reflect on what they are doing through collaborative structures. They need to recognize and be honest when they are using groups to gain input into logistics rather than for authentic decision making. School leaders should reflect about the issue of who makes decisions in a school and whether teachers, acting as alone or as individuals within a group, are truly empowered to make and implement decisions and at what level within the school teachers are

able to make decisions. The ability to structure the organization by allocating resources serves as a powerful tool to set priorities and guide, or control, decision making through the filtering and validation of information. A strong, experienced, and powerful principal can set a vision, set and prioritize goals, and require outputs from individuals that demand, by default, time be used in specific ways. When the powerful principal is seen to be acting in the best interests of students and not acting for self promotion, the principal may demand measurable results to foster accountability. The school chosen for this study was nominated by multiple leaders throughout the district as a school that modeled data-driven decision-making through perceived collaborative teaming from the classroom through the principal leadership team. After the initial inquiry with the principal, the school was a compelling site choice because of the consistent and routine team meetings within a logical school governance framework. It was assumed through the construct of this study that with the groups serving as a constant organizational construct, the research could delve into the individual participants without much fluctuation in group norms. What emerged through this study was that the organizational norms were the driving force for decision making. Although individual participation on teams was high and, in fact, required, participatory decision making was limited to classroom level implementation. The school was considered productive by school leaders who recommended the school, and it was nationally recognized. Teacher turnover was average for the district, and teachers were often recruited to promotion to instructional specialists' positions throughout the district.

With the recognition of principal power, policy makers at the meso and macro levels may need to challenge the notion that external accountability mandates, such as the high stakes testing associated with NCLB, are the driving influences on school operating procedures.

In addition, decision makers may need to consider their actual role in the decision making process and whether they are emancipated workers. Staff members may be empowered to problem solve. Yet, reflection should be given to determining if they had a voice in determining what the problems are and how problems are articulated. Hargreaves (1994) identified much of the participatory reform in schools as *contrived collegiality*, rather than genuine participation. The work of groups was continual but meaningless and even served as a disciplinary practice to normalize individual's behavior toward institutional goals of increased productivity and worker motivation. In theory, teachers are not *supposed* to be emancipator thinkers in which they free themselves from the politicized values of group think. The participants in this study may not recognize the distinction between genuine and contrived participation and may be led to believe they have more power and more decision making authority than really existed for them in the school.

Some school members may have a disproportionally strong voice in the building compared to colleagues of equal rank or even compared to supervisors (Gouldner, 1981). The Regular Education Teacher (RET) was placed in positions of leadership on three teams working at the grade, vertical, and building levels within the school. Her leadership roles increased her authority and, subsequently, her power within the school, especially as they placed her in direct contact with the principal as decisions were formulated. This power spilled over at the district level as her principal selected her to serve on committees, such as the one for textbook adoption.

When a principal leads a school for a relatively long time, such as the principal in this study who has been at the helm for 14 years, implications exist concerning organizational inertia (Hannen & Freeman, 1984). When a school is moved in a certain direction, it becomes difficult to change directions, and there may not be an opportunity or forum to identify if change is

needed. There exits the potential for a principal with autocratic tendencies to move a school in the wrong direction without timely checks and balances in place to ensure corrective actions occur when needed. There is a fine line between being a strong and effective principal and being one who engenders fear in workers such that performance is weakened and improvements become stagnate. This study found support for the literature that suggests the principal ultimately controlled knowledge and resources in the school "defended administrative turf," and viewed collaborative groups as "channels for dispensing information, moderating criticisms, and garnering support, not as arenas for redefining roles, sharing power, and making policy (Anderson, 1998; Hanson, 1979; Malen & Ogawa, 1988, p. 259; Marshall, 1992). Although there is a risk of this occurring in this school, the principal mitigates it by demanding consistent adherence to a programmatic model of school structure while the operational details are open for negotiation. Alternative procedures are welcomed as long as the teacher can justify the benefit to student gains. There is a perception among the participants in this study of the principal being willing to listen to any idea that may better the school with the understanding the decision to act upon ideas belongs to the principal. This pertains to ideas that impact the entire school or large segments of the school population. Teachers still retained considerable decision making authority about instructional strategies at the classroom and grade levels.

Decision makers should consider what information is available, how information is made available, and who makes information available to school members, especially when interacting among the meso and macro levels. This has implications for how teachers, teacher leaders and other school-based decision makers perceive their roles and how principals support them. When principal power is strong, there may exist a tendency for teacher leaders to forgo individual

learning in support of individual decision making and, instead, subsume their power within a forum that seeks principal approval.

Implications for Schools Negotiating the Environment

The implications for schools negotiating the meso and macro levels of the environment concerns the idea of sense making and the practice of opposition. When school leaders engage the environment, it is usually in a negotiation of the standards for implementing policy. The findings of this study do not suggest negotiation is synonymous with opposition to policy external to the school. Rather, school members want to implement policy; the difficulty exists through the interpretation of policy and how it is meant to be operationalized.

Micro level agents act to "construct ideas about state and national standards" (Spillane et al., 2002, p. 419). When the school members misinterpret policymakers' intent, the implementation will likely fail. Implementation fails not because "implementing agents reject" the ideas within the policy "but because they understand them differently" (p. 419). The top-down nature of the educational environment is echoed in the "top-down nature of comprehension" where expectations "influence perception and guide the interpretation of ambiguous events" (Spillane et al., 2004, p. 398). When uncertainty or equivocality occurred, the principal was in the position to attempt to oppose district level programs she felt were not productive for the school. She knew district administrators, and they knew her. She presented a case to district decision makers requesting exemption of certain program implementation in the school. She touted the school's high SOL test scores and the many awards the school has been recognized with. By having success and by being powerful, she managed to prevent all but one of the first-grade district programs form being implemented at the school.

In this study, sense making as an adult learning process was evident when the administrators and the SPED teacher sought understanding and clarification about special education policy and procedures as it flowed from the federal law to the states to the district, and then to the school. The district retained the authority to strengthen regulations or offer interpretations when the policy or law was not clear. For example, the SPED teacher questioned her appointment as a case manager for Section 504 plans. Section 504 plans derive from the Section 504 of the Rehabilitation Act of 1973 (http://en.wikipedia.org/wiki/Section_504_of_the_Rehabilitation_Act) , and are usually approved for students with limiting medical conditions for which school-level accommodations are deemed appropriate. Although Section 504 plans are subsumed under special education, they do not require a certified special education teacher as a case manager, similar to gifted education. The district agreed with the SPED teacher although the policy was not clear about how Section 504 plans were to be managed. Another area where sense making was revealed was with Title I fund allocation and reporting. The ISS and the principal were primarily involved with Title I concerns. The principal had to learn how she could add staff under Title I provisions. The ISS had to learn how to compile information required for reports requested from the district on behalf of the state and federal governments. She had to learn which district leaders to use as sources for information, which information was reliable, and how to transfer the information she received to the school to capture the correct data in the correct way.

When school members engage the environmental levels, a fundamental requirement is for the decision maker to be able to recognize inconsistencies in information and incongruities in details in the context of relevant structures in order to determine what violates expectations and what requires restructuring existing knowledge. In other words, the school member should have

direct access to meso and macro information in order to see new ideas as indeed new, rather than meso and macro information filtered into existing and familiar structures. These structures may actually be an obstacle to implementation (Smith et al., 1993; Spillane & Callahan, 2000; Strike & Posner, 1985). In addition, teachers are demanded to work faster rather than reflect and respond as professionals (Hargreaves, 1994), which further inhibits their capacity to identify and address knowledge attainment needs and problems.

Even when teacher leaders have access to information, they may not be compelled to restructure knowledge or act on existing knowledge if it conflicts with the values and views of the principal. In addition, teachers who aspire to become administrators may willingly internalize false ideologies and serve as agents to their own hegemony if they perceive an autocratic leader to be successful and a model administrator. In doing so, they may serve a role in maintaining and reproducing power structures that may perpetuate inequity among teachers. In fact, this tendency could be why substantial school reform has been elusive. Reform efforts that rely on strong building leaders may, in fact, engender a type of disabling group think if school leaders are kept in their positions too long.

The implication for states is the need to be aware of how policy is interpreted and manipulated at the district level. When state policy is filtered to schools, it may or may or not be perceived as out of context and thus seen as ambiguous or unclear. When this occurs, school leaders may feel at liberty to provide an interpretation that situates the policy in familiar terms and structures. The district faces the implication of uncertainty. District leaders may need to ensure the policy articulated from the state is operationalized in schools in ways that allow flexibility for unique school-based contexts, yet remains in compliance with the mandates. Any policy based on an interpretation of macro policy by the district creates an opportunity for

schools to question, negotiate, or resist. The implication for principals is the need to be informed enough to know what is direct, immutable macro policy and what is interpreted by the district. Then principals need to know what authority and power they have to negotiate or resist. Principals with little power or little knowledge face the prospect of experiencing an uncontested flow of information into the school and no means to counter the flow in with a flow of information out to the district. The implication for teachers relies heavily on the ability of the principal to work with the district and to protect the integrity of instructional programs.

The findings from this study are a function of the topics discussed as part of the macro environment through the meso and into the micro realm. There is scant (but enough) evidence in the data from this study to suggest if only micro level (as opposed to school level) decisions were examined, more emancipatory thinking would emerge. The teachers in this study were intelligent professionals who knew the limits of their influence over school-wide decision, yet knew when and how to question their individual practice and use of resources and skills. If this study were removed from the context of school level groups designed to implement the will of the Lead Team as envisioned by the principal, more evidence of individual learning, capacity building, and questioning of organizational power structures may emerge. The participants highly regarded the principal as a thoughtful, considerate thinker who strived to gather the best information and make the best decisions. When the decisions did not require reporting out to the district or state, she seemed willing to allow the teacher leaders to problem solve and handle the work associated with their jobs.

Implications for the Application of Theory in Schools

When applying theory to a sector or institution, such as education or learning, it should be understood that the application may have merit for accounting for patterns in a global sense.

When attempting to apply theoretical constructs to a specific sector, such as a school, the norms and rules may limit the ability of the researcher to aggregate data (DiMaggio, 1998). The reliance on institutional theory may cause the results to be "deterministic, focusing chiefly or exclusively on how institutional context shapes human agency" (Spillane et al., 2002, Weick, 1995). An institutional application may ignore how individuals make sense of the environment and determine outcomes.

The use of adult learning theory as a model for examining individual decision making enabled the data collection to be thorough and inclusive. Without adapting the theory to learners in a specific organizational structure, the theory may constrict the application of data to analytic methods if it does not consider the realities of school life and the practicalities of daily decision making in a school. In other words, to maximize the data collection through application of theory, the theoretical construct should be adaptable to school-specific organization structures. The leadership style of principals, the experience level of the staff, and the programs used to drive the instructional program may impact which parts of the theory are operationalized in a school and how the theory serves the research methodology.

Discussion of Methodology

Theoretical Foundation

Mezirow's transformation adult learning theory (1981, 1991, 2000) was adapted as a lens through which to view decision making. The school that served as the research site had instructional leaders on staff who were new to their positions during the 2009-2010 school year or who were still in novice years of professional growth (1-3 years). Adult learners have a different history of experience than children. They not only have their personal lived lives, but they have complex social and work histories that contribute to how lived experience is

understood and constructed into reality. The new perspectives that adults gain are rich in reflection and negotiation of contested meanings (Mezirow, 1981).

This study revealed that adult learning may not be a useful model to examine individual decision making in a school. The primary tenet of Mezirow's transformational learning as a process for decision making hinged on the existence of a distinct traumatic experience from which knowledge acquisition and utilization can be traced and followed. In this study, the experience the principal had with uncooperative team members during the previous school year approximates this criteria, but no other distinct reactions to the traumatic type of disorientating dilemma was found among the other participants. When conceiving this study, it was assumed NCLB would serve as the disorientating dilemma that was the underpinning to the decision actions and outputs of micro level workers. This was not the case. In addition, adult learning theory relies on the capacity of the learner to have a strong level of emancipation in order to recognize alternatives and devise solutions. This study found the school leader participants either did not have emancipation or willingly became agents of their own hegemony. Adult learning theory also relies on the participants to engage in deep reflection to recognize the source of the dilemma. The participants in this study seemed to agree with the value of the principal as the final decision maker and the one ultimately responsible for all outcomes at the classroom and school levels.

A more appropriate model for future studies in this area may be one based on Vroom and Yetton's (1973) Normative Model for decision making. While Mezirow's theory is based on conflict resulting from dilemmas, Vroom and Yetton focus on the ways collaboration exists within an organization. Utilizing five decision procedures based on *decision quality*, which is the selection of the best alternative, and *decision acceptance*, which is the degree to which followers

accept a decision made by the leader. When decision quality is more important, leaders typically focus on decision acceptance (1973).

This study suggested principals direct decision making more than teachers think or want to admit. Even in a school considered to foster a strong collaborative environment, the collaboration most likely does not occur as frequently as those internal and external to the school perceive. In addition, the collaboration that exists will likely occur at the classroom level and not be employed when school-wide decisions need to be addressed.

Structure of the Study

This ambitious study attempted to capture the full range of learning and decision making operationalized by an engagement with the entire educational environment to whatever degree it would be possible to uncover. In the specific research school site decision making was not as much of a dynamic, intensive, or contentious process as theorized (Mezirow, 2000**)**.

The process individual adult decision makers within the school environment used to gather, understand, and utilize information as knowledge was examined through a decision making model adapted from Mezirow's adult learning theory (1981, 1991, 1996, 1997, 2000). Group observations and individual interviews were used to capture the process. In a school, however, the type of "disorientating dilemma" usually associated with a trauma or life-altering event that Mezirow studied does not often manifest through structured groups during scheduled meetings to cover an agenda. The methodological implication is the need for an understanding of how dilemmas arise in schools and devise a protocol to identify appointed and de facto decision makers. In addition, methods would need to be developed to allow participants to distinguish dilemmas leading to transformation, which is learning that builds capacity to adjust to new

realities (Mezirow, 1996,1997) versus dilemmas leading to task completion using existing knowledge.

The concept of decision making was operationalized in this study through observing collaborative teams and interviewing team members after meetings. Decision making was considered as being integrated with adult learning. The decision making theory used for this study (based on adult learning) was not designed to explore routine decisions individuals make that did not lead to acquired knowledge and new perspective. The implication was for the interview protocol to help the individual participant distinguish between decisions made with existing knowledge and through familiar structures as opposed to decisions where the individual was required to gain capacity to adjust to new realities.

The educational environment is defined by this study as the micro (school personnel), meso (school, district, parents, community) and macro (state, federal, and global) factors which influence individuals as they acquire knowledge and make decisions. With micro level participants being the ones interviewed, research structures were required to categorize which interactions constituted engagements external to the school. In addition, information needed to be identified as micro, meso, or macro generated and any manipulation or interpretation of that information when used in the decision making process needed to be noted.

The school had an established, stable, effective, and organized decision making forum. The principal had a firm and clear vision for what would and would not be considered when making school-wide decisions according to data gathered from observations and interviews.

The three groups selected for this research were selected in part because of the principal's engagement with them and in an attempt to operationalize decision making for this research study.

Perhaps a study that shifted more to an examination of adult learning may have revealed how the instructional leaders talk themselves through critical moments when knowledge is created, new perspective is gained, and decisions develop from such a transformation.

Recommendations

Practice

As a matter of practice, education leaders (micro, meso, and macro) should consider the complexity of adult learning. It requires time for adult members of a school to make sense of information and transform information into knowledge that increases the capacity for individuals to address problems. In addition, not all school members receive the same information or receive the same information at the same time. At the micro level, building leaders should consider the impact of time constraints on the instructional staff and devise organizational structures that promote and build norms of creativity and pedagogical exploration into the fewest number of meetings.

Principals, in particular, need to be cognizant of the appointed leaders versus the de facto leaders within the school. The Regular Education Teacher (RET) in this study was not the appointed leader for the 3rd-Grade Team; however, she led the team in many ways because her leadership on a vertical team and her membership on the Lead Team provided her with access to information and insight into the thinking of the principal that the other grade level team members relied upon. Principals should ensure they meet with appointed leaders and task those leaders with specific, measurable objectives and require them to report directly to principals with input and output data. De facto leaders should be openly acknowledged by the principal. The knowledge that school leaders function in positions other than as administrators should be

transparent. Administrators should make it clear they rely on teachers with proven expertise and experience to assist with decision making and supervisory responsibilities.

Micro level leaders should also consider the allocation of authority and power. The principal in this study was a charismatic, experienced, and powerful leader. She developed a vision for the school, developed the school's organization structure, and chose the student intervention model which served as the underpinning to the instructional program. Yet, she did not act on behalf of self-promotion. She worked with her team to develop goals based on her vision and gave voice to those who were in the best positions to achieve the goals. She fostered leadership through the Instructional Skills Specialist (ISS), the Communication Skills Specialist (CSS), and the Regular Education Teacher (RET) by encouraging them to act on behalf of the school administration. Unless principals desire autocratic rule as a permanent leadership style, they should engage in reflective activities and training which promote empowering school workers with decision making beyond their defined positions. School workers should assist with defining and adjusting organizational models in the school, and they should originate problem identification and solving. In situations where risk taking is appropriate, principals should monitor the decision making process of individuals and allow plans to be tried *before* intervening with suggestions. Suggestions should be discussed if some degree of failure is experienced. This would foster creativity and learning in the school's adult population.

Meso and macro leaders should also encourage school leaders to develop leadership among teachers specific to the school's needs and goals. District level leaders in this study usually transmitted information to principals and allowed them to disseminate it to the staff. This resulted in the principal deciding on the information to release to the staff, and it required teachers to rely on the principal to transmit information they may be waiting for if content

coordinators at the district level did not send information directly to teachers. District leaders and state, federal, and global leaders should be transparent when appropriate and open in the delivery of non-secure, non-confidential information directly to those employed in school and those with children enrolled in schools because the principal need not be the information reservoir from which the staff must rely to gain the knowledge related to their jobs. A wider dissemination of factual information may reduce confusion and prevent conflicts from escalating. In addition, meso and macro leaders should examine programs and policies related to developing decision makers in schools.

Meso and macro leaders should serve as boundary spanners (Honig, 2006) to support the collaborative implementation of policy. In doing so, meso and macro leaders should develop structures to recognize inconsistencies in information, how information is understood, and what individuals need to develop knowledge and decision making capacity (Spillane et al, 2002), especially if information was more widely distributed and not filtered through the building principals primarily. Coburn (2001) described how educators in different groups within the same school understood, or made sense, of the same policy message in different ways. Meso and macro leaders should consider the individual when transmitting policy and assist principals with the transfer of policy directives in school specific ways.

Policy

Micro level school leaders should take initiative to formally address the "rules" that hinder school members from acting in productive and efficient ways. The RET in this study learned how to avoid following certain district mandates for pacing and implementation of curriculum as a means to accomplishing necessary work directly leading to student mastery of social studies content. Principals, assistant principals, and team leaders should utilize adult

learning theory operationalized through decision making to identify when policies, which represent a system of practices, are out of context or incongruent with the instructional objectives of the school member. Policy is less likely to be rejected when it is grounded in the curriculum students study, allots for time for teachers to implement, and spans multiple dimensions of the practice of teaching (Cohen & Hill, 2000). School leaders should resist rejecting policy and, instead, work with district leaders to negotiate the interpretation and adjustments to policy.

The meso level leaders at the district level should consider methods to serve as boundary spanners (Honig, 2006) to seek, gather, and consider the impact meso level interactions have on micro level members. Although site-based management was no longer a district organizational model, some policies should be considered by the district which would allow all school leaders (not only those with high test scores) to recommend programs, intervention strategies, and personnel requirements to the district. The district should avoid succumbing to a one-size-fits-all approach. Principals should not have to rely on positions of power to "fight" for or against programs as was the case in this study.

Meso and macro level leaders should also consider taking more of a leadership role in promoting professional development for micro members in the area of environmental awareness. School staff may not have direct exposure to the processes and information guiding meso and macro policy making. They may not understand the interaction among micro, meso, and macro level influences. Much of the information circulated throughout the school studied for this research was filtered and packaged by the principal. Other school members should understand where that information comes from and how it is transformed through the three levels.

Research

Recommendations for future research would be to use the broad data presented through this study as a basis to continue talking to instructional leaders about transformational learning. The decision making theory (adapted from Mezirow's Adult Transformational Learning Theory) utilized in this study was amended in response to the findings. Using the revised theory, future researchers should consider conducting research with educators at a school site (micro level) to test the operational ability and practicality of using learning theory as a foundation for individual decision making in schools. Using the understanding of the micro, meso, and macro environments and the nature of communication and decision making in a school as a foundation, future researchers could isolate adult learning as a part of the decision making process. Using a narrative approach and repeating the methods described in this study is recommended. Another round of interviews could include those instructional leaders who have one to three years experience in their current positions. Interviewing educators during the novice stage of their careers may provide additional insight into what transformational learning looks like for decision makers.

An additional recommendation is to consider another decision making model altogether. Argyris and Schon's theory on congruence and learning may suggest the dynamic between espoused theory and theory-in-use demonstrated and articulated by the participants. The double-loop model could be applied to the data from this study to describe the principal's tendency toward autocratic leadership and the teacher-leaders' distinctions between what they do and what they say they do.

Conducting more interviews would continue to broaden the sample. Other teachers working in different schools in different districts in different parts of the country would produce

different experiences. In addition, studying other informal or formal team members within a school as they engage environmental influences outside of direct influence of principal power may lead to exploration of other characteristics of adult learning and decision making. Also, studying a site for more than one school year may be a method future researchers could use to guide respondents through their decision making process.

Another recommendation is to narrow the research questions to examine if and to what extent the micro environment drives decision making. This study was concerned with how individuals gain and manage knowledge across the micro, meso, and macro environments. It may be useful to determine what decisions are made at schools within the micro level domain.

Concluding Remarks

The design of this study influenced the research findings. This study was oriented toward uncovering human experience. The primary concern was exploring human subjectivity. The teachers and administrators, who are still teachers, all spoke of the importance of their work in educating children. They also mentioned the struggles and rewards experienced as they learn to navigate and negotiate the educational systems. By and large, the participants in this study saw themselves as lifelong learners, who are never quite comfortable with the current state of their knowledge.

They see their own knowledge and learning as tools of influence. In the school environment studied here, information and power carried tremendous weight to getting ideas discussed and actionable decisions made. The participants in this study made a connection between adult intellectual growth and student performance. It became a belief that in order to increase student performance adult capacity must be expanded. This was demonstrated through the principal's focus on professional development, the work of the AP to manage the building

while the principal engaged a variety of school teams and lead the special education teachers and program to ensure the success of students with disabilities, the work of the ISS to provide a proper testing environment for the students and model lessons to work with teachers in the classroom, the work of the CSS to develop reliable and valid school-based monthly assessments for students that also inform teachers about the students to focus intervention support, the work of the SPED teacher to educate her regular education collaborative teachers about the individual needs of special education students, and the work of the RET to represent the classroom needs of students and teachers as the only classroom teacher to serve on the Lead Team.

The educational environment is a dynamic and complex set of systems. Even at each of the three levels (the micro, the meso, and the macro) there exist multiple internal levels operationalized by people who gather, understand, and use information differently and at different times. Decision making in schools may manifest as the output from collaborative teams, yet decision making is an individual construct. School groups, after all, are comprised of individuals who come together to attempt to build consensus for ideas.

> Collaboration has repeatedly emerged as a productive response to a world in which in which problems are unpredictable, solutions are unclear, and demands and expectations are intensifying (Hargreaves, 1994, p. 245).

In the reality of school life, not all group members may have the same information, the same capacity to make sense of information, or the same power with which to use information as knowledge to influence decision making. The influences from entities outside of the school, such as parents, the district, the state, federal agencies, and global factors flow into the school at varying rates and with varying clarity.

This study challenges the idea that participation in decision making necessarily translates into participatory decision making. Shared governance may not result in significant participation

in decision making. It may result in contrived collegiality (Hargreaves, 1994), and create control mechanism for school or district leaders over teachers (Anderson & Grinberg,1998). Individuals may contribute to building collective knowledge in important ways. They may not, however, be empowered to make decisions without the validation and support from a higher power source. The school examined for this study was considered a highly successful school, yet teacher empowerment and distributive leadership were not hallmarks of the organizational model devised and controlled by the principal.

Educators experience growth and impact performance without necessarily being decision makers. While the prevailing literature tends to equate teacher capacity with school-based decision making, the findings from this study suggest teacher capacity and development does not necessarily have to be linked with school-based decision making, but it can also be powerful in terms of student outcomes. This brings into question whether workers must be and even can be emancipated to be effective (Habermas, 1987). If it is accepted that emancipatory workers challenge “tacit assumptions of discursive practices and power relations in order to exert more control over their everyday lives" as a form of empowerment (Kincheloe, 2008), then teachers must be able to engage in “authentic participation” (Anderson, 1998).

The discourse of participation has “been used to promote a variety of – often contradictory – social policies used as a cover term for institutional arrangements” management uses to “support an inequitable status quo” (Anderson, 1998, p. 587). There is evidence in this study and in organizational theory suggesting the institutional goals members buy into are determined elsewhere, are the product of a leader’s vision, or are embedded in general mission statements. Participation is not necessarily used to “create or challenge goals but to incorporate members into existing ones” (Anderson, 1998). When teachers participate in micro-level

decision-making structures, they may believe they are participating in activities to control their environment in a "climate of distrust of large public bureaucracies" (Anderson, 1998). In fact, they may be contributing to *legitimating rituals* (Meyer & Rowan, 1977) to make the school appear responsive, democratic, and current with trends in the business sector.

Perhaps it is part of administrators' responsibility to lead teachers to acceptance of agreements "to put aside differences and conflicts and rally to common goals" (Marshall, 1992). When schools rely on collective agreements, administrators are tasked with orchestrating the continued belief in those agreements (Anderson, 1990; Marshall, 1992). The postmodern world is fast, compressed, complex, and uncertain. As districts and schools attempt to respond to these realities by introducing a myriad of policies and dictate use of time, the work of teachers is intensified as they are held more accountable to school officials and the public (Hargreaves, 1994). Administrators are compelled to be skilled at managing meetings, "manipulating symbols, and limiting the diffusion of awareness of the conflicts and dilemma that rage in their day-to-day realities" (Marshall, 1992).

Individuals in schools may not be the authentic participants they believe themselves to be or a democratic society wishes them to be, because traditional bureaucratic controls prevent them from engaging in institutional structures as a way to be freed from those structures. This study sheds light on the idea that teachers can be effective deliverers of education to children and find avenues to act on individual values within the educational environment even when tightly controlled. More importantly, this study suggests school leaders may believe they are fostering genuine collaboration, when, in fact, they are in collusion to increase the power of dominant groups at the expense of individual power. This study did not explore, nor attempt to discuss, if this was good or bad or right or wrong. There should, at least, be an understanding of the micro

politics existing in schools and encourage educators to seek methods to identify and articulate how environmental knowledge and power is created, gained, transferred, and used in school decision making.

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Appendix A

Invitation to Potential Study Participants
(via e-mail)

You are invited to take part in a research study being conducted by Louis D'Angelo, a doctoral candidate at The George Washington University Department of Educational Leadership.

As a member of a decision making team at **** **** Elementary, you are being asked if you want to take part in this study, which will examine how collaborative decision groups in one school engage and negotiate the educational environment in order to render decisions. Your participation is voluntary and your decision to participate or not will not affect your employment status in any way.

If you choose to take part in this study, recordings of your contributions at your regular decision group meetings will be transcribed and integrated into the research data. You will be interviewed after each observation (for about 45 minutes).

Your identifiable information will not be transcribed or published. If you would like more information before you make your decision please feel free to respond to this e-mail or phone me at (757) 641-3027.

I will be attending a regularly scheduled meeting of your decision-making group to introduce the study and answer questions. At that time, I will give you an information sheet discussing details of the study. After the meeting, I will contact you to ask for your consent to participate in the study, which you would give by email.

Thank you,
Louis D'Angelo

Appendix B

Information/Consent Form

How a collaborative decision group negotiates environmental influences on school decision making

GW IRB number: 060947
Principal Investigator: Dr. Virginia Roach/Telephone number: 202-9943094
Sub-Investigator: Louis D'Angelo/Telephone number: 757-641-3027

1) Introduction

You are invited to participate in a research study under the direction of Dr. Virginia Roach of the Department of Educational Leadership, George Washington University (GWU). Taking part in this research is entirely voluntary.

2) Why is this study being done?

You are being asked to take part in this study because of your membership on a standing decision making team at **** **** Elementary. The purpose of this study is to study how collaborative decision groups in one school engage and negotiate the educational environment in order to render decisions.

The research will be conducted at the following location(s): **** **** Elementary School. A total of approximately 10 participants at one institution will be asked to take part in this study. You will be one of approximately 10 participants to be asked to take part at this location.

3) What is involved in this study?

If you choose to take part in this study, you will be observed and voice-recorded interacting in your decision group, you will be interviewed and voice-recorded separately and privately (for about 45 minutes. The research will be conducted from August 2009 until December 2009.

4) What are the risks of participating in this study?

Possible risks and discomforts you could experience during this study include:
There are no physical risks associated with this study. Every effort will be made to keep your information confidential, however, this cannot be guaranteed. Some of the questions we will ask you as part of this study may make you feel uncomfortable. You may refuse to answer any of the questions and you may take a break at any time during the study. You may stop your participation in this study at any time.

5) Are there benefits to taking part in this study?

You will not benefit directly from your participation in the study. The benefits to science and humankind that might result from this study are gaining unique insight into how a decision group selects and uses environmental influences to manage knowledge and render decisions that guide actions.

6) What are my options?

You do not have to participate in this study if you do not want to**.** Should you decide to participate and later change your mind, you can do so at anytime.

7) Will I receive payment for being in this study?
You will not be paid for taking part in this study.

8) Can I be taken off the study?
The investigator can decide to withdraw you from the study at any time. You could be taken off the study for reasons related solely to you (for example, not following study-related directions from the Investigator) or because the entire study is stopped.

9) How will my privacy be protected?
If results of this research study are reported in journals or at scientific meetings, the people who participated in this study will not be named or identified. GW will not release any information about your research involvement without your written permission, unless required by law. To control the risk for breaching confidentiality, the transcribed recording will identify speakers as "Speaker A," "Speaker B." etc. The protection of human subjects was ensured through the IRB process. All data collected were stored in a locked file cabinet with any identifying information stored in a separate file and separate drawer in the cabinet. The collective experience is the focus of this study; therefore, the use of personal subject information is not needed nor used.

10) Problems or Questions
The Office of Human Research of George Washington University, at telephone number (202) 994-2715, can provide further information about your rights as a research participant. If you think you have been harmed in this study, you report this to the Principal Investigator of this study. Further information regarding this study may be obtained by contacting Dr. Virginia Roach, dissertation committee chair, at telephone number (202) 994-3094.
*Please keep a copy of this document in case you want to read it again.

If you agree to participate in this study, please sign below:
11) Documentation of Informed Consent
I understand the information printed on this form. I have discussed this study, its risks and potential benefits, and my other choices with Louis D'Angelo. My questions so far have been answered. My signature below indicates my willingness to participate in this study and my understanding that I can withdraw at any time.

_____ _____
Subject's Name (printed) and Signature Date

_____ _____
Name (printed) and Signature of Person Obtaining Consent Date

_____ _____
Principal Investigator's Signature Date

Appendix C

Interview Protocol: Individual

1. Would you tell me about a time you made a decision as part of a group.
2. Would you describe the process the group used to make that decision.
3. What do you consider effective group decision making?
4. Would you describe what you consider in general to be your decision making authority as part of that group.
5. When you make a decision as part of a group what goes through your mind? What factors do you consider?
6. What factors constrain your decision making?
7. How does the group treat input from outside of the school? What form does that input come in?
8. How do you treat input from outside of the school? What form does that input come in?
9. Describe the importance of selection of members of the group?
10. How does the group handle conflict?
11. How do you handle conflict within the group?
12. Is there anything you would like to add about group decision making or your role in it?

Appendix D

Group Observation Protocol (first contact)

1. The observation occurs with a naturally scheduled meeting of the group.
2. Before the meeting begins, the researcher reviews the following protocol: (a) each member of the group receives an information/consent form and the research design is explained, (b) questions from the sample frame members are answered verbally by the researcher; the invitation to submit questions through e-mail is provided, (c) those who are comfortable signing the information/consent form are invited to do so.
3. The researcher may obtain consent from the building principal to attend meetings, but the first meeting is not recorded unless all members sign and turn in the information/consent form
4. Within an hour after the meeting, the researcher will reflect a summary of the process and the issues discussed
5. The participants will have an opportunity to clarify or add details for the official record for any recorded meetings where a transcript is developed.
6. The participants will be reminded of the protection of their identity. Any member of the group may request to have the recorder turned off at any time.
7. The summary of the observation will identify speakers by their job title to protect participant identity.

Group Observation Protocol (subsequent contacts)

1. The observation occurs with a naturally scheduled meeting of the group.

2. The researcher makes minimal contact, sets up the recorder, and relies on cue words signaling the meeting is beginning from the group leader.

3. Within an hour after the observation, a reflective memo will be written.
4. The participants will have an opportunity to clarify or add details for the official record for any recorded meetings where a transcript is developed.
5. The participants will be reminded of the protection of their identity. Any member of the group may request to have the recorder turned off at any time.
6. The summary of the observation will identify speakers by their job title to protect participant identity.

Appendix E

Document Review

For each document collected from the lead, vertical, and grade-level teams, the following document was used for coding purposes.

Document Name: _____

Type: _____

Date: _____

Origin: _____

Brief description of contents:

_____
_____
_____
_____
_____
_____