

THE ROLE OF MIDDLE LEADERS IN FOSTERING
ORGANIZATIONAL LEARNING IN A
STATE COOPERATIVE EXTENSION SERVICE

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Doctor of Education

by
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The undersigned, appointed by the Dean of the Graduate School, have examined the dissertation entitled

THE ROLE OF MIDDLE LEADERS IN FOSTERING
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Presented by Mary Simon Leuci

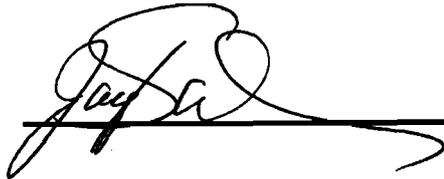
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And hereby certify that in their opinion it is worthy of acceptance.



Major Advisor









Dedicated to

my daughter Lena Rose Leuci,

my husband Victor A. Leuci,

my father Anthony Simon, who passed away January 24, 2005,

and my mother Teresa Simon,

who have each taught me a great deal about loving and learning.

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LIST OF ABBREVIATIONS

CDA	Community Development Academy
CLDC	Council Leadership Development Committee
CPD	County Program Director
ITV	Interactive Television or video conferencing
NELD	National Extension Leadership Development Program
PD	Program Director
RD	Regional Director
SELD	State Extension Leadership Development Program
USDA	United States Department of Agriculture

THE ROLE OF MIDDLE LEADERS IN FOSTERING ORGANIZATIONAL
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Mary Simon Leuci

Joe F. Donaldson, Dissertation Supervisor

ABSTRACT

Researchers have pointed to the importance of organizational learning for higher education in order to deal with globalization, new technologies, the explosion of knowledge, the widening gap between the affluent and the poor, declining public revenues, and the call for engagement and civic participation. This qualitative study explored the nature of organizational learning and the role of regional directors (RDs) and program directors (PDs) as mid-level leaders in fostering organizational learning in one cooperative extension organization within a land grant university. In-depth interviews were conducted with 79 persons comprising top leaders, middle leaders, campus and regional faculty, and state extension council members. Organizational documents and researcher reflections also contributed to the analysis.

Organizational learning occurred in four dimensions representing how the organization dealt with change, the directional aspect of learning across or up and down the organization, the formality and experiential aspect of learning, and the process versus content focus on the learning. Organizational learning involved adapting as well as challenging and changing operations and learning across the organization versus up and down the organization. An important part of the knowledge base of the organization was the experiential knowledge of its members. Some of the most important learning cited was the use of the process of involving constituents and faculty in teams to learn together

and develop solutions. Mid-level leaders were critical to organizational learning. RDs and PDs performed similar roles in their functions as designers, enablers, administrators and evaluators, and bridges to foster organizational learning. They fostered a culture of care and created the real and virtual space for learning through nurturing relationships, building trust, communication, and engaging people in dialogue. Also critical was the collaboration among RDs and PDs. Barriers to organizational learning were generally endemic to the organizational culture and structure, the external culture and structure, and leader behavior. The lack of a robust system for accessing the knowledge base was a notable barrier.

The results of this study suggest the importance of creating a vision for organizational learning. Supporting experiential learning and developing ways to tap the hidden knowledge of organization members will be essential to organizational success. Understanding how to nurture organizational learning and act as “knowledge activists” may be one of the most critical skills for leaders of the future.

CHAPTER ONE

INTRODUCTION

Background

Organizations—be they business, government, social or non-profit, or educational institutions—are struggling to understand, adapt, and re-create themselves in order to deal with the rapidity and turbidity of change that we face in today’s society. These changes include the emergence of the global economy, the rise of new technologies and information technology, the explosion of knowledge, the changing demography that portrays increased diversity and often an aging population, the widening gap between the affluent and the poor, and the resurgence of democratic concepts (e.g., engagement and civic participation). At the same time, we are experiencing fragmentation and balkanization, environmental degradation of our planet, and a loss of civility. The rise of terrorism and conflict is evident in local businesses, schools, and communities in nearly every country across the world. We also continue to witness the erosion of public trust in our corporations, institutions, and governments. Clearly, we live in a world where the increasing pace of change is itself a change that organizations of all sizes, kinds, and locations must boldly face. As a result, our post-industrialist society has placed new demands on organizations and their leaders where the “future has no shelf life” (Bennis, 2001, p. 5).

In response to these demands and the changing environment, society has changed. As Duckett (2002) noted, living in a learning society is a matter of survival. Duckett further contended that organizations have emerged as networks that seek to

maximise the capacities of all staff; develop collective intelligence;
knowledge about the organisation and its environment; reducing routine

jobs; weakening boundaries and hierarchies; enhancing the skill element of most roles; exploring concepts of specialisation and sharing expertise; emphasising the criticality of IT [information technology]; and placing great emphasis on “learning how to learn” or creating the “learning organization.” (p. 62)

Consequently, the demands on leaders of today’s organizations have changed as they seek to lead organizations that will thrive in today’s sea of change.

Statement of the Problem

A growing body of literature continues to emerge regarding organizational learning and learning organizations in business, education, and the nonprofit world. The need to further the empirical research base for the learning organization is essential as we continue to experience a watershed of change and see the concurrent stream of articles and books for improving the learning of organizations. With the rapidity of change, the need for organizational flexibility, and the demands for new and emergent organizational forms, the very survival of many organizations—private, public, non-profit, business and education—depends on the ability of organizations to challenge their own assumptions, diagnose, and transform themselves as they experience and anticipate the changes in the world around them. From his research with a variety of organizations, Fullan (2001) defined the role of leadership in a culture of change. He asserted that leadership must attend equally to establishing moral purpose, understanding change, building relationships, developing coherence, and creating and sharing knowledge in order to generate and maintain commitment among members that leads to positive outcomes and effective organizations. Yet, as Leithwood, Jantzi, and Steinbach (1998) and Ellinger, Watkins, and Bostram (1999) noted, little literature has focused on how leaders actually facilitate learning in a learning organization.

The Context of Higher Education

Within the realm of higher education, many of the same pressures and the surrounding environment are calling for change and learning. Newman and Scurry (2002) noted how public higher education institutions have seen their public mission erode and state allocations slashed. As a result, they have enacted a variety of cost-cutting and revenue enhancing measures. Forest (2002) called for colleges and universities to develop organizational learning goals and measures in response to the challenges of today's competitive higher education environment. He asserted, "Colleges and universities can and must grow smarter. In the same sense that we apply ourselves to instilling intellectual curiosity among students, we must encourage and reward learning at the organizational level" (p. 31). He advocated that universities instill a "culture of intellectual curiosity" throughout the organization versus simply assigning the organizational learning function to an existing office of institutional planning. Finally he noted the importance of organizations documenting their learning processes and rewarding their members for demonstrating collective organizational learning. Boyce (2003) also asserted that the research clearly deems organizational learning as essential to achieving and sustaining change in higher education, pointing out that innovation most often comes from the fringes.

The Land Grant University and the Cooperative Extension Service

Within public higher education, and more specifically as part of the land grant universities in each state and territory within the United States, exists the organization known as the cooperative extension service. This organization is of special interest as its

mission is one of serving the larger society with relevant education that extends beyond the normal domain of university education.

History of the Cooperative Extension Service. The history of the land grant university and cooperative extension service is rooted in changes that occurred in the 19th and early 20th Centuries related to the closing of the land frontier, the distance of agriculture producing areas from markets, the increasing crop specialization and growing agricultural credit needs, the need for a reasonably priced and abundant supply of food, and the changing United States culture (Kelsey & Hearne, 1955). The history includes the establishment of the system of land grant colleges by the 1862 Morrill Act, supported by Abraham Lincoln's concern for the education for the common person. The 1862 Act provided grants of public land (hence the name "land grant") to states for the establishment and maintenance of at least one college per state for the purpose of teaching agriculture, mechanical arts, military arts, and other subjects as deemed appropriate by state legislatures in order to promote liberal and practical education of the masses. This was followed by the Second Morrill Act of 1890 which provided federal funding and established additional land grant institutions at the historically Black colleges throughout the South. The 1862 institutions and 1890 institutions operated as separate but equal until the decision was handed down by the U.S. Supreme Court in *Brown vs. Roe* in 1954. The Smith-Lever Act of 1914, amended in 1953, created the foundation upon which the cooperative extension service has been built. This act provided for practical education of citizens through "extension" of the learning and research advanced by the land grant institutions in cooperation with the United States Department of Agriculture, the states, and local government. Combined with the Hatch

Act of 1887 that created the Experiment Stations to foster research at each land grant university, there emerged the tripartite mission of the land grant university still recognized today as teaching, research, and extension; and the expectation that each informs the other (USDA, 2005a). In each state, the land grant university hired “agents” to work at the local level, assigned faculty on the campus to serve as state agents and specialists to support the work of local agents, and integrated the research conducted on the campuses through the establishment of agricultural experiment stations as a means to demonstrate best practices and conduct relevant research for agriculture. A unique feature of the extension system was the funding of county “agents” by local, state and federal funds and the campus-based extension faculty by state and federal funds.

Over the years, the original Smith-Lever Act which established extension has been amended and expanded. More recently the Equity in Education Land-Grant Status Act of 1994 (USDA, 2005b) established and funded Tribal Colleges land grant institutions to serve primarily Native Americans. Funding has been extended to institutions serving Hispanics and natives in Hawaii. The USDA website states:

[L]and-grant universities also have a Federal Government-mandated extension (outreach) responsibility. This means they are directed by law to offer to the public noncredit, tax-supported educational programs and information based on the results of university research.

The wide-ranging CSREES land-grant partnership includes:

- * More than 130 colleges of agriculture
- * 59 agricultural experiment stations
- * 57 cooperative extension services
- * 63 schools of forestry
- * Tuskegee University, West Virginia State College, and the other 16 historically black colleges and universities
- * 27 colleges of veterinary medicine
- * 42 schools and colleges of family and consumer sciences
- * 32 Native American land-grant institutions

- * 17 Alaskan native-serving and Hawaiian native-serving institutions
- * More than 160 Hispanic-serving institutions (USDA, 2005c)

Despite all of the changes since the inception of the land grant university and cooperative extension service, “What has not changed is extension’s essential nature as a non-formal educational resource for the development of individuals, families and communities in a democratic society” (*Working With Our Publics*, in St. Clair, n.d., ¶ 6).

Challenges for the Land Grant University and Cooperative Extension Service Today

The national strategic document prepared for the Extension Committee on Policy in 1995 noted significant challenges facing extension including the role of extension faculty as an educator versus information provider, the tensions between rural and urban audience needs, the growing array of needs beyond agriculture, the tension between definition by the communities served versus the university’s research base, the need for documenting outcomes and localizing decision making, the need to broaden affiliations beyond agricultural colleges, and the disparity between the different land grant institutions created by historical funding differences. Since that time, society has continued to change in ways that oblige extension to diversify its staff and programs. Public resources have continued to shrink. Communication technologies have provided greater access and increased competition. The lack of trust between local, state, and national levels has continued to erode. These urgent challenges were identified already in 1995.

Not surprisingly, the Kellogg Commission on the Future of State and Land-Grant Universities (1999) argued that public universities had lost their sense of responsiveness to the public and that the university’s engagement with the public must go beyond

extension, conventional outreach, and most conceptions of public service. McDowell (2001), as well as Powers and Pettersen (2001), noted the critical crossroads at which cooperative extension stands and its need to become truly community-based, engage in collaborative learning with constituents, and respond to changes in society in order to remain relevant to society today.

Consequently, the Extension Committee on Policy's (ECOP) *Vision for the 21st Century* highlighted the challenges for growing and thriving with extension's mission "to enable people to improve their lives and communities through learning partnerships that put knowledge to work" (University of Illinois, 2002, p. 4). ECOP's call for radical changes in the way extension services conceive themselves and conduct the business of learning reflects Garvin's (2000) observation that the vitality, flexibility, creativity, and capacity of mature organizations to meet challenges diminish unless they are able to learn.

In her 2003 National Ruby Award Lecture, the Dean and Director of Oregon State University Extension Service, Lyla Houghlum said, "We have to be willing to change. No, we have to enjoy change—and be ready to change again and again" (§ 28). Her comments suggested that extension leaders today must be skilled at working in a constantly changing environment. Citing McDowell's (2001) work, she also noted the challenge to extension services as organizations "to be relevant—to be true to the social contract that we in Land Grant Universities have with the people...to evolve as the needs of the people evolve" (§ 29). Houghlum concluded that a great deal of work is needed to renew and fulfill this social contract—to learn, un-learn, and re-learn.

The changing nature of the federal budget, state budget limitations, the need to be responsive and proactive in a rapidly changing and increasingly complex environment with a widening diversity of constituents, and the increasing competition from other education organizations worldwide demand that a cooperative extension service be able to learn as an organization. As Hock (1999) pointed out, cooperative extension by its nature has significant “chaordic” features (by nature of its local organization and the degree of autonomy that occurs at that level while in partnership with state and national entities) that could enable it to recreate itself as an organization for the future.

Little research has looked specifically at cooperative extension and explored the factors contributing to the development of a learning organization within extension. Cooperative extension, by nature of its complexity and dispersion across disciplines and geographic locations within a state, must necessarily rely on its middle managers or leaders to ensure its educational mission is attained. Likewise, little research has been done to explore the applicability of research conducted within the business world regarding the role of mid-level leaders in promoting organizational learning within higher education, and specifically, within the cooperative extension service.

Purpose of the Research

The purpose of this research was to explore the nature of organizational learning and the role of mid-level leaders in fostering organizational learning within the extension service of a Midwestern land grant university designated as doctoral/research university-extensive. This setting and selection of organization provided a research context within both the Western culture and a higher educational institution. As Hanson (2001) and Stewart (2001) argued, organizational learning is unique to the organization and its

culture. Therefore, we would expect organizational learning in the cultural context of cooperative extension to be different than in businesses, organizations, and other educational institutions.

Research Questions

The primary question which this qualitative study addressed was: What role do middle leaders play in fostering organizational learning in the extension service of this Midwestern land grant university? As a program director in this organization, I was aware of efforts initiated by top leadership toward becoming a learning organization and had observed and reflected on organizational learning in subunits of the organization prior to conduct of the study. Given the literature reviewed, the extension service could be viewed as existing on a continuum of organizational learning. To address this question regarding the role of mid-level leaders in fostering organizational learning on this continuum, the following research questions were posed:

1. What is the nature of the organizational learning occurring in Extension as perceived by middle leaders (regional directors and program directors), regional and state faculty, regional extension council members, and top leadership?
2. What are middle leaders (regional directors and program directors) doing that fosters or inhibits organizational learning in Extension, as perceived by themselves, regional and state faculty, regional extension council members, and top leadership?

Method Used to Address the Research Questions

This investigation was conducted as an embedded naturalistic case study (Patton, 2002; Yin, 2003) of the selected state's cooperative extension service. This organization is situated in a state where the geographic, political, and demographic diversity are often considered representative of the country.

The data were collected primarily through individual and focus group interviews and corroborated through participant reflections and a review of organizational artifacts. The multiple category double layer design, based on Krueger and Casey (2000), consisted of two phases. The first phase involved individual interviews with top leaders and focus group interviews with those who serve as middle leaders—regional directors (RDs) and program directors (PDs). The second phase involved focus group interviews with selected regional and state faculty and selected extension council members.

Data collection and preliminary analysis were conducted simultaneously in order to shape the focus and direction of interviews in phase two of the study. The taped interviews were transcribed and coded using open coding and start codes based on the theoretical constructs of organizational knowledge creation. Patterns and themes were reviewed in relationship to the research questions in order to develop explanatory concepts and infer specific processes facilitating organizational learning. The findings were compared with organizational knowledge creation processes and the literature. Triangulation of data, peer coding, presentation of data for member checks, and an audit trail were means used to ensure credibility, consistency, and trustworthiness.

Limitations of the Study

As in any qualitative study, the conclusions from this study cannot be generalized to the larger population of cooperative extension services or to higher education. One limitation, therefore, is that this study has focused only on one specific cooperative extension service in the Midwest. As the organization and culture of universities can vary, so also can vary the organization and culture of cooperative extension services within respective land grant universities.

The description of the organization and the activities of the leaders have been presented so that others can determine the extent and appropriateness of transferability to another context. The descriptions have been developed to provide insight to other organizations—including cooperative extension services in other states and countries as well as higher education institutions—that illuminate the situation, culture, demands for change, and roles middle leaders are playing in the organization which was studied. The comparison to findings of the researchers in the business context and other cultural contexts also provides clues to the transferability of the findings of this study as well as that of previous studies.

While any such study will represent the specific views and understandings of participants at a specific point in time, this study may be limited also by the unique organizational context in which the study was conducted. Specifically, the cooperative extension service was within the first 12 months of transition in organizational structure and leadership after consolidation of the state administrative structure for this cooperative extension service. While this particular time within the organization provided an

opportunity to uncover learning, the possibility that participants' perceptions were colored by the transition and associated politics must be recognized.

Finally, my own status as an insider, an actual middle leader within the organization studied, served as both an asset and potential limitation. As a member, I understood the nuances of the organization and its culture. However, my own experiences and relationships also potentially affected the level of participation as well as interpretation of data. While the study was designed to limit the affect of researcher bias, the experiences of the researcher can not be discounted as impacting a study of this nature. Therefore a discussion of my assumptions upon engaging the study are important for determining transferability of this study to other contexts and organizational settings.

Assumptions

I approached the study with a strong belief about the importance of the extension service operating as a learning organization. I engaged in the study as a program director (middle leader) with experience as a state specialist and nearly 20 years of work experience in the organization. My bias as a middle leader had the potential to complicate the process of viewing the wider organizational picture from the perception of regional and state specialists, extension council members, and top leadership.

As I embarked on this study, I assumed that this extension service reflected some aspects of a learning organization in some contexts but not in others. I also assumed that middle leaders were fostering organizational learning, wherever the organization fit on the hypothetical continuum of operating as a learning organization. Finally, I assumed that becoming a learning organization was desired by top leadership.

Definition of Terms

Cooperative extension service—For the purposes of this study, the entity within the land grant university that provides and extends the research-base and problem solving resources of the university through education and outreach to the citizens of the state. The cooperative extension service—known as the Cooperative Extension System—is a formal partnership between federal funds (administered by the United States Department of Agriculture), state appropriations, and local funds (county and sometimes city). For the purposes of this study, the term Extension will be used to reflect the cooperative extension service operated within an 1862 land grant university of one state.

County Program Director (CPD)—Regional specialists who take on the additional duty of coordinating local relationships with the county council, local government, and supervising office staff.

Culture—Patterns that consist of “in-depth, subjective interpretations of a wide range of cultural manifestations” (Martin, 2002, p. 120). These patterns are reflected in the stories people tell to explain how things are done in an organization; the values shared or not shared; the physical and virtual arrangement of the organization and its space; the working atmosphere; official policies, relationship structures; and so on. Culture includes the perspective of what people share across the organization or only in subgroups as well as the areas of ambiguity and conflict within the organization.

Environment—The internal and external surroundings in which an organization exists. For the purpose of this study, environment will include the local and state context as well as the larger national context in which the state cooperative extension service operates.

Explicit knowledge—Knowledge that can be easily expressed to others through words and/or numbers (Nonaka & Takeuchi, 1995).

Extension—For the purposes of this study, the specific state cooperative extension organization that is the focus of this study.

Extension council—County extension councils are state statutory bodies whose members are elected and appointed to oversee local programming, allocate and handle county funds appropriated to local extension offices, and provide funding for local secretarial support staff. In the extension service studied, regional council members serve on a representational basis from each local council in the region and select members to represent the region for the state extension council.

Knowledge—The understanding we have of the world—the individual and collective “know-how” and truth constructed and reconstructed in context from interaction with others. Knowledge comprises what we know, how we know it, how we use and share what we know to create new understanding.

Land grant university—Publicly funded universities established by the United States Congress, which receive federal funding from the United States Department of Agriculture that is matched by state and local funding to conduct research, education, and outreach that improve the lives of the citizens of the state.

Leadership—While leadership is usually defined as the function which articulates, communicates, and provides overall direction for the organization, this study will include a broader understanding that recognizes the function of leadership can surface and be exercised from anywhere within the organization. In this study, distinguishing between top leadership and middle leadership is important. Most

discussions of leadership and organizational learning limit the leadership to top leaders. In this study, top leadership shall refer to the director, associate director and those with statewide leadership roles that span both geographic regions and extension program areas. Middle or mid-level leaders shall refer to program directors and regional directors.

Learning—the creation of new knowledge and/or understanding acquired by such means as experience, new combinations of prior knowledge, interaction and reflection, dialogue and discussion, observation, practice. Learning often necessarily involves the reconstruction of knowledge (unlearning).

Learning organization—A metaphor from which we can draw problems and question what we mean by learning in an organizational context (Morgan, 1997; Stewart, 2001). For the purpose of this study, the learning organization is used synonymously with organizational learning; although the use of the two terms within the literature will be discussed .

Line faculty—Those faculty who work as regional and state specialists in developing and delivering educational programming as part of the cooperative extension service. These positions are comparable to Nonaka and Takeuchi's (1995) description of line workers who, in this case, are accountable to the RDs and/or PDs (middle leaders).

Micro-community—Five to seven people who comprise an organizational team that works together and creates organizational knowledge. This team is characterized by a dense network of relationships and frequent interaction (Von Krogh, Ichijo, Nonaka, 2000). Wenger (1998) calls such groups “communities of practice,” defining them as the entities for organizational learning and emphasizing participation and the sense of community among a set of professionals with a certain degree of commonality to their

discipline. Engestrom (in Eraut, 2002), however, focuses on the community of practice from the perspective of practice or the activity structure, i.e., the members are focused on the same objectives. For the purpose of this study, the term micro-community will be used to embrace both concepts, recognizing either has the potential to contribute to organizational learning.

Middle leaders—The program directors and regional directors in this state's cooperative extension service, which are middle leaders by virtue of their positions and frequent role of providing leadership and management for new and innovative or cross-disciplinary projects.

Organizational learning—The creation, dissemination, and utilization of new knowledge within the organization (Nonaka & Takeuchi, 1995). The learning entity is the collective versus the individual, and the essence of the learning is participation versus acquisition of information. A social approach to organizational learning reflects that knowledge is located in the collective organization and is situational, or specific to the context of the organization (Örthenblad, 2001).

Organizational structure—The configuration and pattern of expectations within an organization that are used to accomplish its work.

Program director (PD)—Within the cooperative extension service studied, this position is responsible for content specific program development and delivery at the state level and across the state. Dependent upon the program, the PD sometimes simultaneously holds the official title of assistant or associate dean for extension in a college. Both regional and state faculty report to respective PDs. Also some of the PDs hold responsibility for overseeing programs conducted by state faculty housed on various

campuses of the multi-campus land grant university within which this cooperative extension service is situated.

Regional director (RD)— Within the cooperative extension service studied, this position is responsible for administration of a geographic region of the state and day-to-day operations of cooperative extension for all programs conducted in the region. Typical of a matrix organization (Bolman & Deal, 2003; Morgan, 1997), regional specialists report both to RDs and to PDs.

State Extension Council—The State Extension Council serves as the state association of county extension councils. The 12-member council comprises a representative from each of the extension service's regions plus four appointed persons to represent the four largest metropolitan areas.

Tacit knowledge—Internal beliefs, values, ideals, emotions, and knowledge of how to do something that are often difficult to communicate to others.

Significance of the Study

State cooperative extension services are unique entities that represent some of the critical structural qualities of learning organizations, but are often bounded by politics and a strong cultural tradition. A partnership between federal, state, and local government has supported cooperative extension since its inception over 150 years ago. Changes have occurred in the culture, environment, leadership and politics of cooperative extension services in the past ten years. The attention given to collaborative learning with constituents, community-based programming, and documentation of outcomes (McDowell, 2001; Powers & Pettersen, 2001) are indicators of a shift toward a learning organization. Because this is an organization that is older and steeped in tradition,

cooperative extension services' long term survival, growth, and organizational effectiveness comprise the ability to meet future challenges. The organization's success will be critically linked to organizational learning, flexibility, creativity, and capacity to meet future challenges.

Summary and Overview of the Remaining Chapters

The purpose of this study was to explore the nature of organizational learning and the role of middle leaders in fostering organizational learning within the cooperative extension service of a Midwestern land grant university. The nature of organizational learning and role of leadership, especially top leadership, has been studied primarily in the business world, while limited study has been conducted regarding mid-level leaders' roles in fostering organizational learning. Therefore, the intent of this study was to focus on organizational learning within the context of the cooperative extension organization and its culture. In this context, the study included the opportunity to look at how RDs and PDs in the extension service fostered organizational learning.

In the remaining chapters, the details of the study and its outcomes will be presented. In Chapter Two, a comprehensive review and synthesis of the relevant literature on organizational learning, the learning organization, and the role of middle leaders in fostering organizational learning will be presented. Chapter Three includes a description of the research design; the procedures used to collect and analyze the data; and the steps taken to assure the credibility, consistency, and trustworthiness of the study, and the study's limitations. In Chapter Four, the findings from the study are related in terms of the nature of learning occurring in the cooperative extension service, how RDs and PDs are fostering organizational learning in the organization, and any differences in

their roles—all from the perspective of the various groups of participants. The presentation of findings will include rich descriptions as well as other findings that surface which impact the understanding of the role of these middle leaders in fostering organizational learning. Chapter Five will feature a summary of the study and a presentation of conclusions and implications for this extension service, cooperative extension, and higher education organizations and their leaders as they seek to foster organizational learning. Finally, the recommendations for future research will be discussed in light of the findings and conclusions from this study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Background

In this chapter, I will explore the terminology that has arisen around the concept of organizational learning and the learning organization, the underpinning theoretical foundations for the terminology, and the difference between knowledge management and organizational learning. Also to be explored are the key descriptions put forward by researchers to describe the characteristics of learning organizations, key learning organization measures which have been developed, and the significant studies which have contributed to the theoretical understanding of the organizational learning process. Specific attention will be given to the discussion of the role of culture and communication and the design of organizations in regard to organizational learning. The literature with regard to the role of leadership, and specifically the role of middle management, will be explored. Finally, several notable studies that have focused on barriers to organizational learning will be discussed. When these aspects are taken into account together, the case for undertaking this research is presented.

Organizational Learning versus the Learning Organization

The concept of organizational learning was heightened with Argyris and Schon's (1978) seminal work on single and double loop learning. However since the emergence of the concept of a learning organization that began in the late 1980's, the concepts of organizational learning and learning organization have been used interchangeably by both practitioners and researchers. Gozdz, (2000), Lipshitz and Popper (2000), and Sun and Scott (2003) noted the separation which has existed between practitioners and theorists

and the fragmentation which has been spawned by the multi-disciplinary and holistic nature of the learning organization. First, these authors asserted that practitioners tend to focus on the learning organization and cited the explosion of books targeted to the managers, leaders, and the human resource professionals, many of which are prescriptive and anecdotal, yet informed by social and cognitive psychology. Second, organizational learning theorists, researchers, and practitioners are in fact diverse and informed by social theory, organizational development and management science, psychology, conflict theory, cybernetics, systems and biological sciences theories (including chaos theory), management and learning theory—to name just a few of the key influences. The breadth of perspectives reminds me of the story of the three blind men who try to describe the elephant on the basis of the one part that they can touch. Like the elephant, organizational learning and the learning organization are complex and require a holistic and systems perspective. Therefore, while the diverse disciplinary approaches create complexity, they also contribute to our collective understanding of organizational learning.

In the midst of these perspectives, some authors have drawn distinctions between the concept of the learning organization and organizational learning, but these distinctions have not been consistent (Örtenblad, 2001; Stewart, 2001). As Stewart noted, “There is little consensus on what a learning organization might look like, what organizational learning is, how organizations learn (if they learn at all) and what if any is the relationship between learning organizations, individual learning and organizational learning” (p. 144). With Stewart’s caveat in mind, a review of the key distinctions that have been drawn and the emerging typology, nonetheless, provides insight and understanding of the concepts.

Stewart (2001) indicated that a human resources management approach to organizational learning and the learning organization tends to emphasize, often in a prescriptive manner, the steps to creating a learning organization or “describing already formed ones as blueprints for managers to follow” (p. 143). Alternatively, other theoretical approaches focus the organizational learning and the creating of a learning organization on building organizational capacity. Örtenblad (2001) asserted that the “learning organization is a form of organization while organizational learning is activity or processes (of learning) in organizations, and that the learning organization needs effort while organizational learning exists without any efforts” (p. 126). These distinctions however are not empirical, and Örtenblad noted that authors tend to frame the learning organization either descriptively, or more often, normatively. He synthesized the various approaches and developed a useful means of viewing these concepts on the basis of who is learning and where the knowledge is located. The three classifications developed include: (a) traditional organizational learning, (b) the learning organization, and (c) the new organizational learning.

According to Örtenblad (2001), traditional or “old organizational learning” has focused nearly exclusively on cognitive approaches, which were typified most notably by Argyris and Schon (1978, 1996), and Argyris (1999). This traditional approach is centered on individual learning in the organization as well as organizations learning in ways similar to an individual. Theorists who adhere to this approach have espoused knowledge to be embodied or stored within the minds and experiences of individuals. Sun and Scott (2003) asserted that this stream of thought deals with how individuals learn within an organization that may result in a change of behavior.

The Learning Organization

Örtenblad (2001) noted that during the 1990s, organizational learning literature embraced the “learning organization.” Most typical of this approach is Senge (1990) who asserted that individuals learn, but the organizational knowledge is stored both internal and external to the individual. Senge noted that the organization is connected to the individual through shared mental models and work in teams, which then guide the individual learning. Senge’s (1990) seminal and often noted work asserted there are five key disciplines essential to the creation and maintenance of a learning organization: (a) personal mastery of “deep learning” (which appears to be defined similar to Argyris and Schön’s [1978] double loop learning) by individuals in the organization, (b) development of new mental models or paradigms, (c) development of shared vision, (d) the incorporation of team learning, and (e) the pervasive integration of systems theory (consistent with Oshrey, 1995).

Garvin (2000) and Yukl (2002), as two other examples, further reported that a learning organization engages in the following five activities: (a) systematic problem solving, (b) experimentation with new approaches, (c) learning from its own experiences and history, (d) learning from other’s experiences and best practices, and (e) quick, efficient knowledge transfer throughout the organization. Most significant to the concept of the learning organization, according to Sun and Scott (2003) is the focus on learning occurring to move the organization to a desired state, which necessitates transfer of learning from individual to collective to organizational and inter-organizational.

Dimensions of Organizational Learning

Marsick and Watkins (in Pace, 2002) explored the dimensions of the learning organization and noted:

A learning organization must capture, share, and use knowledge so its members can work together to change the way the organization responds to challenges. People must question the old, socially constructed and maintained ways of thinking. Learning must take place and be supported in teams and larger groups, where individuals can mutually create new knowledge. And the process must be continuous because becoming a learning organization is a never-ending journey. (p. 458)

Therefore, they argued a learning organization “(a) creates continuous learning opportunities, (b) promotes dialogue and inquiry, (c) promotes collaboration and team learning, (d) empowers people to evolve a collective vision, (e) establishes systems to capture and share learning, (f) connects the organization to its environment, and (g) provides strategic leadership for learning” (in Pace, p. 461). Pace argued Marsick and Watkins’ work revealed more about the organization than the learning process.

Marsick and Watkins’ work on the dimensions of a learning organization appears to be based in a rationalist and behaviorist approach, which leaves insufficient room to consider culture, politics and context. Huber (in Pace, 2002) cautioned that “too much of a managerial focus has led to an instrumental perspective in which organizational effectiveness must be enhanced in order to claim that organizational learning has occurred” (p. 462). This behaviorist approach which indicates that organizational learning must be measurable has been countered by Huber with the claim that “an organization is learning if any of its units acquires knowledge that it recognizes as potentially useful to the organization” (p. 462). In response, Pace (2002) reported that Huber created a

framework based on Levitt and March's (1988) concept of learning as "an encoding of inferences from history into routines that guide behavior" (Pace, p. 459), including:

forms, rules, procedures, conventions, strategies, and technologies around which organizations are constructed and through which they operate. They also include the structure of beliefs, frameworks, paradigms, codes, cultures, and knowledge that buttress, elaborate and contradict the formal routines. Routines are independent of the individual actors who execute them and are capable of surviving considerable turnover in individual actors. (Huber in Pace, p.460)

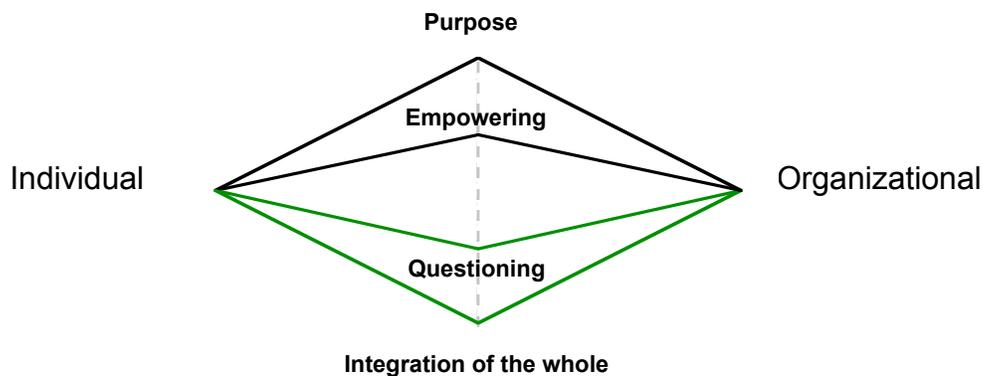
Organizational Learning Profile

Consistent with Huber's work, Dorai, McMurray and Pace (Pace, 2002) assessed the basic elements of organizational learning. Their work focused primarily on the learning process in an organization, giving particular attention to respondents' perceptions of implementation of learning elements. These learning elements were based on the following four factors: information-sharing patterns, the inquiry climate, learning practices of individuals, and the achievement mindset of individuals in the organization. Dorai, McMurray, and Pace also framed organizational learning on the basis of a rationalist and individual learning framework that insufficiently addresses a constructivist and situational approach to learning.

Organizational Learning Diamond

Moilanen (2001) reviewed instruments which measured organizational learning and concluded, first, that these instruments generally were devoid of scientific rigor and connections to theories or the needs of organizations being measured and have tended to be products of organizational consultants focused either on strategic, holistic, or individual viewpoints in assessing the organization. Second, instrument developers have failed to document the process used for providing feedback; and therefore, the benefit to

managers for engaging in the diagnosis is unknown. Third, tools are limited either by their focus on determining whether an organization is learning or not, by lack of rigorous statistical testing, or by lack of holistic assessment (i.e., the instrument stresses structure, strategic processes, etc.). As a result, Moilanen developed and empirically tested the Learning Organization Diamond which acknowledged learning at the individual and organizational levels and focused within each level on the following five aspects: (a) uniting the elements of form for the whole organization, (b) finding purpose, (c) questioning, (d) empowering and (e) evaluating. Moilanen's diamond conceptualization is depicted in Figure 2.1.



Note. Based on Diagnostic tools for learning organizations by R. Moilanen, 2001, *The Learning Organization* 8(1), 6-20. Copyright © 2001 by MCB University Press, Bradford, West Yorkshire.

Figure 2.1. Moilanen's (2002) learning organization diamond.

Moilanen's (2001) saw the learning organization as:

a consciously managed organization with learning as a vital component in its values, visions and goals, as well as in its everyday operations and their assessment. The learning organization eliminates structural obstacles of learning, creates enabling structures and takes care of assessing its learning and development. It invests in leadership to assist individuals in finding the purpose, in eliminating personal obstacles and in facilitating structures for personal learning and getting feedback and benefits from learning outcomes. (p. 6)

However, he highlighted the weaknesses of his model and others for providing to managers a complete picture of organizational learning, “Describing, defining, making synthesis and measuring are all needed in learning organization development, but none of them alone will give enough information for managers in their work” (p. 15). He did not address the need to look at the context of organizational learning — whether it be in business, the public sector, education, or cooperative extension. These approaches, while focused on quantitative measure, operated primarily on the premise that one can normalize the learning organization, which ignores the context-specific nature of organizational learning.

New Organizational Learning

Also in the mid 1990s, the “new organizational learning” emerged as a cultural or social approach to learning, which is richer than the traditionally defined organizational learning (Örtenblad, 2001). The social approach distinguishes organizational learning in two specific ways. First, the learning entity is the collective versus the individual, and the essence of the learning is participation versus acquisition of information. The work of Bruffee (1997), Hanson (2001), Nonaka and Takeuchi (1995), Stewart (2001), and Wenger (1998) exemplified this social approach to new organizational learning.

Second, Örtenblad (2001) argued that a social approach to organizational learning reflects that knowledge is located differently (i.e., knowledge is more than what is embodied in individuals) and is situational. Drawing on Blackler, he indicated the following additional locations of knowledge. Encultured knowledge exists between people. Embedded knowledge is manifest in routines. Encoded knowledge is found in symbols and documents such as mission and vision statements. In addition, the

knowledge as “knowing” is situational, and situational knowledge cannot be stored as opposed to more traditional and cognitive approaches to organizational learning. This context specific nature of knowledge or knowing means that stored knowledge will have another meaning in another situation. Learning that is context specific is also consistent with Bruffee (1997), Nonaka and Takeuchi (1995), and Stewart (2001). Bruffee argued that learning is social and occurs through renegotiation of relationships and integration into new learning communities. Hanson (2001) indicated that organizational memory includes soft knowledge embedded in people and transferred through imitation, socialization, training, and professionalization. Nonaka and Takeuchi (1995, 2004) also noted that a key aspect of learning is the sharing of social or tacit aspects of culture and knowing.

Stewart’s (2001) tracing of the concept of the learning organization also highlighted the varied approaches to defining organizational learning and the learning organization. She noted the evolution of terms such as single/double loop, triple loop, adaptive, generative, and transformative learning—all of which are focused primarily on cognitive learning. Like Morgan (1997), she suggested we view the learning organization as a metaphor from which we can draw analogies and question what we mean by learning in an organizational context. However, she cautioned that learning can be seen as the end rather than the means for a learning organization, leading to a tendency to devise measurements for determining whether an organization has reached a reified ideal state. She argued for the use of narratives and stories as a means for developing a richer understanding of what the learning organization means in any specific context. (She also noted that these narratives must take into account the relationships of power within the

organization as one aspect of the context.) Latent within the stories and narratives are the stores of an organization's intangible and tacit knowledge. The sharing and listening of narrative then leads to action as individuals "intently act in new ways...or developing new ideas" (p. 148). Stewart's assertion that organizational learning is a social phenomenon actively constructed and cast in the context of an organization's power context and Gozdz's (2000) transpersonal learning are all consistent with the concept of organizational learning as situational and context specific (Nonaka & Takeuchi, 1995, 2004; Örténblad, 2001, 2004; Von Krogh et al., 2000).

The Learning Square

Lindley and Wheeler (2001) recognized the limitations of superficially diagnosing "the organization to see if it is in a fit state to foster learning and then to suggest managerial policies that can improve the propensity for learning" (p. 115). They suggested the need for "practicable models that can inform competitive strategies" (p. 115) and developed the "learning square" to depict four key organizational factors that foster learning and assist in framing strategic decision making in a learning context. They proposed that organizations could improve effectiveness by reviewing each of the factors and initiating strategies on the basis of an integrated view of the four. The four inter-linked factors in the model comprise the corners of the square and include multi-dimensional goals, continual learning, shared vision, and using tacit knowledge. Multi-dimensional goals is based on the proposition that organizations set goals in terms of the following three dimensions: (a) externally in relation to competition and benchmarks, (b) internally in relation to core competencies, and (c) chronologically in relation to the organization's history. Continual learning reflects the organization's competitive

advantage gained from continual improvements and adaptations to environmental change. Shared vision is premised on Senge's (1990) concept that an understanding of the corporate aims created collaboratively with shareholders and shared by organizational members increases the effectiveness of organizational endeavors. Finally, the use of tacit knowledge—"the personal, unarticulated knowledge of its [the organization's] individual members" (p. 116) gives an organization competitive advantage in dealing with change and implies the organization gives its members time to learn. The center of the learning square represents zero ratings on all four factors and the outer corners of the square represent high scores for each factor.

Lindley and Wheeler (2001) used the learning square to conduct a case study analysis of four critical incidents over six years related to information systems in a commodity producing firm. They concluded that all four factors were influential in the learning, allowed for examining the complexity of the organizational learning, and contributed to the single dimension cost-cutting strategy adopted by the firm. As a result, they suggested questions to measure performance in the learning square and the need for more study to determine the relationships between the factors.

Like Lehr and Rice (2002), Örténblad (2001) and Stewart (2001), Lindley and Wheeler's (2001) work recognized that learning is situational and specific to the time, cultures and nature of the organization. Their work also acknowledged a learning process which draws upon earlier work by Nonaka and Takeuchi (1995).

The Organizational Knowledge Creation Process

Nonaka and Takeuchi's (1995) in-depth research of Japanese companies provided insight for the knowledge creation process that occurs in business organizations. Most

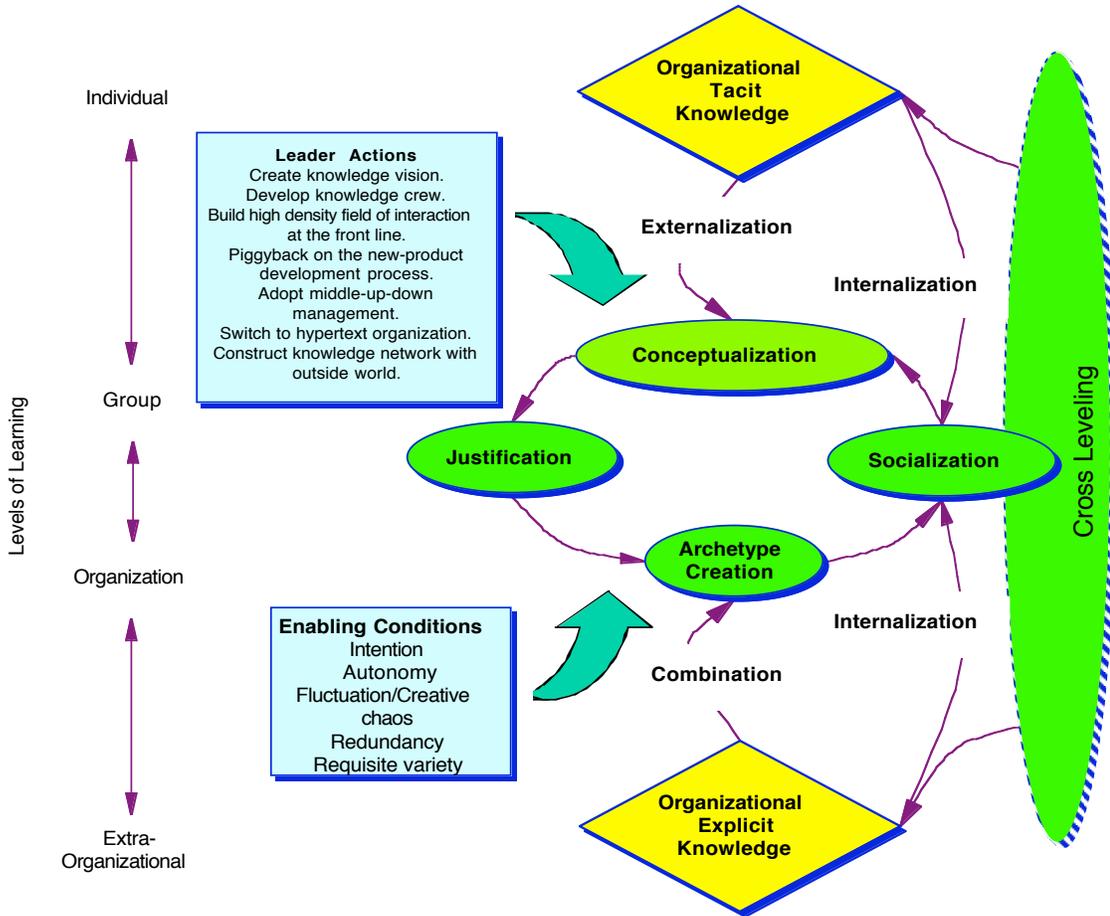
notably, they argued that the organizational learning process is both cognitive and affective, involving and integrating the entire range of human capacities—the brain, the spirit, the heart, and the body. Nonaka and Takeuchi (2004) provided an illuminative discussion of the tacit and explicit nature of knowledge in relation to organizational learning. First in describing tacit knowledge, they observed its two dimensions. The “technical” dimension “encompasses the kind of informal and hard-to-pin-down skills or crafts often captured in the term ‘know-how’” (p. 4). This kind of knowledge is one that, after years of experience, those possessing it “often have difficulty articulating the technical or scientific principles behind what they know. Highly subjective and personal insights, intuitions, hunches, and inspirations derived from body experience all fit into this dimension” (p. 4). They went on to note:

Tacit knowledge also contains an important ‘cognitive’ dimension. It consists of beliefs, perceptions, ideals, values, emotions, and mental models so ingrained in us that we take them for granted. Though they cannot be articulated very easily, this dimension of tacit knowledge shapes the way we perceive the world around us.

Knowledge is not *either* [original emphasis] explicit or tacit. Knowledge is *both* [original emphasis] explicit and tacit. (p. 4)

Nonaka and Takeuchi’s (1995, 2004) research demonstrated how an organization learns or creates and disseminates knowledge through the systematic cyclical process entailing four aspects: socialization, externalization, combination and internalization (See Figure 2.2). During socialization, tacit and personalized knowledge is shared with others. As the tacit becomes explicit through the externalization phase, shared understanding is developed and conceptual knowledge is created. Justification is the process of testing and refining concepts. Combination of explicit concepts and knowledge leads to the creation of prototypes and new products. Internalization occurs when knowledge of the

organization becomes the tacit knowledge of individuals in the organization and then also becomes the base for the next spiral into socialization. Cross-leveling, or transferring learning to other levels within the organization and internalizing learning into the fabric of the organization, happens when the organization creates a number of learning activities that span across organizational levels.



Note. Based on *The knowledge creating company: How Japanese companies create the dynamics of innovation* by I. Nonaka and H. Takeuchi, 1995. Copyright © 1995 by Oxford University Press, New York.

Figure 2.2. Nonaka and Takeuchi's (1995) knowledge creation process.

Hanson (2001), focused on organizational learning in the educational arena from an institutional theory perspective. He pointed out that organizational learning is

primarily a cognitive process that begins with knowledge acquisition by copying from similar organizations, learning from personal experience, observing, grafting onto the organization the carriers of new knowledge, and carrying on environmental scanning. Like Nonaka and Takeuchi, Hanson recognized the importance of the process of committing organizational learning to organizational memory and provided insight into how several types of organizational myopia or “short-sightedness” can impede the process. He also cautioned that organizational learning does not necessarily imply observable change. Finally through the lens of institutional theory, Hanson asserted that smarter educational organizations are those that effectively develop hard and soft organizational knowledge and memory—not unlike Nonaka and Takeuchi’s (1995, 2004) tacit and explicit knowledge—to create and respond to change.

Knowledge Creation Versus Knowledge Management

Equally as important as clarifying terms such as organizational learning and the learning organization is distinguishing between knowledge creation and knowledge management (Von, Krogh, Ichijo, & Nonaka, 2000). Like Collins (2001), Von Krogh et al. (2000) argued knowledge management has often captured the attention of leadership but implies control and over-emphasizes information technology and measurement tools. Sun and Scott (2003) also noted knowledge management approaches focus almost exclusively on explicit knowledge, which we will see later is but one aspect of the knowledge creation process described by Nonaka and Takeuchi (1995). Knowledge creation, as opposed to knowledge management, embodies a set of organizational practices and activities that positively affect knowledge creation. These practices and activities also include facilitating relationships and conversation, include sharing local

knowledge across the organization or beyond geographic and cultural boundaries, and rely on a new sense of emotional knowledge and care in organization (how people care and encourage creativity and playfulness). These characteristics will be discussed in more detail later in relation to the organizational learning process. A distinction between knowledge creation and knowledge management is also critical to understanding the measures that have been developed for learning organizations.

Diagnostic Tools for Learning Organizations

Often organizational measures are developed and analyzed as an indication of organizational learning and a function of knowledge management. Lehr and Rice (2002) looked at organizational learning in exploring how measures are developed and applied within organizations as forms of knowledge management. They proposed that knowledge measures focus on: (a) declarative knowledge (how processes within organizations are categorized), (b) procedural knowledge, and (c) causal knowledge (what is related and implied from analysis of measures). The authors noted the significant contribution of the sharing of tacit knowledge as the creation of “organizational public goods,” or a greater benefit than the sum of individual’s knowledge. They asserted that organizations learn from themselves and others, through the adoption of disciplines, by striking a balance between a system-structural approach and an interpretative approach, and when individual learning is transferred to other members in the organization. In other words, communication processes are central to the learning organization. The role of measures is that of representing explicit “organizational memory.” The measure of double loop learning requires evaluation of the performance of the measures as well as the measurement itself. Implications drawn included: (a) measures need to be contextualized

to the work, (b) novices need access to decontextualized measures while learning what contextual information is useful and how to recontextualize information, and (c) intermediaries may be needed to foster knowledge reuse. In conclusion, measures must be created, used, interpreted, and revised by a community of practice which includes central and peripheral members. Lehr and Rice, in essence, supported Nonaka and Takeuchi's (1995) and Bruffee's (1997) assertions that learning is a social process.

Lehr and Rice (2002) advocated questioning the nature of measures for knowledge that are informative to looking at the nature of learning occurring. They suggested that measures should be classified on the basis of use as follows: (a) for individual learning, (b) in conjunction with metaphor development, (c) as part of organizational routine or to alter routine, (d) to facilitate socialization, to accomplish single-loop or double loop learning, (e) to focus on espoused theories or theories-in-use, (f) to narrow direct learning, (g) to create organizational memory, and (h) to translate individual learning into organizational learning. Other questions focused on the necessary context for application and understanding of the measures and whether use was internal or external. While Lehr and Rice (2002) leaned more toward individual learning in the organization, they bridged the division between the tendency of organizations to focus on knowledge management versus a process of enabling knowledge creation, which Von Krogh et al. (2000) argued is essential.

Several diagnostic tools have been developed to measure organizational learning, primarily in the business world (Moilanen, 2001; Pace, 2002). These tools measure a specific organization's dimensions or behaviors of learning and organizational members' perceptions of the implementation of organizational learning elements or factors. Clearly

the opportunity exists for exploring organizational learning through a qualitative process in the higher education setting as much of the significant research to date has focused on quantitative exploration in the business arena. The exploration of organizational learning in the specific context of higher education and extension therefore also warrants an understanding of culture and how it contributes to organizational learning.

The Role of Culture in Organizational Learning

As Örtenblad (2001) and Stewart (2001) noted, organizational learning, or knowledge creation, occurs in the context of the organization and its surroundings or culture. Schein (1992), noted for his focus on organizational culture, set forward a set of key characteristics of the learning organization's culture that enables the organization to "make its own perpetual diagnosis and manage whatever transformations are needed as the environment changes" (p. 363). Creating a learning culture requires seeding a "learning gene" into the organizational DNA, according to Schein (2004, p. 395) that entails building shared assumptions that value learning as a worthwhile investment and paying attention to internal relationships and changes in the external environment. Key roles for leaders include fostering feedback, reflection, analysis, assimilation of implications, and generation of new responses. Schein (2004) specifically noted the culture that engenders organizational learning must assume that:

- The world can be managed.
- Reality and truth must be pragmatically discerned.
- Human nature is basically good and in any case mutable.
- The best kind of time horizon is somewhere between far and near future.
- The best kinds of units of time are medium length ones.
- Accurate and relevant information must be capable of flowing freely in a fully connected network.
- Diverse but connected units are desirable. (p. 405)

Dhillon's (2001) case study, which was conducted at a multi-campus university, documented the success of a facilitated participatory process for organizational learning and cultural change. The qualitative study focused on a pilot project involving improvement of information for students through development of a strategy for generating and communicating knowledge and learning within the organization. Dhillon concluded the following: (a) that changing the culture in a university is critical to overcoming the challenge of promoting change; (b) that establishing guiding principles are key; (c) that involving staff and students in the research and development promote ownership of the information and knowledge generated and promotes commitment to replace the communications culture; and (d) that skillfully managing and investing in human resources is essential to tapping tacit knowledge to create a knowledge-based organization.

Schein's (1992) and Dhillon's (2001) approaches to culture are very rational and oriented in a Western cultural mindset. Other researchers have drawn upon the non-rational and rational, or Eastern culture. Von Krogh, Ichijo, & Nonaka (2001) explained, "effective knowledge creation depends on an enabling context....a shared space that fosters emerging relationships" (p. 7). The Japanese concept of place is called *ba* and embodies an organizational context that is physical, virtual, mental, or all three. Espousing that all knowledge is embedded in its context and that "the process of knowledge creation requires a necessary context or 'knowledge space'" (p. 7). Von Krogh et al. as well as Cross and Parker (2004) recognized the importance of social relationships that foster cooperative sharing and caring are critical to the *ba* for

organizational learning. What a caring context entails and how leaders enable it will be discussed in detail later.

Martin (2002) described culture from multiple perspectives, defining culture as “consisting of in-depth, subjective interpretations of a wide range of cultural manifestations, both ideational and material” (p. 120). She noted that ideational aspects focus on the culture arising from the organization. She advocated incorporation of three theoretical approaches to understanding the organization’s culture. The integration perspective focuses on consensus and those aspects that have “mutually consistent interpretations; culture is like a solid monolith seen the same way by most people, no matter from which way they view it” (p. 94). The differentiation perspective focuses on inconsistent interpretations of the manifestations of culture, where consensus may often exist within a subculture but not across the organization. She likened subcultures to “islands of clarity in a sea of ambiguity” (p. 94). Finally, the fragmentation perspective highlights neither clearly consistent nor clearly inconsistent cultural manifestations so that ambiguity versus clarity is the key focus. Metaphorically, she expressed the fragmentation perspective as follows:

Imagine that individuals in a culture are each assigned a light bulb. When an issue becomes salient (perhaps because a new policy has been introduced or the environment of the collectivity has changed), some light bulbs will turn on, signaling who is actively involved (both approving and disapproving) in this issue. At the same time, other light bulbs will remain off, signaling that these individuals are indifferent to or unaware of this particular issue. Another issue would turn on a different set of light bulbs. From a distance, patterns of light would appear and disappear in a constant flux, with no pattern repeated twice. (p. 94)

Martin asserted that understanding organizational culture requires incorporation of these multiple perspectives, looking for the nexus of the varied internal and external

environmental influences. Her approach adds a richer understanding about the role of leaders and the environment that affect cultural change (See Figure 2.3).

		Cultural Perspective	
	Integration	Differentiation	Fragmentation
Orientation to consensus	Organization-wide consensus	Subcultural consensus	Lack of consensus
Relation among manifestations	Consistency	Inconsistency	Not clearly consistent or inconsistent
Orientation to ambiguity	Exclude it	Channel it outside subcultures	Acknowledge it
Role of leader	Leader centered	Teams of leaders can have secondary influence	Power diffused among individuals and environment (hegemonic discourses)
Role of environment	Can have some influence but is separate from culture	Environmental influences salient; can be external (jolt) or enacted (nexus approach)	Boundary between environment and organization permeable and in constant flux (nexus approach)
Action implications	Top-down control by leaders, or seek culture-strategy fit, or question normative ability to control culture	Little direct advice to managers or subordinate groups	Individual seen as powerless or as able to contribute intellectual to undermining hegemonic discourses

Note. Adapted from *Organizational culture: Mapping the terrain* by J. Martin, 2002, pp. 95 and 149. Copyright © 2002 by Sage, Thousand Oaks, CA. Adapted by permission of Sage Publications.

Figure 2.3. Complementarity and implications of multiple cultural perspectives.

Martin (2002) also argued that in studying organizations, “The objective of a single case study...is an appreciation of contextually specific knowledge rather than an understanding that emerges from the process of abstraction and generalization across

cases” (p. 41). Her predilection for a contextual strategy for research on organizational culture is underlined by her note that the understanding of cultural perspectives often requires an insider and a subjective approach as participants will subjectively and differently define the culture. Similarly, Tierney (1991) noted the underlying role that culture plays in higher education institutions where:

The same leadership style can easily produce widely divergent results in two ostensibly similar institutions. Likewise, institutions with very similar missions and curricula can perform quite differently because of the way their identities are communicated to internal and external constituents and because of the varying perceptions these groups may hold.” (p. 126-127)

Tierney identified the cultural framework of the higher educational institution to comprise the environment, mission, socialization, information, strategy, and leadership.

While Stewart (2001) noted the delineation of differences on the basis of structure and learning in the organization versus learning by the organization, Lipshitz and Popper (2000) demonstrated the utility of a structural and cultural approach to understanding the connection between the learning in organizations by individual members and learning by the organization. Their case study focused on the connection between individual learning in organizations and learning by an organization from cultural and structural viewpoints. The study explored: (a) the organizational learning mechanisms that existed in two different wards of a teaching hospital; (b) the extent to which the organizational culture in each ward conformed to defined values for a learning organization; and (c) how the differences in the organizational learning culture, leadership, and contextual conditions affected the likelihood of institutionalizing organizational learning mechanisms. Organizational learning mechanisms were defined as institutional structural and procedural arrangements and informal systematic practices for collecting, analyzing,

storing, and disseminating information relevant to performance of the organization and its members. The researchers identified systematic patterns of formal and informal information processing to determine organizational learning mechanisms and determined the relative importance of each from employees' perspectives; determined whether persons generating the learning were the same as those applying the learning; classified learning mechanisms as single or dual-purpose (e.g., learning that is carried out in conjunction with task performance); and identified how the mechanisms served learning in or learning by the organization. The social atmosphere and the impact of senior leadership in creating a learning climate were analyzed on the basis of contextual factors, interview data, and observations. As a result, nine mechanisms were identified regarding professional medical practice and two regarding organizational issues. Concrete, contextual, personally relevant, and action-oriented mechanisms were ranked higher than academic, general or abstract mechanisms. Only physician rounds were identified as learning by the organization because these fulfilled the hospital's task of treating patients and the medical school's task of training physicians. Otherwise, physicians tended to learn by themselves for themselves.

Lipshitz and Popper (2000) concluded that organizational learning required integrative structures (i.e., organizational learning mechanisms); was affected most by task structure, leadership style, contextual conditions, and the culture that existed in organizational sub-units; and involved both cognitive and social processes.

Organizational learning also occurred: (a) when learning resulted in changed norms and procedures, (b) in conjunction with individual learning in the organization, and (c) most often as a series of loosely coupled sub-processes (i.e., different units engaged in

different organizational learning mechanisms or used the same mechanisms very differently). The latter implied that *learning in* the organization was more common than *learning by* the organization. Finally, organizational learning was recorded in organizational memory, which existed most frequently in practices and routines versus written documentation (posited to be efficient only in small units where lessons learned are conveyed in direct interaction and do not appear to cross unit boundaries).

The research by Leithwood et al. (1998) also involved a cultural approach as they identified key characteristics that, in addition to the role of leadership, fostered organizational learning in elementary and secondary schools. These characteristics were clustered within the vision and mission, culture, structure, strategy, and policy and resources of the schools studied. In order to achieve its potential, the mission and vision of a school had to be widely understood, accessible and meaningful. The culture of a school necessitated a collegial and collaborative approach with a shared sense of community. School structure provided one of the strongest indicators of organizational learning through shared decision-making and extensive participation by staff. Schools developed strategies that promoted organizational learning through formal and informal means of communication, goal setting and professional development. Policies and resources factored heavily into organizational learning by supporting the professional development goals to meet school and individual professional growth needs.

In a study of a new elementary school conducted by Beach et al. (2002), the findings were consistent with Leithwood et al. (1998) with regard to school mission and vision, leadership, and school structure. Of note in the study conducted by Beach et al. was the explicit focus on creation of purpose and vision as the foundation for the

development of a learning organization. Several factors associated with learning organizations were found to be present in the school with regard to the creation and adoption of purpose (mission) and vision. The shared purpose and vision for the school were developed in a collaborative, facilitated process with teachers prior to the opening of the school. The purpose and vision were communicated consistently in a variety of means to students, parents, and the community. In addition, the purpose and vision provided the gauge against which policies, goals and plans were being developed and implemented. Consistent communication and implementation of the student discipline approach was also evident. The means by which the purpose and vision had been created and communicated appeared to be establishing a culture for learning.

The leadership of the school appeared to facilitate organizational learning through intentional efforts to build a leadership team of faculty and administration for decision-making, a consistent focus on communication of the purpose and vision, and development of study teams and cross-grade level teams to deal with curriculum and instruction issues. The building principals seemed to be engendering shared leadership and ownership—or buy-in—from teachers, students, and parents.

Consistent with Leithwood et al. (1998) and Lipshitz and Popper (2000), Hanson (2001) argued that organizational learning is unique to the organization and its culture. Therefore, we would expect organizational learning in the context of education to be different than business or the non-profit organization. Both Hanson (2001) and Martin (2002), would admonish us to recognize the context of higher education as different than the K-12 school system, and even the context of organizational learning for cooperative

extension as a variation from the higher education land-grant institution with which it is affiliated.

Role of Leadership in Fostering Organizational Learning

As Leithwood et al. (1998) noted in their work with K-12 educational organizations, the role of leadership is critical in the establishment and fostering of learning organizations. Schein (1992, 2004) and Fullan's (2001) discussions explicitly focused on the role of leaders in shaping the culture of the organization to deal with change. Research that deals with the specifics of the role of leaders in facilitating organizational learning has been varied.

Birnbaum (1988) noted the collegial culture in higher education, especially among smaller campuses. While he observed that the collegium was less the case in larger, research intensive universities, he nonetheless pointed out that the collective decision making is seen in subcultures and subunits of these institutions, which he likened to cybernetic systems. Leadership's role, he asserted, was to manage the boundaries of the organization, pay attention to correcting what is wrong, and designing systems for feedback that lead to self-corrective actions. His findings suggested that top leadership plays a significant role in time of change and in creating opportunities or setting the stage for communication among faculty and directors of programs and academic subunits. However, Birnbaum noted, the essence of the institution and its actions are "in large measure fulfilled through the socialization of the participants, professional traditions, and institutional hierarchies" (p. 207). That the "administrator is not an appendage sitting atop the organization but an integral part of a complex network within it" (p. 225) reflects both the marriage that occurs between top leadership and the

organization and the collegial culture that underpins the higher education institution, according to Birnbaum.

Stewart (2001) noted that writers about management tend to espouse the view that the manager can create a learning organization. McHugh et al. (in Stewart) illustrated this point as follows:

It may be that a formalised, management-led learning process can never lead to a LO [learning organization]. To have fully open learning requires that it is the people involved in the learning process that transform the organisation, and not that it should serve as a device to transform and mould them. (p. 144)

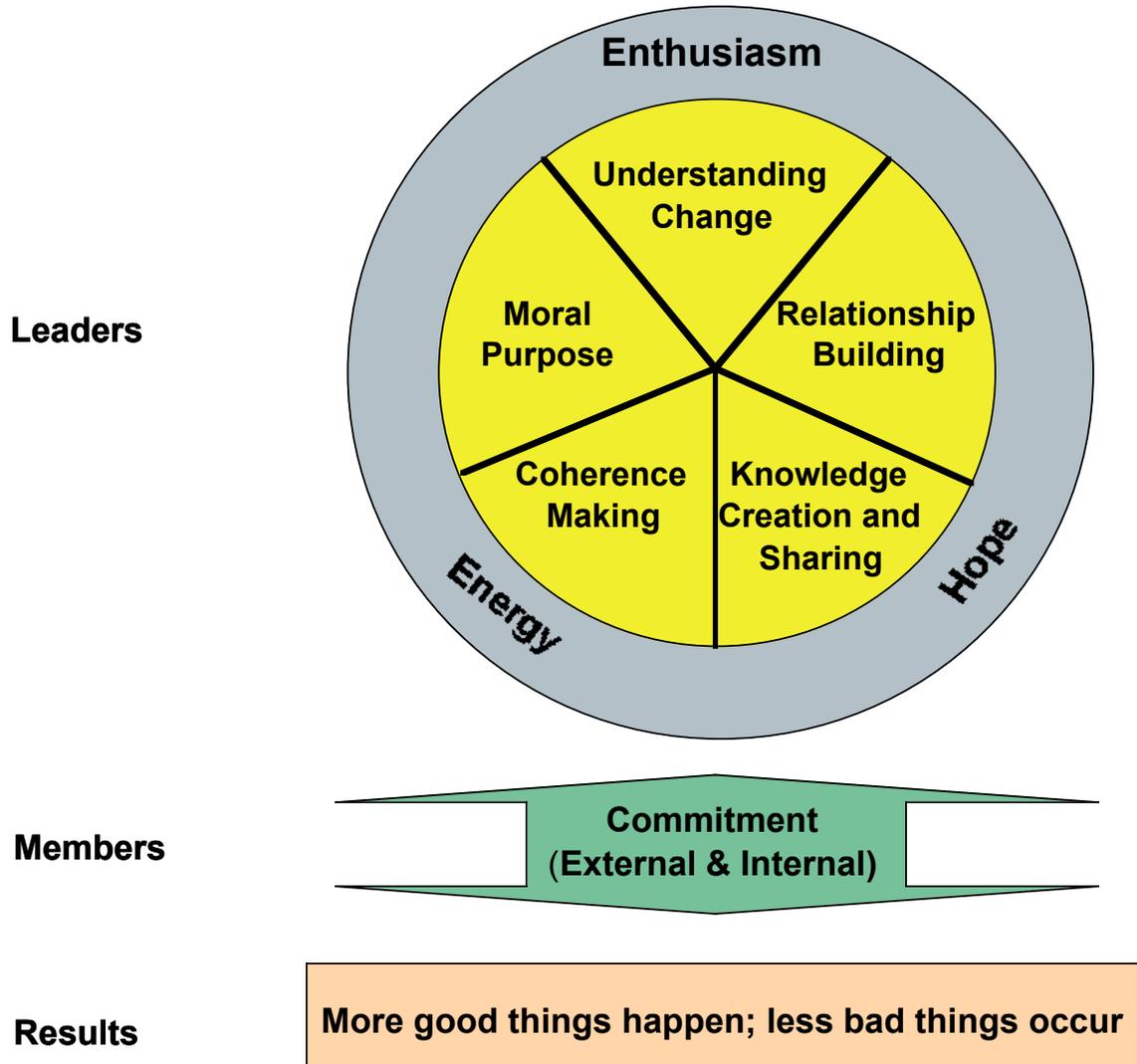
Schein (1992) also inferred that a leader at best creates a culture for learning. His discussion of the learning leader's role as culture manager in mature and potentially declining organizations focused on top leadership. He noted that the greatest barrier is that of overcoming embedded constraining cultural assumptions. The ability to overcome this barrier to effect new learning and change, he asserted, depends on the organization's empowerment of the leader and the degree of adaptability to environmental shifts built into the culture. Such a leader must be able to recognize the old culture and ways, identify alternatives, and implement a process for change. In this process, old and constraining assumptions must be unfrozen, redefined, and refrozen. He included in the critical roles of leadership the formulation of strategy and implementation, defined as follows:

- (1) to perceive accurately and in depth what is happening in the environment,
- (2) to create enough disconfirming information to motivate the organization to change without creating too much anxiety,
- (3) to provide psychological safety by either providing a vision of how to change and in what direction or by creating a process of visioning that allows the organization itself to find a path,
- (4) to acknowledge uncertainty,

- (5) to embrace errors in the learning process as inevitable and desirable, and
- (6) to manage all phases of the change process, especially the management of anxiety as some cultural assumptions are given up and new learning begins. (pp. 383-84)

Schein maintained this role of organizational leadership must be continual for successful organizational maintenance.

Fullan (2001) concluded that effective leaders in business and public organizations, including education, must not only deal with change but also create a culture that embodies and embraces change. He maintained that leading in a culture of change requires leadership to generate internal and external commitment for change and organizational function by: (a) creating moral purpose, (b) understanding the change process, (c) focusing on relationship building, (d) establishing mechanisms for knowledge creation and sharing, and (e) providing means for coherence making (interpreting and making sense of learning and of change in the world) (See Figure 2.4). In an in-depth study of companies that had transcended from the status of “good” to “great,” Collins (2001) also found that leadership was key. Collins identified a hierarchy of five levels of leadership that exists in companies. At the base are Level 1 leaders who are highly capable individuals that make “production contributions through talent, knowledge, skills, and good work habits” (p. 20). Level 2 leaders are contributing team members who “contribute “individual capabilities to the achievement of group objectives and works effectively with others in a group setting” (p. 20). Level 3 leaders organize “people and resources toward the effective and efficient pursuit of predetermined objectives” (p. 20). Level 4 leaders are effective leaders who catalyze “commitment to and vigorous pursuit of a clear and compelling vision, stimulating higher



Note. Adapted from *Leading in a culture of change* by M. Fullan, 2001, p.4. Copyright © 2001 by Jossey-Bass, San Francisco. Adapted by permission of Jossey-Bass Publishers, Inc.

Figure 2.4. Leading organizations in a culture of change.

performance standards” (p. 20). Finally at the pinnacle are the Level 5 leaders who were necessary for organizational breakthrough to excellence. These leaders are executives who “build enduring greatness through a paradoxical blend of personal humility and personal will” (p. 20), and “channel their ego needs away from themselves and into the larger goal of building a great company....Their ambition is first and foremost for the

institution, not themselves” (p. 21). Despite the fact that Collins was primarily concerned with the top leadership, his description of leadership characteristics and focus on finding the right people to work in the organization, dialogue and engagement resonate with Nonaka, Konno et al. (2001) and Von Krogh et al. (2000, 2001). The latter contended that top and middle leaders have a critical role to play in creating a caring and trusting environment for spawning organizational learning and innovation. As such this requires top and middle leaders who are more than Level 1 or 2 leaders as described by Collins.

Oshrey’s (1985) work on organizational systems pointed to the existence and the interplay between the “tops,” “middles,” and “bottoms” within the organization. Rosser (2004) and Rosser, Johnsrud & Heck (2003) also noted the importance of middle leaders in higher education. Nonaka and Takeuchi’s (1995) research also portrayed the importance of three key groups in the organization: the knowledge officers (tops), the knowledge engineers (middle managers), and the knowledge practitioners (technical and scientific professionals and front-line employees/managers). They found that the organizational knowledge creation process was fostered by “middle-up-down management” which narrowed the gap between vision and reality, synthesized tacit knowledge of top leadership and front-line employees, and made tacit knowledge explicit within the organization.

Tierney (1991) argued that Western academic institutions are the organizations which most closely resemble the key characteristics of Japanese firms—highlighting lifetime employment, decision making by the collective, individual responsibility, infrequent promotion, and often informal and implicit evaluation. Yet, he noted, “Research in higher education, however, has moved toward defining managerial

techniques based on strategic planning, marketing and managerial control” (p. 129). Therefore looking at the work of Nonaka and Takeuchi (1995, 2004) that focused primarily on Japanese institutions may be very instructive to higher education. The following discussion details Nonaka and Takeuchi’s (1995) findings regarding the roles of the three arenas within the organization as their interaction is key to organizational learning.

Role of Top Leadership

Nonaka and Takeuchi (1995) identified the top leaders or senior managers at the corporate level as “knowledge officers.” Knowledge officers produce and control the knowledge creation process on a hands-on basis as well as by deciding which projects to create and fund. They give the knowledge creation process direction by “articulating the grand concept” or the “conceptual umbrella” for what the company ought to be, establishing the corporate vision, policy statements, and the values that underpin these, and “setting the standards for justifying the value of the knowledge that is being created” (p. 156). Nonaka and Takeuchi reported that top leaders ideally possess the following seven characteristics:

- (1) ability to articulate a knowledge vision in order to give a company’s knowledge-creating activities a sense of direction;
- (2) capability to communicate the vision, as well as the corporate culture on which it is based, to project team members;
- (3) capability to justify the quality of the created knowledge based on organizational criteria or standards;
- (4) uncanny talent for selecting the right project leader;
- (5) willingness to create chaos within the project team by, for example, setting inordinately challenging goals;
- (6) skillfulness in interacting with team members on a hands-on basis and soliciting commitment from them; and
- (7) capability to direct and manage the total process of organizational knowledge creation. (p. 158)

These aspects of the nature of top leadership roles as depicted by Nonaka and Takeuchi are put forward as a possible translation to the extension service in Figure 2.5. The basis for suggesting this translation is founded in the workable translation to an elementary education setting by Beach et al. (2002).

Role of Front-line Employees

Nonaka and Takeuchi (1995) also defined the role and characteristics of the front-line workers, which they labeled the “knowledge practitioners.” Key to Nonaka and Takeuchi’s understanding of organizational learning are the following: (a) the knowledge workers’ knowledge represents both an organizational resource and an output of the organization; and (b) their knowledge is intellectual, “hands-on,” and experiential. Nonaka and Takeuchi also identified five ideal characteristics of the knowledge practitioner as needing to include the following:

- (1) high intellectual standards; ...
 - (2) a strong sense of commitment to re-create the world according to their own perspective; ...
 - (3) a wide variety of experiences, both inside and outside the company;...
 - (4) skilled in carrying on a dialogue with customers as well as with colleagues within the company; and ...
 - (5) open to carrying out candid discussion as well as debates with others.”
- (p. 154)

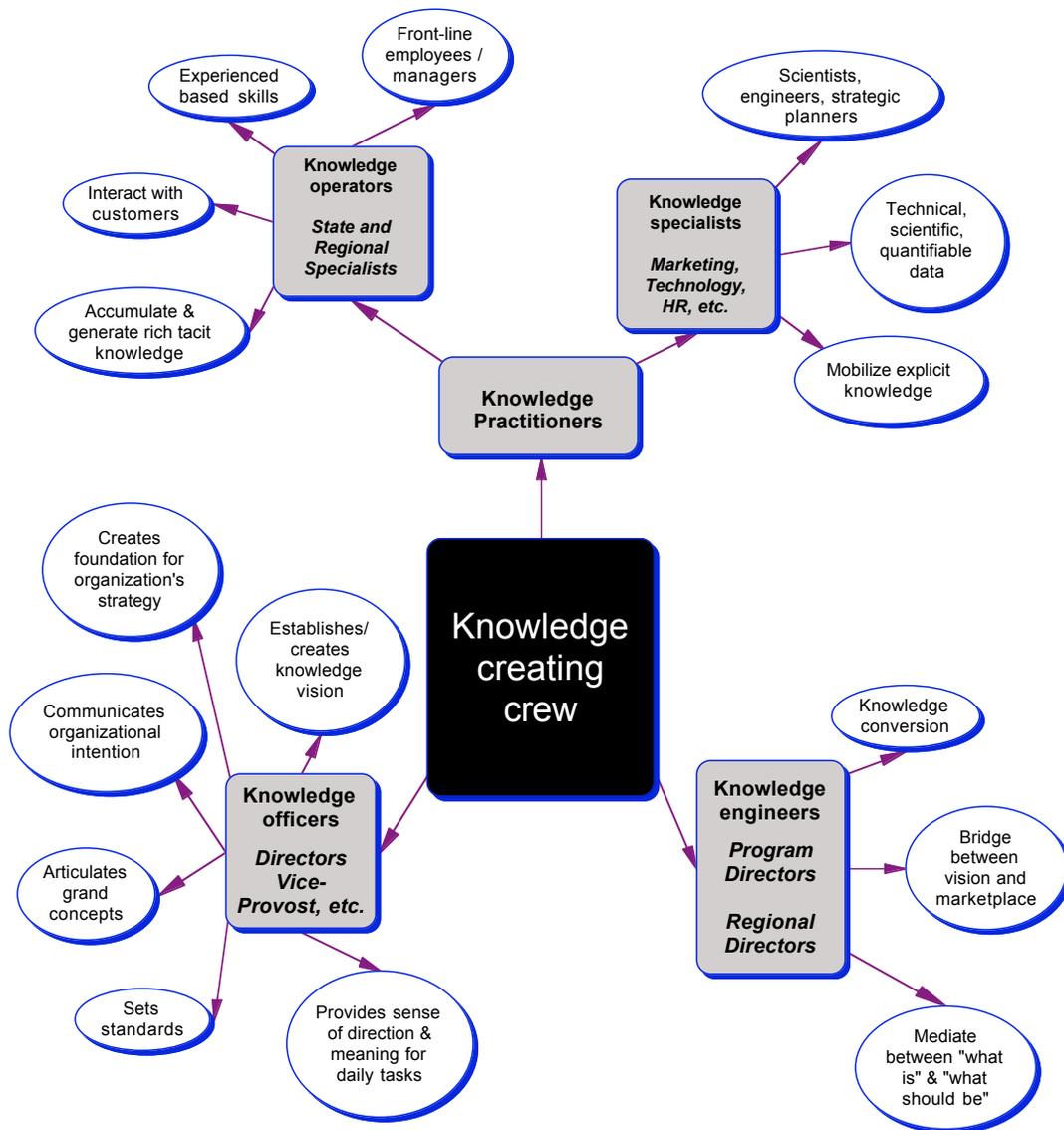
Aspects of the nature of the front-line knowledge practitioner roles depicted by Nonaka and Takeuchi, as a possible translation to Extension can be seen in Figure 2.5.

Role of Middle Managers or Mid-level Leaders

Many authors and researchers— Bennis (2001), Collins (2002), Drucker (in Bennis et al., 2001), and Garvin (2000), to name a few—have focused predominantly on the role of the top leadership in the organization and its learning in their writing and research on leadership, organizational learning, and organizational development. The

attention given to flattened organizational structures promulgated in organizational re-engineering and restructuring (Nonaka & Takeuchi, 1995) and the web of inclusion (Helgesen, 1990, 1995) has tended to focus on the top leadership and/or the production workers. Yet, most organizations, at least in education, continue to include middle leaders and managers as a critical part of the organizational structure and function (Rosser et al., 2003; Rosser, 2004).

While many organizations are still functioning with the critical role of middle managers and leaders, very few studies have been conducted that look at the role of these mid-level leaders (Ellinger et al., 1999; Nonaka & Takeuchi, 1995; Rosser, 2004; Rosser et al., 2003). In the realm of higher education, Rosser (2004) focused on the worklife issues of middle leaders, comprising non-exempt, non-faculty administrative middle leaders. With regard to this non-faculty group, she observed, “By virtue of their ‘middleness,’ within academic organization as midlevel leaders must find the balance between superior’s directions and the needs of those who require their support and service” (p. 319). She also noted that they performed an array of services for a variety of constituents yet remained loyal to the institutions. In their study of deans, Rosser et al. (2003) noted they played the roles of coalition builder, negotiator, and facilitator. They pointed out how deans simultaneously face the faculty and the academic vice-president, stating, “Deans must work with a range of interests, individuals, and groups” (p. 2). Rosser et al. successfully measured perceptions of leadership effectiveness of academic deans from both individual and organizational level on the basis of vision and goal setting; management of the unit interpersonal relationships; communication skills; research,



Note. Based on *The knowledge creating company: How Japanese companies create the dynamics of innovation* by I. Nonaka and H. Takeuchi, 1995. Copyright © 1995 by Oxford University Press, New York.

Figure 2.5. The knowledge creating crew as anticipated within Extension.

professional, community endeavors, and quality of the units' education; and support for institutional diversity. Based on the perceptions of faculty and staff, they concluded the

most effective deans were more effective in interpersonal skills, communication skills, and vision and goal setting.

A few authors and leaders such as Kerfoot (2005) have argued for servant leaders who lead from the middle of the organization, noting, “Growth can’t be mandated from the top” (p. 229). One striking aspect of the learning organization key to Nonaka and Takeuchi’s (1995) research is the role of the middle manager in Japanese companies as opposed to other prevailing models that promote a hierarchical, bureaucratic organization or a flattened organization. Their work builds the case for middle managers as the key bridge between visionary top leaders and the chaotic “make it work” front-line employees. Effective middle managers are “knowledge engineers” who “serve as a bridge between the visionary ideals of the top and the often chaotic market reality of those on the front line of business” (p. 154). In Nonaka and Takeuchi’s business parlance, these knowledge engineers focus on knowledge conversion, “mediate between ‘what is’ and ‘what should be,’” and “remake reality—or, to put it differently, engineer new knowledge—according to the company’s vision” (p. 154). Nonaka (2004) further delineated their roles, saying:

As team leaders, middle managers are at the intersection of the vertical and horizontal flows of information in the company. . . . [M]iddle managers synthesize the tacit knowledge of both front-line employees and senior executives, made it explicit, and incorporated it into new technologies and products. In this respect, they are the true “knowledge engineers” of the knowledge-creating company. (p. 46)

Figure 2.5 depicts the roles and the interactions of the knowledge officers, knowledge engineers, and the knowledge practitioners within the organization, as a possible translation to the extension service.

The role of the mid-level leader is one that warrants further inquiry in the different arena of western culture and of an educational institution. For example, Beach et al. (2002) determined preliminary evidence existed for the Nonaka and Takeuchi's (1995) configuration of a knowledge creating crew within an elementary school focused on creating a learning organization. They ascertained that the principals were acting as the knowledge officers, the teachers' leadership committee was functioning as the group of knowledge engineers, and the teachers and staff were the knowledge practitioners. The teachers' leadership committee formed a two-way bridge between the principals and students/teachers.

Takeuchi (2004) also related how the Graduate School of International Corporate Strategy at the public Hitotsubashi University (Hitotsubashi means "one bridge") in Tokyo had been created in April 2000 and continues to function using the concepts of knowledge creation Nonaka & Takeuchi, 1995; Von Krogh et al., 2000) and a dialectic organization, which fosters synthesis of apparent opposing paradigms and practices (Takeuchi & Nonaka, 2004). They concluded that one way the organization accumulates knowledge is from outside the organization and then leaders and middle leaders facilitate its sharing widely within the organization, its storage as part of the knowledge base, and its use by those inside who are creating new knowledge. As a dialectic organization, the ICS has sought to bridge and transcend the opposing worlds of the East and West, small and large, new and old, practice and theory, cooperation and competition, public and private, haves and have-nots. This work built on the concept of leaders as knowledge enablers.

Leaders as Knowledge Enablers

Stewart (2001) observed,

Much of what is written about the learning organization appears to forget the irrational and emotional dimensions of learning in organisations....The emotional climate will deeply influence organisational dynamics, for example creativity and the generation of ideas, the organisation's readiness for change, and the facilitation of learning." (p. 145)

Several researchers have proposed the concept of leaders as knowledge enablers in this context of organizational learning. Ellinger et al. (1999) focused on managers as facilitators and coaches of learning. From a different perspective, Nonaka, Konno, and Toyama (2001); Nonaka, Reinmoeller, and Senoo (2000); and Von Krogh et al. (2000, 2001) advanced the Japanese concept of *ba* and the role of care in organizations with regard to top and middle leaders' enabling organizational learning and knowledge creation.

Managers as Facilitators of Learning

Ellinger et al. (1999) explored the processes and behaviors associated with how leaders and managers facilitate learning and build learning organizations in the business world. Their research sought to determine managers' beliefs about their roles as facilitators of learning, what triggers managers to engage in a learning episode, the types of behaviors that contribute to the role of managers as facilitators of learning, and the outcomes associated with the learning episode for managers, learners, and the organization. The descriptive study relied on identification and analysis of critical incidents identified during in-depth interviews with 12 managers nominated by casebook authors from five selected cases (most likely business organizations) presented in an

American Society for Training and Development casebook about creating a learning organization.

Ellinger et al. (1999) found clusters of managers' beliefs affecting the facilitation of learning focused on roles, personal capabilities, general capabilities, learners, the learning process, and learning. Dominant was the managers' belief regarding their role to facilitate learning and development. Managers viewed their directive role at one end of a continuum and their role as a coach who empowers at the other end of the continuum. Triggers for managers to facilitate learning included gaps, deficiencies, and discrepancies. The two distinguishing trigger clusters for learning organizations found in this study were developmental opportunity and identification of high consequence/high visibility issues. Manager behaviors clustered into two categories: empowering and facilitating. Behaviors not found in traditional coaching literature included communicating expectation for fit into the big picture, provision of reflective and third-party feedback, encouraging employees to broaden perspectives and see things as others do, and creating systems for continuous learning. Outcomes, as perceived by managers, were clustered according to learner, manager, and organizational outcomes. Managers reported positive learning outcomes for all three clusters.

Ellinger et al. (1999) concluded that managers must make the shift from the traditional role of orientation of manager to that of coach and enabler in order for the organizational culture to change to one of a learning organization, and facilitation of learning may have even greater impact on managers and the organization than on the learners/employees. The limitations of the study arose from both the learner and organizational outcomes having been defined by the perceptions of the managers versus

those of the employees and actual performance measures. The implications for practice primarily inform the informal and formal training to assist managers in developing the “people development” skills necessary for reframing their roles as facilitators of learning.

Managers and the Concept of Caring and Ba

Nonaka, Konno et al. (2001), Nonaka, Reinmoeller et al. (2000), and Von Krogh et al. (2000) rooted the key knowledge enabling behavior of leaders in the Japanese concept of *ba* described earlier. As Nonaka, Konno et. al. (2001) described, “To manage knowledge creation, leaders must manage *ba* by providing *knowledge vision* and by *building and energizing ba* [original emphasis].... Especially crucial to this management is the role of knowledge producers, the middle managers who actively participate in the process” (p. 25) because they manage the space for interaction between organizational members and the environment. The middle manager’s role is to translate and broker the values and visions of the top leadership into concepts and images that can guide the knowledge creating process. Nonaka, Reinmoeller et al. stated that middle managers recreate reality, or ‘produce new knowledge,’ according to the company’s vision. Middle managers also build and energize *ba* through: (a) providing physical and virtual space; (b) providing autonomy for self-organizing; (c) stimulating creative chaos necessary for interaction between organizational members and the environment; (d) allowing for sufficient redundancy of information to increase understanding; (e) ensuring requisite variety (i.e., the organization’s internal diversity matches the external diversity) in order to handle the many contingencies; and (f) fostering care, trust, and commitment.

Building on the concept of *ba*, Von Krogh et al. (2000, 2001) delineated five dimensions of caring as part of the *ba* essential to enabling knowledge. These include (a)

establishing mutual trust; (b) exercising active empathy so that one can assess and understand what another needs; (c) extending access to real and tangible help; (d) applying lenience in judgment in order to foster creativity and a willingness to experiment; and (e) displaying courage in experimenting, sharing ideas with others in a micro-community, and voicing one's opinion or giving feedback to others.

Concept of Care

One key contribution of Von Krogh et al. (2000, 2001) was the conceptualization of care in relationship to the individual and social knowledge. Figure 2.6 portrays a matrix that indicates these relationships. When little care is exhibited in the organization, tacit knowledge is not accepted as a valid source of information and hypercompetition exists between individuals. Employees recognize they are rewarded on the basis of their expertise versus the degree to which they help others; therefore, sharing of explicit knowledge is based on expected returns. In the converse, when care is high in the organization, individuals are supported, more likely to share tacit knowledge, and create knowledge while bestowing it to others. Von Krogh et al. (2000) noted:

Indwelling is about commitment to an idea, to an experience, to a concept, or to a fellow human being. In developing shared tacit knowledge, experiences, perspective, and concept of other participants—to shift from a commitment to one's own interest to that of the group.... Community members literally make changes in their lives. (p. 58)

To foster indwelling in the workplace, Von Krogh et al. (2000) suggest top and middle managers engage in the following tasks:

- (1) review the knowledge vision....
- (2) identify sources of tacit knowledge....
- (3) identify the likely impact of this tacit knowledge on the vision and how accessible the sources are....
- (4) establish caring relationships with each source of tacit knowledge....

- (5) build up a common experience base with each source based on caring....
- (6) allow for numerous reiterations of steps 4 and 5....
- (7) evaluate the results of indwelling. (p. 59)

	Individual Knowledge	Social Knowledge
Low Care	<p style="text-align: center;">SEIZING Everyone out for himself</p>	<p style="text-align: center;">TRANSACTING Swapping documents or other explicit knowledge</p>
High Care	<p style="text-align: center;">BESTOWING Helping by sharing insights</p>	<p style="text-align: center;">INDWELLING Living with a concept Together</p>

Note. From Table 3-1 in *Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation* by Georg Von Krogh, Kazuo Ichijo, & Ikujiro Nonaka, 2000, p. 55. Copyright © 2000 by Oxford University Press, Inc., New York. Used by permission of Oxford University Press, Inc.

Figure 2.6. The two domains of knowledge creation and care in organizations.

Fostering organizational learning through community. Other researchers have also focused on the concept of relationships and ways that people within the organization connect with each other. Axelrod (2000) combined praxis and reflection with the research from organizational development and asserted that four key factors are essential to engaging organizations in learning for enduring change: (a) widening the circle of involvement, (b) connecting people to each other, (c) creating communities for action, and (d) embracing democracy. Gozdz (2000) maintained that a sustainable and authentic learning organization embraces a transpersonal world view; engages in triple loop learning; and creates communities of praxis that rely on high levels of communication and institutionalize civility, governance, and leadership.

Like Gozdz (2000) and Axelrod (2000), Von Krogh et al. (2000, 2001), found the developing and nurturing of micro-communities essential to the organization's ability to enable learning. They noted that micro-communities of knowledge are not synonymous with teams but consist of small communities within the organization whose members share what they know as well as common goals and vision. These communities, usually comprising five to seven people, are small in order to foster the emergence of new tacit knowledge through socialization. The micro-community starts as a "fused group" where individuals develop reciprocal relationships and shared curiosity. They often evolve into a "pledged group" that organizes rights and duties of the members through a pledge or charter, initiates action, and develops internal coherence and identity.

Micro-communities, as described by Von Krogh et al. (2000, 2001) also resonated with both Wenger's (1998) and Engestrom's (in Eraut, 2003) definitions of community of practice. Wenger defined the community of practice as the entity for organizational learning, based on participation and the sense of community among a set of professionals with a certain degree of commonality to their discipline. Engestrom focused on the perspective of practice, or the activity structure, as the organizing principle for the community of practice, i.e., the members are focused on the same objectives. In taking into account the design principles set forth by Hock (1999), Morgan (1997), and Nonaka and Takeuchi (1995), diversity is critical for organizational learning but can be achieved in multiple ways through either Wenger's or Engestrom's focus.

The Role of Leaders as Knowledge Enablers

Von Krogh et al. (2000, 2001) further explored the role of leaders as knowledge enablers with regard to the organizational learning process. They identified five key

activities in which leaders engage to foster knowledge creation or organizational learning. These five knowledge enabling activities of leaders identified by Von Krogh et al. (2000, 2001) are consistent with the middle manager roles defined by Nonaka and Takeuchi (1995). Figure 2.7 maps these leadership behaviors against the five phases of knowledge creation ascertained by Nonaka and Takeuchi. As Von Krogh et al., Nonaka, Konno, et al. (2001), and Nonaka, Reinmoeller, et al. (2000) have demonstrated, one of the factors contributing to organizational learning is a great deal of intentional communication. The knowledge enabling activities are further described as follows.

Instilling a knowledge vision. First, leaders instilled a knowledge vision encompassing the future, based on current conditions, and cognizant of the past (Von Krogh et. al, 2000, 2001). The vision should also specify what knowledge the members of the organization need to seek, and create. A good knowledge vision is characterized by the following: (a) strong commitment from top leadership; (b) capable of spurring new thinking, ideas, concepts, and actions (i.e. generate organizational imagination); (c) having its own style that is specific to the organization (just as organizational vision statements are created in styles that fit the organization); (d) pushes to restructure the current knowledge system, extending the organization beyond knowledge gained by past experiences; (e) indicates where the company needs to change how its work gets done; (f) communicates to stakeholders the what kind of knowledge is to be gained and its value; and (g) helps the company maintain its competitive edge. Von Krogh et al. acknowledged that there are multiple ways to get to the knowledge vision and that the vision must be flexible enough to allow for new insights that inevitably emerge.

Managing conversations. Second, according to Von Krogh et al. (2000, 2001)

leaders acted as knowledge enablers by managing conversations within the organization around knowledge creation. They pointed to this feature as critical in every phase of knowledge creation and learning, noting that communication is nearly 80 percent of the work of such managers. Four guiding principles for managing conversations emerge

	Share tacit knowledge	Create concepts	Justify concepts	Build Prototype	Cross level knowledge
Instill vision		✓	✓✓	✓	✓✓
Manage conversations	✓✓	✓✓	✓✓	✓✓	✓✓
Mobilize knowledge activists		✓	✓	✓	✓✓
Create right context	✓	✓	✓✓	✓	✓✓
Globalize local knowledge					✓✓

Note. From Table 1-1 in *Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation* by Georg Von Krogh, Kazuo Ichijo, & Ikujiro Nonaka, 2000, p. 9. Copyright © 2000 by Oxford University Press, Inc., New York. Used by permission of Oxford University Press, Inc.

Figure 2.7. Knowledge enabling activities of leaders in the organizational learning process.

from their research as follows. First, actively encourage participation from people with a wide variety of backgrounds, skills, experiences and education, age, and functional responsibilities. Second, establish rules and etiquette for conversations that make for pleasant and memorable experiences. Suggestions included avoidance of unnecessary

ambiguity, intimidation, exercising authority, premature closure, and making false statements knowingly; being brief and orderly; and helping other participants be brave. Third, edit conversations appropriately so they convey agreement and understanding of an expression of concepts that are critical to the learning process. Fourth, foster innovative language as the medium for expression. Examples shared included the use of circles of meaning and scaling spatially and temporally to provide different yet rich perspectives. As a result of their research, Von Krogh et al. (2000) developed a set of conversational guiding principles for each stage of knowledge creation that fosters active participation, conversational etiquette, editorial judgment, and innovative language.

Mobilizing knowledge activists. Third, Von Krogh et al. (2000) showed that leaders enabled knowledge creation by mobilizing knowledge activists. They defined a knowledge activist as a manager with a broad social and intellectual vision as well as experience in nitty-gritty business operations, who connects external and internal knowledge initiatives, and who mobilizes workers throughout organization to use knowledge more effectively. They distinguished knowledge activists from knowledge officers by virtue of the roles as “catalyst, connector, and merchant of foresight, [whose] ...efforts only influence companywide processes of knowledge creation—they do not control them” (p. 158). They have direct and immediate contact with a variety of micro-communities, help form new ones, and connect existing ones. They develop and share the roadmaps for cooperation and link the established vision for the organization with ongoing conversations. In detailing the role of knowledge activists, Von Krogh et al. developed a skill profile of the ideal knowledge activist around the multiple roles of catalyst, coordinator, and merchant.

Using appropriate and flexible organizational structures. Fourth, leaders created the right context for enabling knowledge development through using appropriate and flexible organizational structures that fostered relationship building and effective collaboration. Von Krogh et al. (2000, 2001) found that managers enacted different structures such as cross-divisional units, task forces, virtual networks, and empowered divisions dependent on whether new or existing knowledge was involved and whether it was a new or existing business. They also found that face-to-face individual interaction was essential to sharing tacit knowledge, group face-to-face interaction to forming concepts while virtual interaction fostered individual internalization of explicit knowledge to tacit knowledge and collective documentation of knowledge into explicit forms.

Globalizing local knowledge. Fifth, Von Krogh et al. (2000, 2001) found leaders enabled knowledge creation through globalizing local knowledge (cross leveling knowledge within the organization) by recognizing appropriate triggers for packaging and dispatching of knowledge and fostering the knowledge re-creation process in the organization. The latter recognizes the situational context of learning and the fact that transference requires adaptation to new local situations, even in the same organization. Von Krogh et al. presented different approaches to knowledge re-creation with regard to who is responsible, appropriate timing, location, and their appropriateness for reducing costs, entering new markets, creating new products, establishing new services, or elaborating new processes.

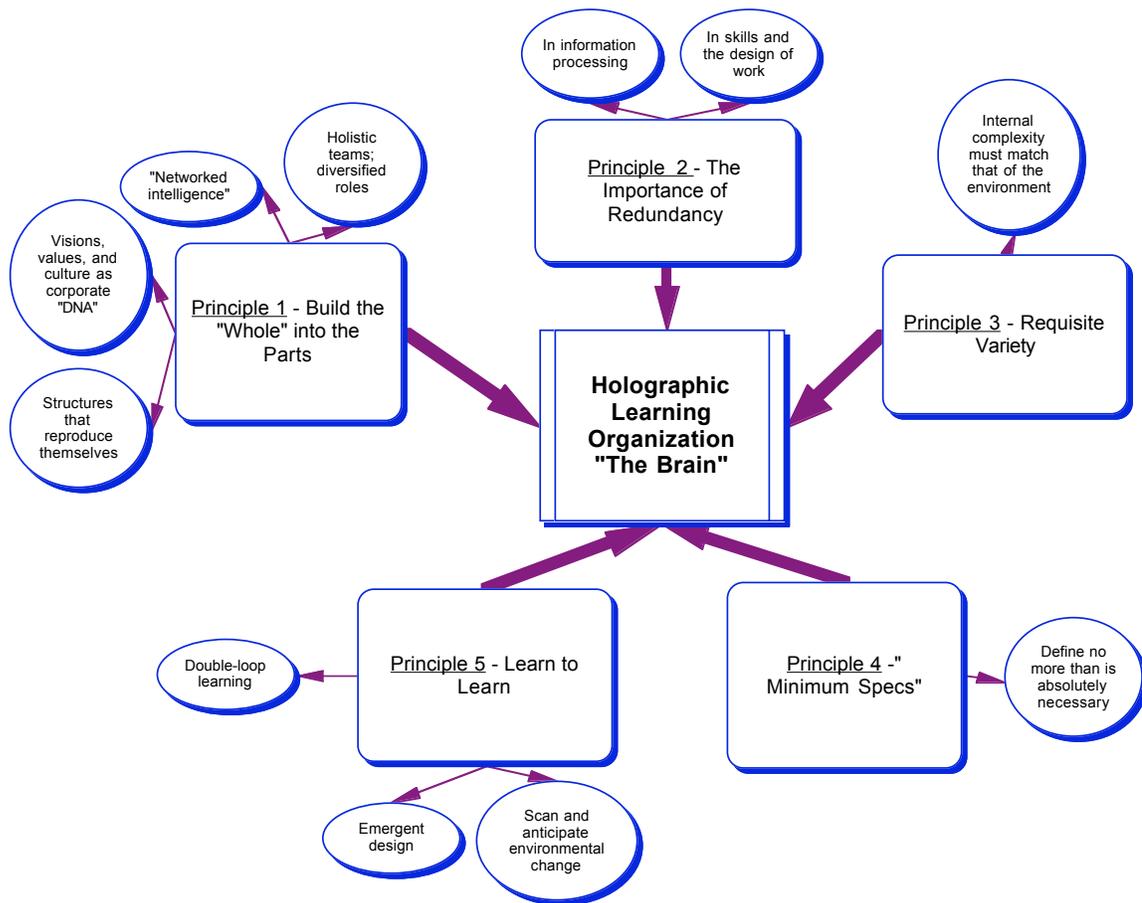
Design of the Organization to Facilitate Organizational Learning

An organization's design or structure is closely related to culture and in its affect on organizational learning. Key authors who have focused on organizational design that facilitates organizational learning include Nonaka and Takeuchi (1995), Morgan (1997), and Hock (1999). Nonaka and Takeuchi's hypertext organization, Morgan's holographic and Hock's chaordic organization are each premised on a similar set of five key principles that enable organizational learning. These principles, depicted in Figure 2.8, include:

1. build the whole into all parts through vision, values, holistic teams, networked intelligence, and structures that reproduce themselves;
2. redundancy for information processing, skills, and design of work;
3. requisite variety (internal complexity that matches that of the environment);
4. minimum specifications or purpose that defines only that which is absolutely necessary (Nonaka & Takeuchi call this *intention*, Hock calls it *purpose*); and
5. learning to learn through environmental scanning and anticipation of change, double loop learning, and creation of emergent design (Nonaka and Takeuchi call this *fluctuation and creative chaos*).

Hock (1999) also pointed out that cooperative extension by its nature has significant chaordic features that could enable it to recreate itself as an organization for the future. Little research has looked specifically at cooperative extension and explored the factors contributing to the development of a learning organization within extension. In the study conducted by Beach et al. (2002), the middle-up-down leadership structure found by Nonaka and Takeuchi (1995) in business organizations appeared to be a

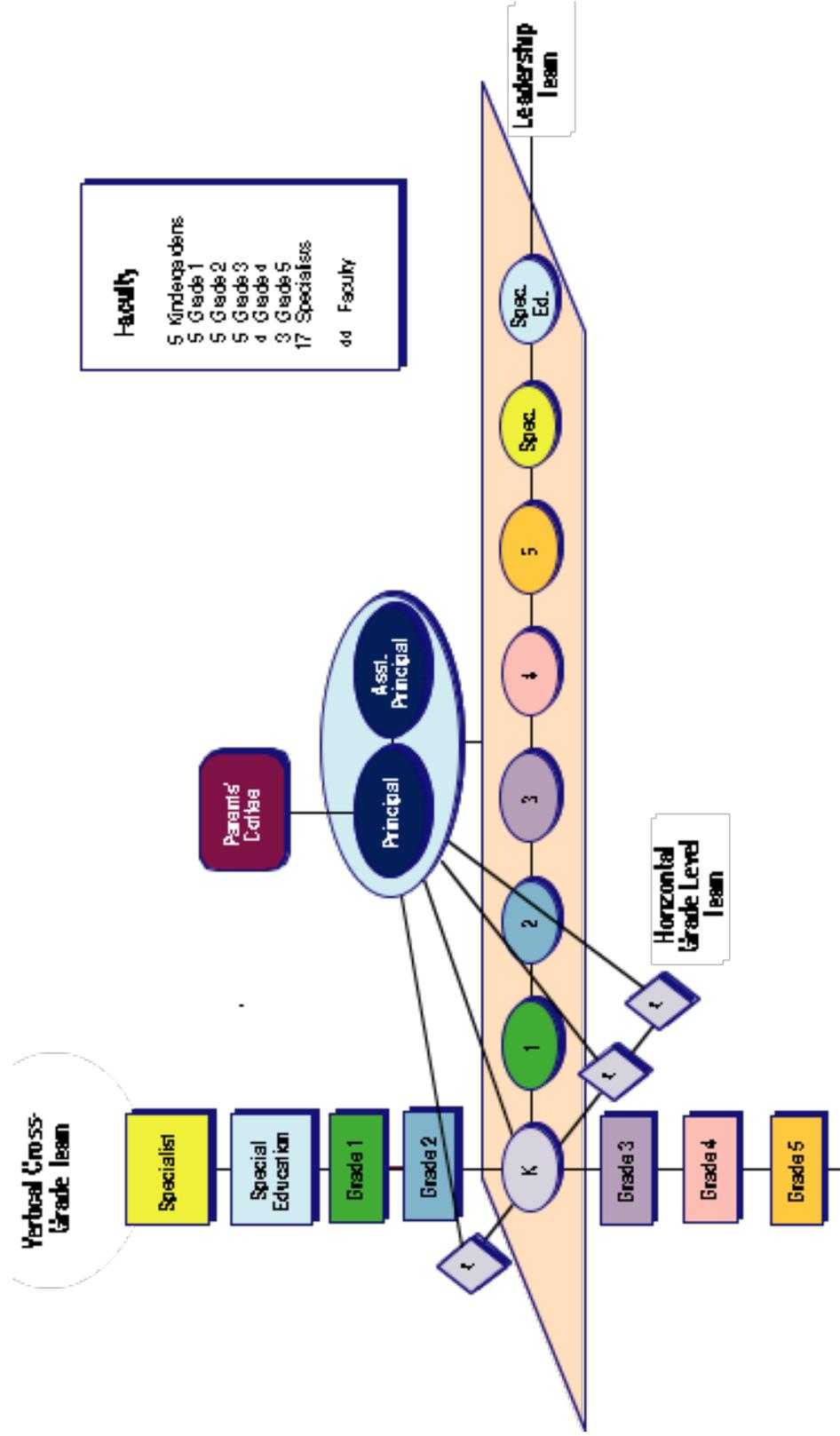
valuable model for an elementary school (See Figure 2.9) with the principals functioning as knowledge leaders, the teacher leadership committee members and vertical teams as the knowledge engineers (middle), and the teachers and staff as the knowledge crew. Early in the new school's operation, indications existed that the teachers created knowledge through teams comprising teachers of a specific grade level and through vertical teams which were essentially teacher study groups. The teachers' leadership



Note. Based on *Images of organization* (2nd ed.) by G. Morgan, 1997. Copyright © 1997 by Sage, Thousand Oaks, CA.

Figure 2.8. Morgan's holographic learning organization.

committee were represented on both types of teams. The creation, communication, and implementation of purpose and vision reflected Nonaka and Takeuchi's knowledge



From Fostering a Learning Organization at ABC School by R. Beach, T. Conrad, L. Kaiser, K. Lampitt, M. S. Leuci, and D. Mills, Fall, 2002, p. 28. Unpublished study.

Figure 2.9. Organizational structure intended to foster a learning organization at ABC Elementary School.

creation process. The organizational structure of the school also appeared to be conducive to the creation of a learning organization. The principal and assistant principal provided key leadership direction through frequent collaborative work with the teachers' leadership committee comprised of a representative from each grade level. Decision-making was participatory and by consensus within this group. Leadership committee members communicated regularly with their grade level teams. In addition, cross-grade level teams functioned in the creation of school goals for vision implementation and in study groups that met regularly to foster teacher learning. Parents and the community were encouraged to participate through volunteering, the PTA, parent coffees and with their Partners in Education business leaders.

Barriers to Organizational Learning

Looking at the barriers to organizational learning can also be instructive to understanding the complexity that exists around fostering organizational learning. Sun and Scott (2003) suggested that what potentially unites the divergent foci on organizational learning and the learning organization is a framework that looks at the barriers to learning in light of learning tensions that exist for organizational knowledge transfer and disabling factors to minimize these tensions. Sun and Scott did not detail the actual tensions or disabling factors. Eraut (2001) also looked at both what fostered and what hindered learning. Hanson (2001), Szulanski (2003), and Von Krogh et al. (2000) focused on individual and organization barriers to knowledge creation or organization learning. Looking at the issue of developing system or organizational intelligence, Perkins (2003) also identified human tendencies that interfere with organizational

learning. A discussion of their findings sheds light on what does indeed hinder and foster learning by the organization.

Eraut (2001) found four factors affected learning in the workplace. While he did not distinguish clearly between learning in the organization and learning by the organization, the findings apply to organizational learning (or learning by the organization). First, more organizational learning occurred when the nature, range, and structure of work activities brought about interaction, included problem solving and planning activities, and were congruent with organizational goals and strategic priorities. Second, he noted the constraints of time and space, indicating that:

Most social relationships and informal exchanges depend on people being together in the same place at the same time. Working relationships and the exchange of information significantly depend on mutual trust and regard, and the development and maintenance of such trust, as well as awareness of and respect for other people's perspectives. . . . These depend on the individual and collective management of time and space. (p. 8)

Third, the structures and patterns of social relationships in the workplace affected learning. Key was the extent to which these patterns fostered networking, communication, and exchange of information. Finally, the outcomes and evaluation practices of the work impacted the degree of learning that occurred individually and organizationally. Not surprising, work, such as that of Cross and Parker (2004) continues to emerge that documents the power of social networks to affect efficacy and innovation in organizations.

Individual Barriers

Von Krogh et al. (2000) noted two specific individual barriers to organizational learning. First, limited accommodation, or the breakdown of an individual's knowledge as justified true belief can occur in radically new situations and lead to one feeling

trapped. Second, the gain of knowledge can pose a threat to the individual's self-image. Therefore, managers cannot assume transformation into a learning organization will occur without a hitch.

Perkins (2003) identified six key factors that interfere with development of system or organizational intelligence. He identified organizational intelligence as synonymous with learning and the processes and conduct of creating knowledge collectively. The six factors included:

(1) *the five-brain backlash*, too many voices making things unproductively complicated ; (2) *cognitive oversimplification*, the human tendency to oversimplify cognitive processing; (3) *emotional oversimplification*, the equally human tendency to oversimplify emotions; (4) *regression in the face of stress*; (5) *the domino effect*, which one person's regressive behavior tips others in the same direction; and (6) *the power advantage*, the fact that power figures sometimes take advantage of regressive behaviors. [his emphasis] (p. 75)

While these are individual phenomena, one can see how they affect the organization.

Perkins noted how these factors create opportunities for leaders to facilitate the learning process.

Organizational Barriers

Von Krogh et al. (2000) also determined organizational barriers that interfere with justification when knowledge is publicly shared. These barriers are cultural in nature and similar to those noted by Bruffee (1997) and Schein (1992). First, legitimate language and common/shared language that are too fine or too general create a barrier to communication and learning. Like Schein and Martin (2002), Von Krogh et al. reported that existing organizational stories and culture can make difficult the sharing of contradictory ideas. Similarly, the third barrier, existing procedures, can interfere, especially if they are designed in a way that impedes crossing disciplinary and functional

lines within the organization. Finally, organizational paradigms—strategic intent, vision and mission, and core values—can hinder learning as these are by their very nature part of the socialization process to maintain the integrity of the organization. In fact, these authors have implied that organizational learning is threatening because it involves change.

Hanson (2001) indicated that three types of organizational myopia constrain organizational learning and ultimately affect the organizational memory and capacity for further learning. First, temporal myopia occurs when the sight for the long run challenges is lost or aggravated in the very process of learning that is intended to solve short-run problems. Second, spatial myopia is the result of subsystems or subgroups placing their interests above those of the larger organization. Third, failure myopia happens when the organization places greater emphasis on analyzing its successes to the exclusion of analyzing and learning from its failures.

As noted earlier, Hanson (2001) further argued that intelligent organizations adopt procedures that allow them to deal with constraints consistently and effectively. From an institutional theory perspective, he noted several additional barriers to organizational change that occur as a result of learning. First, the series of networks and interconnections which make up educational institutions can often lead to a trap based on a “network of constraints” (e.g., these institutions are bound by their dense network of relationships to governmental entities and rules, suppliers, and a variety of stakeholders), which limits the organization’s ability to both learn and change. Second, educational institutions operate in a fragmented external environment (e.g., with numerous authority structures and funding sources), which leads them to develop routines for operation.

However, these routines are most often interpretations of the past versus an anticipation of the future. Thus organizational rules, strategies, programs, and technologies are “forces for stability rather than change” (p. 648). Third, the external environment also pressures educational institutions toward homogeneity or “isomorphism,” which leads to a lessening of the freedom for innovation. This isomorphism results from formal and informal coercion for compliance; the conscious patterning of educational institutions on the basis of a model institution thought to represent a higher level of success or achievement; the process of professionalization of values, codes, and standards; and the adoption of externally defined goals and processes in order to establish public legitimacy. Hanson concluded that significant motivators for change in schools, therefore, are environmental shifts and shocks.

Stickiness in the Learning Process

Szulanski’s (2003) research focused on the barriers to the transfer of knowledge within business firms. His definition of transfer of practice is comparable to Nonaka and Takeuchi’s (1995) concept of cross-leveling of knowledge within an organization. In noting the difficulty and even failure that most organizations encounter in transferring best practices, he noted stickiness is encountered during the initiation, implementation, ramp-up, and integration stages of the knowledge transfer process. Initiation stickiness relates to recognition of opportunity for transfer and the decision to proceed. Stickiness in implementation focuses on the information and resource exchange that occurs between the source and the recipients of the knowledge for transfer. During ramp-up, problems emerge that prevent the recipient from meeting the expectations of the knowledge use.

The challenges during integration arise when difficulties disrupt the new routine and result in abandonment and return to former ways of doing.

Szulanski (2003) maintained that underlying factors that contribute to stickiness in knowledge transfer have mostly been attributed to motivational barriers such as inter-departmental jealousy; lack of buy-in, confidence, commitment, priority, and incentives; reticence to reinventing the wheel; turf protection; and resistance to change. His study discerned the presence of knowledge barriers and their interaction with motivation. Knowledge barriers related to the characteristics of the knowledge, the source, the recipient, and the context were analyzed with regard to their ability to predict stickiness in the transfer of knowledge during the different stages of transfer.

Szulanski (2003) identified factors related to the nature of knowledge as causal ambiguity and unproven knowledge. Causal ambiguity occurs when uncertainty exists regarding what the factors of production are, how they interact, and what causes success or failure. The tacit nature of individuals' skills and the nature of collective action affect the transfer between situations. Unproven knowledge often manifests itself when a practice has only been used for a limited time or on a limited scale; therefore, the organization cannot be sure how well it transfers to other situations.

The characteristics determined by Szulanski (2003) to be related to the source included the motivation and credibility of the source. The motivation of the source (either an individual or an entity) to share and provide easy access to information can affect the difficulty encountered in the transfer. Barriers include desires to maintain superiority, resentment over lack of recognition, or loss of control. The perceptions of recipients regarding the trustworthiness and knowledge of the source comprise the concept of

credibility. If not credible, the recipient may not rely on the source; however, an over-reliance can hamper critical thinking.

The recipient characteristics espoused by Szulanski (2003) to affect knowledge transfer include the recipient's motivation, absorptive capacity, and retentive capacity. Motivation includes willingness to accept outside sources and to engage in new learning. Absorptive capacity relates to the level of basic skill, prior knowledge and experience, and the existence of a shared language. These aspects were also noted by Brandt (1994) and Bruffee (1997) to be critical to learning. Retentive capacity is reflected in the ability of a recipient to institutionalize the new knowledge. Learning requires the ability to unlearn old ways and to routinize the new practice.

Finally, Szulanski (2003) related the characteristics of context that affect knowledge transfer difficulty as barren organizational context and an arduous relationship between the source and recipient. A barren organizational context is one where formal structures, systems, and culture for cooperation prevent an idea or practice from taking root and growing. Second, the pre-existing relationship between the source and recipient can positively or negatively affect the success of a knowledge transfer. These two characteristics relate well to the theory of leaders as knowledge enablers who fertilize and nurture relationships and knowledge creation put forth by Von Krogh et al. (2000).

Szulanski (2003) found that the most significant sources of stickiness across the various stages of transfer were absorptive capacity, causal ambiguity, and the quality of the relationship between the source and recipient. Retentive capacity, with regard to unlearning difficulties, was also important. He concluded that these factors dominated the motivation of the source and recipient as barriers to organizational transfer of learning.

Conclusion and Summary

The research regarding organizational learning and the learning organization has been conducted through a variety of theoretical lenses, creating a range of understanding and definitions. Complexity, divergence, and even confusion exists about what characterizes and contributes to organizational learning, the purpose of organizational learning, the nature of the collective learning process, and the role that leaders play in that process. While some measurement tools have been developed, these generally fall short of taking into account the context-specific nature of learning in various organizations and even within organizations. As some key characteristics of Western academic institutions closely resemble those of Japanese firms, Tierney (1991) noted, “Research in higher education, however, has moved toward defining managerial techniques based on strategic planning, marketing and managerial control” (p. 129). A review of the recent literature indicates that little research has explored the applicability of concepts put forth by Nonaka and Takeuchi (1995) and Von Krogh et al. (2000, 2001) regarding organizational learning. Their concepts of organizational learning and the role of middle leaders and their actions to foster organizational learning warrant study within Western culture and an educational organization (Birnbaum, 1988), especially within higher education and the cooperative extension organization. As Hanson (2001) and Stewart (2001) argued, organizational learning is unique to the organization and its culture; therefore, we would expect organizational learning in the context of cooperative extension to be different than in businesses, organizations, and other educational institutions. Consequently, this research study will focus on the nature of the

organizational learning and the role of middle leaders in fostering organizational learning
in the context of a state cooperative extension service in one U.S. Midwestern state.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

The purpose of this qualitative exploratory research was to examine the nature of organizational learning and the role of middle leaders in fostering or inhibiting organizational learning in the extension service of a large Midwestern land grant university. In this chapter, the research problem, rationale, purpose, and research questions are discussed. The design and research methods are explained. The selection and characteristics of the participants, types of data collected, and the multiple means of data collection and analysis are described in detail. Finally the issues of credibility, consistency, and trustworthiness are addressed.

Research Problem and Rationale

State cooperative extension services are unique higher education entities within land grant universities. The extension service comprises a partnership among federal, state, and local governments. In most states, changes have occurred in the culture, environment, leadership and politics of outreach and cooperative extension services in the past ten years. McDowell (2001) and the report of the Kellogg Commission on the Future of the State and Land Grant Universities entitled *Returning to Our Roots: The Engaged Institution* (National Association of State and Land Grant Universities, 1999) urgently called for changes in the extension service to reflect the intent of its original mission and to meet the demands of society. Similarly, the Extension Committee on Policy's *Vision for the 21st Century* (University of Illinois, 2002) responded at a national level to the demands for a more flexible and relevant extension service. Likewise, the attention given to collaborative learning with constituents, community-based programming, and

documentation of outcomes (Powers & Pettersen, 2001) are indicative of societal changes and a shift toward a learning organization within cooperative extension services.

Ladewig and Rohs (2002) also cited the focus on leadership development for a learning organization within the Southern Extension Leadership Development Program. They noted, “Because the speed at which change is occurring, state Cooperative Extension Systems, as well as other organizations, are at various states of organizational transformation designed to enable them to respond quickly to change as needed” (p. 1). Schein (2004) indicated, “The more turbulent, ambiguous, and out of control the world becomes, the more the learning process will have to be shared by all the members of the social unit doing the learning” (p. 418). Similarly, Ladewig and Rohs indicated that in order to excel in the future, extension “must discover how to tap people’s commitment and capacity to learn as well as involve people at all levels in the organization” (p. 1). Like other organizations and the rest of higher education, organizational learning, flexibility, creativity will be critical to the capacity of the cooperative extension to meet future challenges as well as ensure its long term survival, growth, and organizational effectiveness.

Leadership creates and sustains the conditions and culture for healthy learning, because it articulates, communicates, and provides overall direction for organizations (Schein, 1992; Fullan, 2001; Ladewig & Rohs, 2000; Leithwood et al., 1998). While a plethora of literature has developed around the learning organization, little empirical research has been done regarding the role that middle managers (or midlevel leaders) play in organizational learning (Ellinger et al., 1999; Leithwood et al., 1998). Nonaka and Takeuchi (1995) and Szulanski, (2003) noted the paucity of research focusing on how

leaders actually facilitate learning in a learning organization. One striking aspect of the learning organization key to Nonaka & Takeuchi's (1995) research is the role of the middle manager in Japanese companies, as opposed to other prevailing models that promote a hierarchical, bureaucratic organization or a flattened organization. Their work built the case for middle managers as the "knowledge engineers" that provide the key bridge between visionary top leaders and the chaotic "make it work" frontline employees. Similarly, Szulanski's (2003) research documented the barriers to the rare transfer of best practices among managers in corporate settings. Because the middle leader (such as a program director or regional director) is a bridge between top leadership and faculty in cooperative extension services, the role of the middle leader is one that warrants inquiry in the arena of western culture and within the educational institution and a cooperative extension service.

Purpose of the Study

The purpose of this research was to explore the nature of organizational learning and the role of middle leaders in fostering organizational learning within the extension service of a Midwestern land grant university designated as doctoral/research university-extensive. This setting and selection of organization provided a research context within both the Western culture and a higher educational institution. As Hanson (2001) and Stewart (2001) argued, organizational learning is unique to the organization and its culture. Therefore, we would expect organizational learning in the cultural context of cooperative extension to be different than in businesses, organizations, and other educational institutions. Martin (2002) also argued that in studying organizations, "The objective of a single case study, then, is an appreciation of contextually specific

knowledge rather than an understanding that emerges from the process of abstraction and generalization across cases” (p. 41). Her predilection for a contextual approach is underlined by her note that the understanding of cultural perspectives often requires an insider and a subjective approach as participants will subjectively and differently define the culture.

Research Questions

The primary question which this qualitative study addressed was: What role do middle leaders play in fostering organizational learning in the extension service of this Midwestern land grant university? As a program director in this organization, I was aware of efforts initiated by top leadership toward becoming a learning organization and had observed and reflected on organizational learning in subunits of the organization prior to conduct of the study. Given the literature reviewed, the extension service could be viewed as existing on a continuum of organizational learning. To address this question regarding the role of middle leaders in fostering organizational learning on this continuum, the following research questions were posed:

1. What is the nature of the organizational learning occurring in Extension as perceived by middle leaders (regional directors and program directors), regional and state faculty, regional extension council members, and top leadership?
2. What are middle leaders (regional directors and program directors) doing that fosters or inhibits organizational learning in Extension, as perceived by themselves, regional and state faculty, regional extension council members, and top leadership?

Design of the Study

This investigation was conducted as an embedded naturalistic case study (Patton, 2002; Yin, 2003) of a cooperative extension service of a large Midwestern land grant university designated as doctoral/research university-extensive. This Midwestern cooperative extension service (Extension) also made an ideal subject for study as others often look to this state as a bellwether state for change nationally due to this state's strong tradition as a leader in cooperative extension and the state's geographic, political, and demographic diversity. (All three are often considered representative of the country.) In addition, as a member of this organization, I had insider knowledge and access to the population as a participant observer that would not have been available to an outsider. (The bias that this potentially created is discussed later.) The qualitative design for this study drew upon Bogdan and Biklen (1998), Glaser and Strauss (1967), Huberman and Miles (2002), Merriam (1998), Miles and Huberman (1984), Patton (2002), and Strauss & Corbin (1998).

The study was designed to explore the nature of the organizational learning and the role that program directors (PDs) and regional directors (RDs) play in fostering or inhibiting organizational learning from four perspectives. These perspectives included that of the top leadership, the middle leaders (RDs and PDs) who were the focus of the study, front-line employees (regional and state faculty), and advisory council members (extension council members). A combination of focus group and individual interviews provided the data upon which to analyze the organizational learning and draw forth specific examples.

The multiple category double layer design, adapted from Krueger and Casey (2000), was conducted in two phases. The first phase involved interviews with top leaders and the middle leaders. The second phase involved interviews with front-line employees and the state extension council members. Figure 3.1 depicts the phases of the study. Following is a detailed description of the selection of the persons used in the study, data that were collected, and the methods for collection of the data.

Population

The population studied two sets of Extension middle leaders—the eight RDs located within the geographic region served and five of six PDs located on the campus. Using Nonaka and Takeuchi’s (1995) terminology, the PDs and RDs, served in official positional roles as middle leaders and had authority over “front-line” regional and state specialists. Also included in the study of middle leaders were others who directly interacted on a regular basis with the RDs and PDs. These included top leadership, regional and state faculty who develop and deliver programs and services (front-line employees), and state extension council members (advisory council). The nature of each of these and the methods for selection of the participants in each group follows.

Selection of Participants

In total, 79 persons affiliated with Extension were interviewed. These participants, their affiliation with Extension, their characteristics, and the methods for selection of each subgroup will be further described.

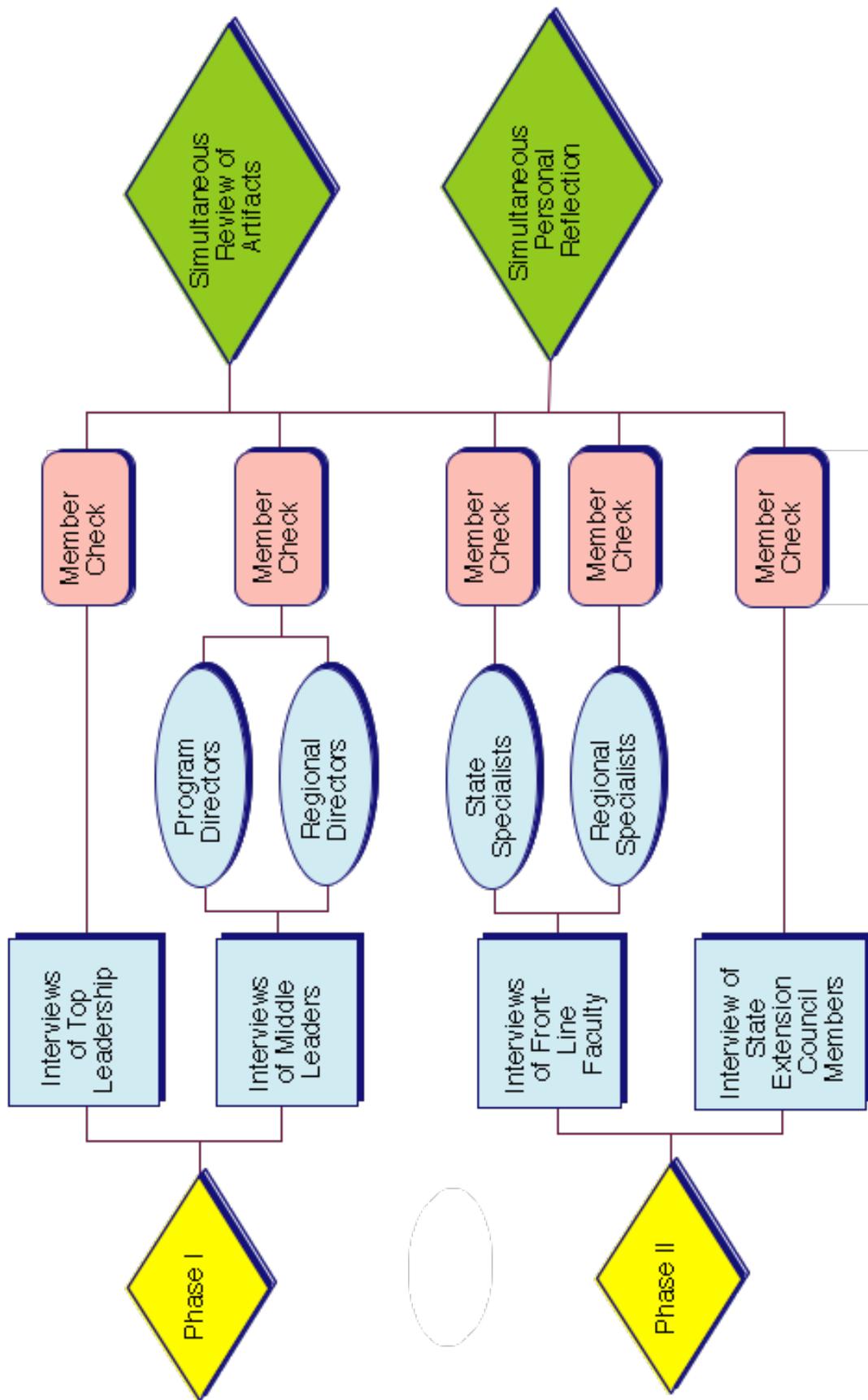


Figure 3. 1. Phases of the study

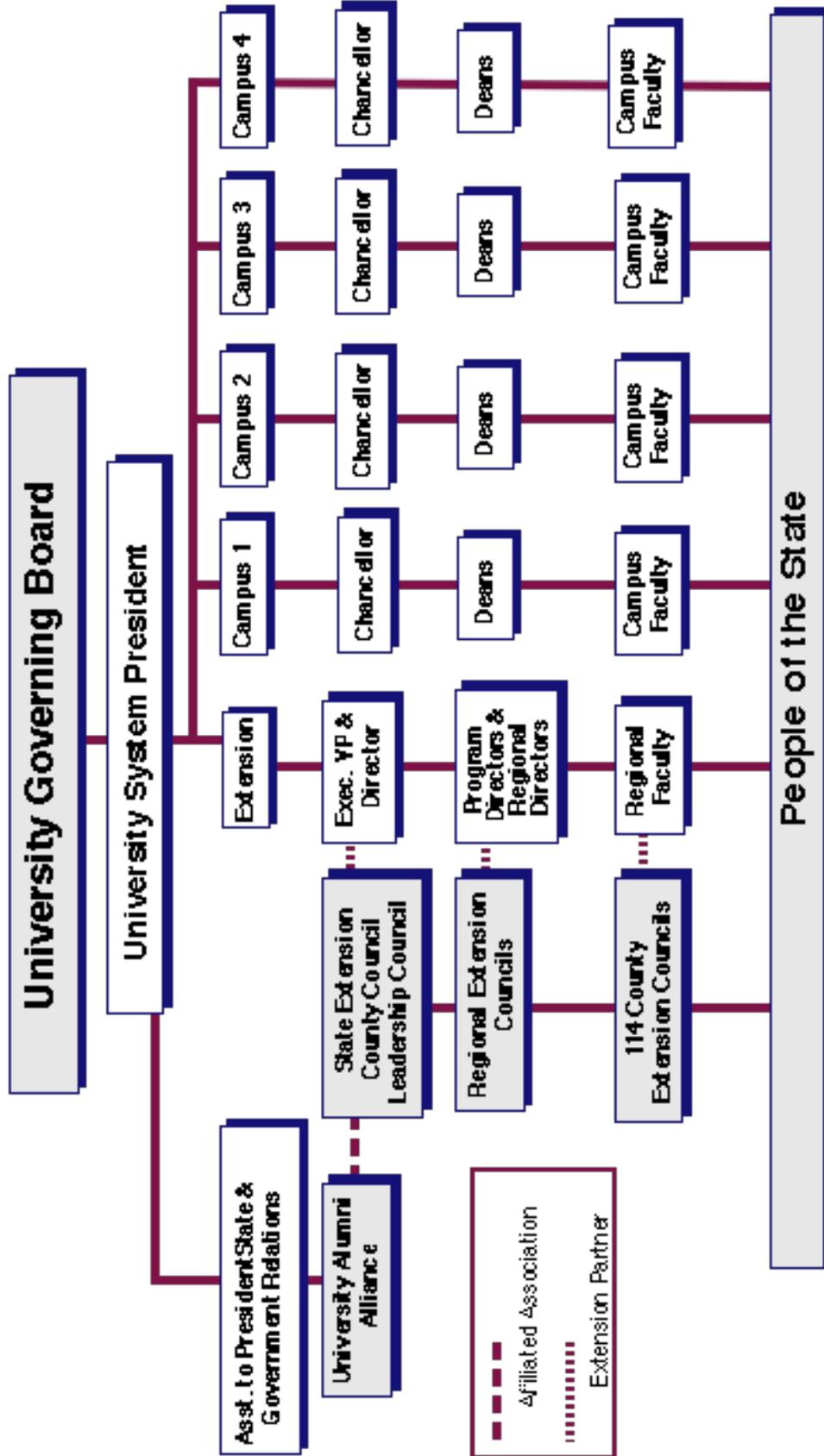
Regional Directors and Program Directors

All eight RDs were interviewed as were five of six PDs and associate PDs. As I held the position of the remaining program director, I was necessarily excluded. I had worked in a collegial role with the other middle leaders and did not have positional authority over any of them.

Top Leadership

This study was conducted during an organizational transition after consolidation of the system functions with the flagship campus of the multi-campus system. Figure 3.2 provides the official organizational chart for the organization (from the organization's website) prior to the consolidation which officially ensued five months prior to the launch of this study. The key top leadership at the time of the study consisted of the director, associate director, fiscal director, and others who gave leadership to specific cross-organizational functions. Figure 3.3 portrays the organizational chart at the time this study began (also from the organization's updated website). Appendix A provides additional detail for the current organizational chart.

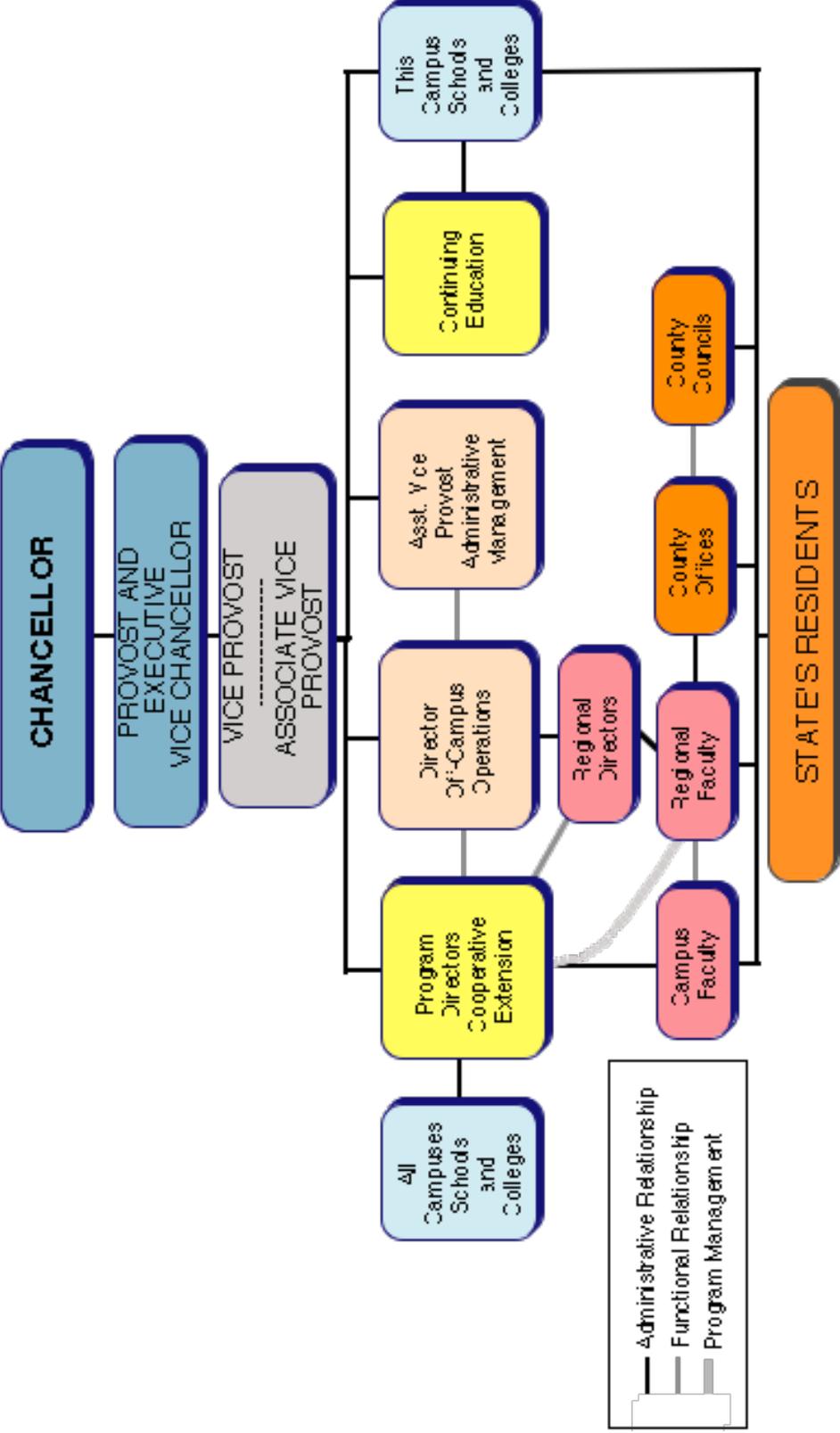
Top leaders interviewed individually included the interim director/associate vice provost for extension, the assistant director/vice provost, interim director of field operations (a former RD) as well as the former director, former associate director, former director of communications, and an administrator who dealt with a variety of cross-organizational issues. Table 3.1 provides a summary of top leaders interviewed. As Table 3.2 indicates six of the top leaders interviewed were female and two were male. As Table 3.3 shows, these leaders had varying levels of tenure in their Extension employment in this state, ranging from 5 to 32 years.



Note: This chart was copied from the organization's official website in July 2003. Specific references to the state have been removed.

Figure 3.2. Extension organizational chart prior to January 2004 consolidation.

EXTENSION AND CONTINUING EDUCATION PROGRAMS



Note: This chart was copied from the organization's official website in July 2004. Since January 2004, the organizational administration had resided within the administrative structure of the flagship campus for Extension.

Figure 3.3. Extension organizational chart at launch of study.

Table 3.1

Top Extension Leaders Interviewed

	Leader Prior to Consolidation	Leader after Consolidation
Interim Director and Assoc. Vice Provost		x ¹
Assistant Director and Asst. Vice Provost		x ¹
Field Operations Director		x ²
Fiscal Director	x	x
Communications Director	x ³	
Former Director	x	
Associate Director	x	
Other Administrator	x ⁴	

¹ This person had been top leader of Extension at campus level versus system.

² Prior to transition, this person was a regional director (middle leader) prior to transition.

³ This person was still in a leadership role, but had become part of a communications team.

⁴ Another former member of the executive team. This person was still in a leadership role, part of which had not been redefined at the time of interviews; however the position was not part of core administrative team.

State and Regional Specialists

In the cooperative extension service, the front-line employees are those with statewide or regional responsibility who develop and deliver programs and services. Those who have statewide responsibilities are campus-based faculty generally known as *state specialists*. They often hold the title of assistant, associate or full professor; and frequently hold a joint research and/or teaching appointment in conjunction with an extension appointment. Regional faculty, paraprofessional educators, and secretarial

support are housed in county offices across the state and interact directly with RDs and PDs. Regional faculty, known as *regional specialists*, hold masters and doctoral degrees and supervise the paraprofessionals who have varying levels of post-secondary education. Regional specialists have reporting responsibility to both RDs and the PDs. For the purpose of this study, the front-line employees interviewed were limited to a sample of state and regional specialists (each of which is considered faculty by the institution).

Table 3.2

Participant Gender by Organizational Position

	Top Leaders	Program Directors	Regional Directors	State Specialists	Regional Specialists	State Extension Council
Females	6	2	3	14	17	2
Males	2	3	5	8	8	9
Total Participants	8	5	8	22	25	11

Selection of state and regional participants who had interacted regularly with RDs and PDs was determined partly through the descriptions and examples provided by top leaders and RDs and PDs as they described the role of RDs and PDs in fostering organizational learning. For additional selection of members to participate in focus groups in order to reach saturation, I used snowball sampling (Bogdan & Biklen, 1998). These additional participants were identified on the basis of recommendation by middle leadership and top leadership. The director of new specialist orientation also assisted in providing suggestions for a diverse mix of faculty by length of employment. Finally, I searched the web-based directory to add further participants on the basis of location (for regional specialists) and program category. The selection of regional and state specialists took into account representation across the program and regional areas, (excepting the

program area that I direct). Consideration was also given to representation regarding length of employment with the organization, involvement in special projects or recognition for engagement in innovation. Those selected did not serve in a position that was evaluated by me in the normal line of their work.

Table 3.3

Years of Employment by Organizational Position

	Top Leaders	Program Directors	Regional Directors	State Specialists	Regional Specialists
Less than 5 years	1	1	2	3	7
5-10 years	2	0	0	6	8
11-15 years	1	1	0	5	4
16-25 years	3	1	3	4	6
Greater than 25 years	1	2	3	4	0
Total Participants	8	5	8	22	25

Note. Years of employment in Extension in this state at midpoint of interview time frame.

Tables 3.2, 3.3, 3.4, and 3.5 provide details regarding faculty affiliation by program area, gender, length of Extension employment in this state, and regional location (for regional specialists). All program areas were represented by state and regional faculty participating. Likewise all regions were represented, though not evenly. In the case of some regional specialists, they had worked in more than one region in the past five to ten years.

Table 3.4

State and Regional Specialist Participation by Program Category

Program Category	State Specialists Invited			Regional Specialists Invited		
	Participated	Declined	Schedule Conflict	Participated	Declined	Schedule Conflict
Business Development	3	1	1	6	1	0
Human Environmental Sciences	6	0	0	6	2	1
4-H Youth	4	1	1	5	2	2
Agriculture & Natural Resources	9	6	0	8	1	1
Total	22	8	2	25	7	3

In addition, Figures 3.6 and 3.7 indicate the numbers of faculty who participated, declined to participate (or did not reply to the invitation), and who were willing but unable because of a schedule conflict (including family illness, leave, etc.) of those invited to participate. Several who declined indicated the full schedule they had at the time as their reason for decline. Others did not provide a reason.

Extension Council Members

Members of the state extension leadership council, which is the organization of local extension councils, were included in this study as they are key stakeholders in Extension programming and represent the local community. In this state, county extension councils are state statutory bodies whose members are elected and appointed to oversee local programming, allocate and handle county funds appropriated to local extension offices, and provide funding for local secretarial support staff. Regional council

members serve on a representational basis from each local council in the region and meet on a regular basis with RDs. Local and regional councils also interact with PDs but with no specific regularity or frequency.

Table 3.5

Regional Specialist Participation by Extension Region

Regional Specialists Response to Invitation	Extension Regions							
	A	B	C	D	E	F	G	H
Participated	3	3	4	1	5	3	3	3
Declined	1	3	0	1	0	0	1	1
Conflict	0	0	0	0	0	1	1	1
Total Invited to Participate	4	6	4	2	5	4	5	5

The extension council members interviewed served on the state extension council, the state association of county extension councils, which has an official voice and representation with administration statewide. Each of these members was active in their counties and represented a regional council or urban area of the state. They, therefore, interacted on a regular and more frequent basis with RDs and PDs than the average county council member. They were chosen for participation for this reason and because they were more readily accessible for a focus group interview. This focus group consisted of 10 of the 11 members (one vacancy existed at the time) plus the recent chair of the state extension council (who was no longer a member).

Data Collection

Data collection for this case study was guided by qualitative methods outlined by Bogdan and Biklen (1998), Glaser and Strauss (1967), Krueger (1998b, 1998c), Krueger

and Casey (2000), Miles and Huberman (1984), Merriam (1998), Morgan (1998a, 1998b), and Strauss and Corbin (1998). The data were collected primarily through interviews and corroborated through participant reflections and a review of organizational artifacts. These artifacts included meeting minutes and agendas, reports, web sites, plans, and program materials. Most of the data collected was qualitative; however, quantitative data that existed within the organization that were pertinent to this study were included in the review of organizational artifacts. As the researcher conducting this qualitative case study, I was the primary instrument for the collection of data. A detailed description of the data collection methods follows.

Individual and Focus Group Interviews

As indicated earlier, the study was conducted in two phases, a combination of individual and focus group interviews were conducted. Each participant received a letter of invitation (See Appendix B) along with a letter of approval from the interim director of Extension (See Appendix C). After agreeing to participate, each received a letter of confirmation repeating vital information and containing a consent form (See Appendix D.) Figure 3.4 provides a summary of the groups interviewed, types of interviews, and timeline for the study. Following is a detailed description of the interview process.

Phase 1: Exploration of the perspectives of top and middle management. Phase 1 focused on developing a holistic perspective of the organization and organizational learning as well as role of the middle leaders from the perspective of top leadership and middle leaders. Phase 1 began with one-on-one, face-to-face interviews conducted with the top leaders regarding their perceptions of the roles of RDs and PDs. Top leaders interviewed were the interim director/associate vice provost for extension, the assistant

director/vice provost, interim director of field operations (former RD) as well as the former director, former associate director, former director of communications, and a program director who dealt with a variety of cross-organizational issues (See Table 3.1). These leaders are the people who interacted directly and frequently with middle leaders. Structured and semi-structured interviews were conducted in the offices of participants, audio-taped, and transcribed. One interview was conducted in the home of a former leader who had just moved to other employment. Each interview was 90 minutes long. The interview questions were tested and refined with state and regional specialists from my program area as they were not included in the study. The interview questions can be found in Appendix E.

Extension Groups Interviewed	PHASE 1			PHASE 2		
	Top Leaders	Program Directors	Regional Directors	State Specialists	Regional Specialists	State Extension Council
Number of Participants	8	5	8	22	25	11
Type of Interviews	Individual	Individual	Two focus groups	Four focus groups and one individual	Five focus groups and one individual	One focus group
Time Span for Interviews	July	Late July to Early September	Mid-August to Mid-September	Mid-October to Early November	Mid-October to Early November	Early October
Representation	Current and former top leaders	All except Community Development	All	All program areas except CD; included several other campuses	All program areas except CD; all regions of the state	All invited
Mode	Face-to-face	Face-to-face	Face-to-face and Centra®	Face-to-face	Centra®	Face-to-face

Note. This multiple category double layer design is based on Krueger and Casey (2000). The number of focus groups conducted with the state and regional specialists was conducted to the point of saturation.

Figure 3.4. Timeline and overview for engagement of participants in the study.

Second, interviews were conducted with middle leaders, the RDs and PDs. These groups were split in order to place participants in homogeneous groups with regard to power and responsibility within the organization and to limit the size to eight or less as suggested by Krueger and Casey (2000). Interviews were conducted with structured and semi-structured questions developed using Krueger and Casey's questioning route that moved from opening, introductory, and transition questions to key questions and ending questions. Face-to-face individual interviews were conducted with the PDs in their offices as schedules did not permit a timely gathering for a focus group interview. The interviews ranged in length from 40 minutes to 90 minutes.

The RDs were interviewed as two focus groups as all were not able to attend the meeting before which the focus group was conducted. The first focus group was conducted face-to-face with five RDs in a campus conference room located in a neutral setting in late afternoon before a dinner meeting. A peer facilitator assisted in recording and guiding the discussion. The second focus group with three RDs was conducted via Centra®, a web-based teleconferencing system, as schedules did not permit another face-to-face opportunity in a timely manner. The advantage of using Centra® over the telephone conference was the additional ability for speakers to virtually raise their hands, step out, vote yes or no, clap, and smile virtually. Both focus group interviews lasted 90 minutes. The interview questions for PDs and RDs are listed in Appendix E. Each of the interviews was recorded via audiotaping for later transcription.

Third, the data and interpretations were shared with both groups for accuracy, a technique referred to as member checking (Merriam, 1998).

Phase 2: Exploration of the perspectives of faculty and extension council members. Phase 2 focused on gathering data from front-line faculty and the state extension council members and exploring examples of organizational learning with regard to the middle leader role. First, as a result of Phase 1, purposeful samples of state specialists and regional specialists were selected. Following Krueger and Casey (2000), focus groups of three to eight specialists were conducted with separate groups of regional and state specialists until saturation was reached. One focus group was conducted with the state extension council members, who numbered 11, as this group was composed of volunteers located from around the state, and obtaining multiple times for participation was deemed to cause additional difficulty for them. This focus group was conducted in a conference room on campus following a regularly scheduled monthly meeting of the council. Two members were connected by telephone conference, which commonly occurred for meetings due to travel time and schedules of these volunteers.

Focus groups with regional and state specialists were conducted using structured and semi-structured questions, in accordance with Morgan (1998a, 1998b), Krueger (1998b, 1998c), and Krueger and Casey (2000) following a similar protocol to that used with the RDs and PDs. The interview questions are listed in Appendix E. Each of the focus group interviews was recorded via audiotaping for later transcription. An outside facilitator assisted in recording and guiding the discussions for one RD focus group, one regional specialist focus group, and the state extension council focus group.

The state specialist focus groups and the extension council member focus group were conducted face-to-face. Focus groups ranged from three to eight participants, and one interview was an individual. Dates were scheduled on the basis of availability of

specialists. All groups were composed of specialists from at least two different program areas. One state specialist and one regional specialist were interviewed individually due to schedule limitations. The interviews were 90 minutes in length and all conducted in a conference room located in a building separate of the normal meeting space for any of those involved.

The focus groups consisting of regional specialists were conducted via Centra® due to travel cost and time limitations of the participants, many of whom worked up to three or four hours' drive from a central location. Conducting the focus group session via Centra® allowed for a more diverse and representative participant base. I deemed these benefits to outweigh the limitation imposed by lack of physical presence and visual contact.

Both regional specialists and state specialists were identified through the interviews in Phase 1 and by reviewing the list of specialists to engage diverse representation among categories, by length of employment, and among the regions for regional specialists. Specialists were contacted and invited to participate via an e-mail letter, which included a letter of endorsement for the study from the director of Extension. E-mail was the preferred method of communication within the organization. A second invitation was sent to those from whom no reply was received. If no reply was then received, the lack of response was considered a decline to participate. Several later replied that they had been on special leave and were noted as having had a schedule conflict.

The data were shared with participants from each group for accuracy, following Merriam's (1988) member checking method. In addition, a summary of findings from the

study was also shared for comment. This also provided the opportunity for individual follow-up for clarification and/or additional information.

All focus group and individual interviews were recorded with explicit written permission of the participants and an explicit understanding that this study was not an evaluation of middle leaders. Signed and informed consent for participation was also obtained from participants prior to participation. These procedures were conducted in accord with University of Missouri-Columbia Institutional Review Board's policies and regulations for engagement of human subjects.

Artifacts and Documents

The third type of data collection occurred concurrently with both interview phases of the study. This involved obtaining artifacts (Bogdan & Biklen, 1998) that provided indication of organizational learning and the methods used by PDs and RDs to promote organizational learning. The artifacts of most interest were the official documents, annual reports, web pages, and meeting minutes. Such artifacts also included presentations, personal communications, program reports, and planning documents. As a member of the organization, I had access to many of these official documents which were posted electronically. Others documents were requested during or following interviews.

Researcher Reflection

During both phases of the study, I recorded my reflections as a participant in various meetings and events (Patton, 1997, 2002; Bogdan & Biklen, 1998; Merriam, 1998) as an additional means for corroborating data. My primary role in attending meetings was one in which I was an active participant, as opposed to a participant observer (Merriam, 1998) or an ethnographic observer (Lofland & Lofland, 1995). As a

program director, I was a regular participant in monthly meetings that involved top leaders with RDs and PDs. In addition, I participated in informal meetings with RDs and PDs (including informal biweekly breakfast meetings with fellow PDs) and had access to participate in meetings that RDs held with their regional faculty and PDs held with state faculty. This provided an opportunity to reflect on processes that may not have been mentioned as well as to confirm specific processes noted. My interpretations were also informed by my knowledge of the context and culture of the organization. My reading of the literature provided me with a general context from which to write my reflections following meetings in which I participated during the data gathering and analysis. These reflections tended to focus on noting consistencies in actions and strategies identified in the interviews.

Procedure for Analyzing Data

Data collection and preliminary analysis were conducted simultaneously (Merriam, 1998; Miles & Huberman, 1984; Strauss & Corbin, 1998). Ongoing analysis was essential to shaping the focus and direction of interviews in phase two of the study.

After taped interviews from focus groups and individuals were transcribed, they were imported for coding using the nVIVO 2 software package. Coding followed the protocol for qualitative research outlined by Bogdan and Biklen (1998), Miles & Huberman (1984), and Strauss & Corbin (1998) and following procedures outlined for use of nVIVO by deSilvana (2005). A “start list of codes” (Miles & Huberman) was generated on the basis of the research questions. While using these start codes, open codes was also conducted to allow for emergence of new information in the data analysis

(Strauss & Corbin). These codes included setting/context, definition of the situation, perspectives, process, activities, events, and strategies (Bogdan & Biklen).

After initial coding was conducted using the start codes and open coding (Miles & Huberman, 1984; Strauss & Corbin, 1998), emergent categories were selected. Then axial and selective coding was completed to determine emergent patterns and themes (Merriam, 1998; Miles & Huberman; Patton, 2002; Yin, 2003). Observations, documents, and research memos were examined for triangulation of identified themes. These patterns and themes were reviewed in relationship to the research questions in order to develop explanatory concepts and infer specific processes facilitating organizational learning. The findings were compared with organizational knowledge creation processes (Merriam; Strauss & Corbin) reported by Nonaka and Takeuchi (1995); Von Krogh et al. (2000, 2001); and Nonaka, Reinmoeller, et al. (2000), and others.

Credibility, Consistency, and Trustworthiness

Bogdan and Biklen (1998), Maxwell (2002), Merriam (1998), Miles and Huberman (1984), and Patton (1997, 2002) indicated the importance of ensuring credibility, consistency and trustworthiness in qualitative studies. This design included triangulation of data, peer coding, presentation of transcripts for member checks, development of an audit trail, and clarification of the researcher's biases as means to address the issues of credibility, consistency, and trustworthiness. A discussion of each follows.

Triangulation

Triangulation was accomplished through the use of multiple sources of data and development of a systematic or "holistic understanding" of the situation (Bogdan &

Biklen, 1997; Merriam, 1998; Miles & Huberman, 1994). The interviews of top leaders, RDs and PDs, state and regional specialists, and state county council members provided the primary means of triangulation, rendering a systematic and deeper understanding of the organizational learning and mechanisms for fostering it employed by the PDs and RDs in the organization. The documents, artifacts, and participant reflections also corroborated the interview data. The knowledge of the context that I brought into the study augmented my ability to view the phenomenon of organizational learning and middle leader role in a holistic manner (Mathison, in Bogdan & Biklen).

Peer Coding and Examination

The use of an outside co-facilitator for several focus groups provided a second opinion against which to check observations and analysis of the focus groups. In order to counteract biases on my part as a PD (middle leader) in the organization, an outside peer (fellow doctoral student) also separately coded a random set of transcripts representing 10 percent of the transcripts.

In determining passages for peer coding, I chose 10 percent (or 50 pages) of the transcripts from interviews through selective randomization to ensure a cross section of types of interviewees as well as interview questions from the 11 overall basic questions posed. For the 8 *top leaders*, I randomly selected 8 of the 11 questions asked, and then randomly chose from that the selections of questions for each interview. In each interview, the selection for peer coding began with the selected question and continued for 1.25 pages from that point, even if the passage led into the next question or questions asked. Similarly, for the 5 *program directors*, I again randomly selected 5 questions from the list of questions and then randomly assigned those questions to each program director

and proceeded in the same way. I followed this basic procedure for each category of interviewees. If there was a question I didn't ask in that interview or set of interviews (e.g., participants had been addressed the issue), I picked another question from the list. Figure 3.5 provides a visual summary of the breadth of the passages selected across the interviews and basic interview questions.

Interview Group	No. Pages Selected per Group	No. of Interviews per Group	No. Pages Selected per Interview	Basic Interview Questions Sampled										
				1	2	3	4	5	6	7	8	9	10	11
Top leaders	10	8 individuals	1.25	x				x	x	x	x	x	x	x
Program directors	10	5 individuals	2		x	x	x ¹	x		x		x ¹	x	
Regional directors	10	2 focus groups	5				x ¹	x				x ¹	x ¹	x
State specialists	10	4 focus groups + 1 individual = 5	2	x			x ¹	x	x ¹	x	x	x ¹	x ¹	x
Regional specialists	10	5 focus groups + 1 individual = 6	1.6	x ¹		x ¹	x ²	x	x	x		x	x ¹	x
State extension council	2	1 focus group	2			x								
<i>Total</i>	<i>52</i>	<i>27</i>	<i>N/A</i>	<i>3</i>	<i>1</i>	<i>3</i>	<i>3</i>	<i>5</i>	<i>3</i>	<i>4</i>	<i>2</i>	<i>5</i>	<i>5</i>	<i>4</i>

¹ These were questions addressed as a result of another question not appearing in the interview for which selected or because of inclusion following the selected question before the page limit was met. Note that questions were not always asked in the same order but the appropriate question identifier (question number) was consistently used.

² This question was not asked during the particular interview. Sometimes questions were addressed in the context of another question.

Figure 3.5. Selection of excerpts of interview transcripts selected for peer coding.

Selected passages for peer coding were copied into a document labeled by interview group and question number. I provided a printed summary of the study, the basic research questions, and the selected transcripts by interview group to the peer

coder. After coding was completed, we met and compared results of initial coding by grouping. Eighty-seven percent congruence occurred between my coding and that of the peer coder.

Member Checks

Maxwell (2002) noted the concern of most qualitative research with descriptive validity, or the factual accuracy of accounts presented by the researcher (what was seen and heard). To ensure greater descriptive and interpretive validity, transcripts were shared with interviewees via e-mail to determine accuracy. After completion of the analysis, a summary of the findings was also shared with participants via e-mail to verify the validity of the findings with regard to their experiences. In addition, the analyses were discussed with RDs and with PDs each in a group setting. The peer facilitator also concurred with the summary of the findings that was shared with participants. These practices were consistent with Merriam's (1998) approach to member checking.

Audit Trail

Miles and Huberman (1984) and Merriam (1998) cited the importance of consistency in providing reliability in qualitative research. Describing one's research procedures clearly enough that others can reconstruct and corroborate them and conduct secondary analyses constitutes the creation of an "audit trail." A personal journal was kept to record systematically the data sets used, procedural steps followed, decision rules followed in analysis, analysis operations and conclusions drawn (Miles & Huberman, Merriam). The use of nVIVO software for coding also provided a means for tracking memos, reflections, and coded data. As the analysis was conducted, the journal was shared with my dissertation advisor as means of also maintaining consistency.

Researcher's Biases

Merriam (1998) also noted that clearly establishing one's biases as a researcher is essential to the creation of validity for the study's findings. I noted and reflected on my biases and assumptions throughout the conduct and analysis of the research.

Initially, I was aware that I clearly entered with some biases and assumptions as one who had worked within the organization for the nearly 20 years. I also approached the study with a strong belief about the importance of Extension operating as a learning organization. I approached the study as a PD (middle leader) with significant experience as a state specialist. My bias as a middle leader had the potential to complicate the process of viewing the wider organizational picture from the perception of regional and state specialists, extension council members, and top leadership.

As I embarked on this study, I assumed that the state extension service reflected some aspects of a learning organization in some contexts but not in others. I also assumed that PDs and RDs were fostering organizational learning, wherever the organization fit on the hypothetical continuum of operating as a learning organization. Finally, I assumed that becoming a learning organization was desired by top leadership.

Transferability

In the interest of also improving the degree of transferability of the findings from this study (Merriam, 1998), I have sought to provide rich, thick descriptions so that others interested in transferability have sufficient information upon which to base their judgment. The description of the organization and the activities of the leaders will be presented in the findings so that others can determine to what extent these represent typical situations. The comparison to findings of the previous researchers in the business

context and other cultural contexts will also offer a clue to transferability of the findings of this study as well as the previous studies.

Summary

The purpose of this qualitative exploratory case study was to examine the roles of one state's cooperative extension service middle leaders (regional directors and program directors) in organizational learning. The design for the study, processes for data collection, and methods of analysis have been discussed. This discussion has also included the ways by which credibility, consistency, and trustworthiness were addressed.

CHAPTER 4

RESULTS

Introduction

In this chapter, the results will be presented from the qualitative exploratory research that examined the nature of organizational learning and the role of middle leaders in fostering organizational learning in the cooperative extension service of a large Midwestern land grant university. The chapter is divided into three parts. The first provides additional detail to the organizational and environmental context in which the study was conducted, as the participants and the settings in which they were interviewed were discussed in Chapter Three. The second part answers the first research question: What is the nature of the organizational learning occurring in Extension as perceived by middle leaders (regional directors and program directors), regional and state faculty, regional extension council members, and top leadership? Section three answers the second research question: What are middle leaders (regional directors and program directors) doing that fosters or inhibits organizational learning in Extension, as perceived by themselves, regional and state faculty, regional extension council members, and top leadership? The chapter concludes with a summary of the findings.

Part I: Context

This study occurred during a time of transition for the organization. Seven months prior to the commencement of interviews, the organizational leadership and structure was consolidated by the president of the university. The organizational structure shifted from being led at a multi-campus system level to one led on the campus where most of the Extension operations existed. The former structure had also included a leadership

structure on the primary campus that encompassed continuing education programs for that campus.

With the commencement of the consolidation, an interim director was charged with conducting the transition and assumed leadership for Extension as well as the primary campus' continuing education program. An interim director of field operations was appointed to deal with the regional operations, support regional directors and functions of extension councils. New organizational charts had recently been completed (as shared in Chapter Three and Appendix A). Most working task groups appointed by the interim director had completed their work and recommendations. The interim director, associate director (formerly the campus associate vice-provost for extension and continuing education operations), the interim director of field operations, and the chief financial officer (formerly the same at the system level) were functioning as the top leadership team.

Approximately two months prior to the beginning of the interviews, the entire organization of faculty and staff had come together for an "annual" conference after a hiatus of nearly two years. The interim director had announced actions on a number of the recommendations submitted. Other aspects of the consolidation were not complete. Two of the five program directors (PDs) had been located at the system level, and were still involved in negotiations for alignment within a college on the campus. The other campuses were somewhat skeptical about their relationship and position in the new structure. Some aspects of the employee benefit systems, accounting, and hiring practices were still being worked out. In announcing the consolidation, the campus provost had strongly supported Extension and indicated a desire for strengthened academic linkages

for regional specialists (who bear an academic title); however, no details had been addressed. The transition had certainly begun but was still underway throughout the interviews.

The organization had also weathered several years of reduced state funding as part of cuts to higher education, decreased discretionary state revenues, and an economic down turn. Approximately 10 percent of the state specialist positions had been eliminated from the books and approximately 50 regional specialist positions had been held vacant during the previous two years. The Extension faculty and staff from across the campuses and state had just come together for the “annual” conference six weeks prior to the launch of the study, after having not met for nearly two years. The study’s launch coincided with the beginning of a new fiscal year, one in which the funds committed by the state had remained steady versus declining. The mood and morale at the time was generally upbeat.

Consequently, the context for this study was one entwined with change at a specific point in the organization’s history. As the findings relate, this context framed perspectives of the participants and shaped the participation for top leadership as a broader than normal group comprising both past, present, and combined positions. The context was especially evident in interviews with top leaders, who generally had a good grasp of either the former system perspective or the former campus perspective. Two former top leaders were no longer affiliated with Extension in this state. But for the rest who were still affiliated with the organization, each was working to grasp the new “bigger picture” and understand the whole. Regional directors (RDs) and program directors (PDs) were also grappling with their roles in relationship to each other in view

of the new structure. This context of change also provided an interesting window in which to view organizational learning. As several middle and top leaders later related, the change catapulted the organization into a needed learning mode for which it was ready. In this context of change of the structure and funding, we turn to the nature of the organizational learning as perceived by the top leaders, middle leaders, front-line faculty, and Extension council members in the organization.

Part II: Nature of Organizational Learning

The first research question addressed by this study was: What is the nature of the organizational learning occurring in Extension as perceived by middle leaders (RDs and PDs), regional and state faculty, regional extension council members, and top leadership? To address this question, participants were asked to define organizational learning. Top leaders, RDs, and PDs were asked to describe the general nature of learning that occurs in the organization. All participants were asked to share examples of organizational learning that they had observed. In analyzing the nature of the organizational learning in this state extension organization, I will look at the definitions shared, the descriptions that provide insight into the kind of learning that was occurring, and the barriers to organizational learning that were discussed by interviewees.

Definitions of Organizational Learning

The definitions of organizational learning were as varied as those found in the literature. Definitions ranged from a focus on the process of the creation and sharing or transferring of knowledge to individual learning in the organization versus the collective learning of the organization. These different perspectives will be presented along with the themes that emerged related to the purpose of organizational learning and the type of

learning that is occurring. I will also discuss the differences in perceptions among the various groups interviewed in the organization.

Organizational Learning as Process

Common to nearly all of the definitions of organizational learning was that it is a process, regardless of its purpose or nature. One notable and succinct comment of a top leader highlighted the process: “Organizational learning is how we become and grow.” One of the state extension council members also captured the essence of a process when he said, “[I]t’s not what we learn; it’s how we learn.” Process by its nature infers development, as related by another top leader when she said, “I will use organizational development interchangeably with organizational learning because I think learning is not an end in itself. I think learning is one of the steps toward development, into the development process.” Various participants noted the organizational learning process to be “iterative,” “ongoing,” “dynamic,” and “progressive,” and the organization to be “in a constant state of evaluation.” One top leader said, “You never really get there, but you do work toward it.” Other aspects of this process will be described as I further share the findings.

Some participants used the terms organizational learning and learning organization interchangeably. For example, one RD noted, “The *organizational learning* or *learning organization*, I’m probably confusing that as much as anything. Is it tomato [tah-mae-toe] or tomato [toe-mah-toe]?” Most of the top leaders and the RDs—but not all—, and a few regional and state specialists used the terms interchangeably in their responses to questions about organizational learning. Only a few times did a PD use the term learning organization.

Individual versus Collective Learning

Participants viewed the aspect of organizational learning as an individual versus collective effort across a continuum that spanned both perspectives.

Individual learning. Participants shared that organizational learning is premised on the learning of individuals. Some saw organizational learning only in the context of individual learning. As one regional specialist noted: “You’re learning from each other regardless of what your title is whether you are an assistant, an administrator, a specialist, or what not.” A state specialist highlighted organizational learning as “how information is transferred within the system from individual to individual, or from campus to field staff, or within a region.” Only two individuals of the total 79 persons interviewed—a regional specialist and a state specialist—indicated that they thought organizational learning was the system of professional development to support individuals within the organization. This reflected a fairly narrow view of organizational learning as an individual endeavor occurring within the organization. However, these two participants capably discussed other questions relating to the broader aspects of organizational learning during the rest of their interviews.

Collective or shared learning. Most participants saw and noted linkage of the individual’s learning to the collective or organization as a whole, as highlighted by one regional specialist, “I believe learning occurs at the individual level. And the organization, . . . either benefits or is hindered by the behaviors and the changes that occur as a result of learning that goes on at the individual level.” This linkage to organizational learning was further articulated by a PD who said:

It isn’t really organizations that learn; it’s individuals within the organization who learn. And they change behavior and that sort of ripples

out among others in the organization. . . . I think what happens is collectively people gain new knowledge and insight, and then they apply it to help the organization. So, what I see as organizational learning is sort of a critical mass of understanding and learning within the organization to move forward.

Also representing this point of view was another state specialist who said,

For me, organizational learning means what individuals learn and then what, how, or if they transfer that to the organization. So, I think of it in terms of being made up of individual learning, but it's really about something that is larger than that. It's about what was transferred to the organization in the way of processes or procedures or shared knowledge.

Others, in a variety of different positions identified organizational learning as “a group learning versus just an individual level of learning.” For example, one PD indicated, “I believe organizational learning is working together in a group to define where the group wants to go, how we process through things.” Another PD saw it as “the process of going through the team to develop and identify how we ought to operate or implement something or evaluate something or set up a structure of something, that's called learning.” A regional specialist noted the gathering of “people who were involved with that challenge at every level together and then process[ing] our way through whatever problem we were dealing with or issue we were looking at and gather information.”

Collaborative learning. The belief that organizational learning is a shared learning or group experience was further noted by discussions of collaborative learning or co-learning. This theme emerged from different individuals within the organization and has had some discussion within the organization in the past few years, as noted in documents reviewed. One PD articulated this concept that permeated the way of operation, albeit not consistently across the organization:

You know, organizational learning comes back to the idea almost 15 years ago we had a fellow come in and do a workshop for us on [those we teach and work with] as resources. And he said we can look at [them] as objects we do things to or as partners we do things with. And our number one goal is to do things with people. And I see that, as Extension has to take that philosophy, that it's always about the partnership and the collaboration. And whether it is with customers, citizens or whether it's relating to each other as professionals, it's that collaborative process. We are all resources, we are all learners and contributors, and the more we can model that with the people that we work with—whether they are employees or, or people that were trying to serve—that will foster the organizational learning. That whole philosophy and that attitude that we are partners in the process and not recipients or objects that need to be manipulated. And I think Extension in our state does a pretty good job of that. I think we're stronger in some places than in others, but we try to model and live that philosophy and that promotes organizational learning.

Others noted that organizational learning is occurring on multiple levels that include the individual level, a variety of groups or teams, and even the whole organizational level. For example, one state specialist talked about, "I don't think it needs to happen just it at the local level. I think it needs to happen all the way up." Similarly, a top leader noted:

I think organizational learning happens at a number of levels in different settings. I think one of them is the individuals have to take some responsibility for organizational learning, their contribution, and their role in organizational learning. As professionals I think it's incumbent upon us to assume that role and find out what those areas are that we both need to improve and we all need to come up with other skill sets. Beyond that, I think it happens at the other extreme at the total organizational level, which is much more complex in terms of how you involve people and in what settings do you involve people.

Some, like this state specialist, related organizational learning as a cross-disciplinary whole organizational phenomenon:

For me, organizational learning, if we're using in terms of Extension, would be from the whole organization of Extension. How does a whole organization learn from different situations? It could be staff development, it could be programming, or it could be a variety of different things. But for me organizational learning would be our whole organization.

Regardless of the range of perspectives on the individual versus organizational capacity for learning, one state specialist pointed to the reality of organizational learning in saying the learning experiences have to “have relevance to the individual because I tend to hit the delete button if it doesn’t apply to me.”

Purpose of Organizational Learning

The definitions of organizational learning highlighted different perspectives regarding the purpose and often multiple purposes of organizational learning. The key purposes for organizational learning in Extension that emerged included carrying out the organization’s mission, dealing with change (imposed internally and externally), and maintaining the organization’s culture and history. The latter was closely linked to transferring knowledge within the organization.

Carrying out mission. Three of the top leaders talked explicitly about organizational learning as a function of carrying out the organization’s mission. For example, one noted, “Organizational learning is developing an understanding of where the organization itself sits and where the people within it sit and how they accomplish their own mission.” Another noted that organizational learning began with everyone understanding the mission and vision of the organization. Some regional and state specialists echoed this concept. Several regional specialists talked about the function of organizational learning as one of getting “us all on the same page.” Another regional specialist pointed to the role of organizational learning as one of creating consistency within the organization. At least one PD and one state specialist also specifically addressed the issue. The state specialist put it this way:

To me it [organizational learning] would also be the processes and procedures that the organization uses to respond to challenges or to the mission of the organization. I think it is all encompassing. It's the processes and procedures that the organization uses to accomplish its mission both internally and externally.

Another state specialist summed up well this purpose for organizational learning in these words:

The first thing I think about with organizational learning is . . . to gain an understanding and an appreciation of the mission, the goals, and the objectives of that organization and find out why that organization exists and what that organization is all about and what their role is in that organization.

The state extension council members provided a different twist to this concept of carrying out the mission via organizational learning. They concurred that organizational learning comprises the learning from community members about their needs as a critical feature to carrying out the organization's mission to meet the needs of the state's citizens. A regional specialist voiced a similar connection between organizational learning and the mission in saying,

I just think the other part of it might be the learning, whether it might be a leader of staff, a person like the regional director or something like that, but learning from one another within the organization in order to meet the needs of our communities.

Beyond the two individuals who specifically thought organizational learning was professional development within the organization, others commented on organizational learning as part of one's professional learning and indicated that professional development is linked with organizational learning. If professional development is seen as a mechanism for maintaining ability to carrying out the organization's mission to educate, then this also lends to the understanding of organizational learning as part of carrying out the organization's mission.

Dealing with change. Another significant purpose, which also emerged frequently from various levels in the organization, was that of organizational learning in order to deal with change, both internally and externally generated. Those discussing change reflected a systems perspective, as did this state specialist who said:

When you first said that term [organizational learning], I thought of change. How does an organization deal with change, whether that change is professional development needs of the staff, whether there's change in community trends, etc.? How does Extension provide services and support for that? And I also think of systems . . . in terms of how open or closed is the system in dealing with information and change.

Another state specialist indicated,

Organizational learning means how our organization as a whole learns how to deal with the climate of the times, like 2004, and the changes within the university itself. So it's an ongoing learning process. And you start organization learning at some point as you look at how you can change.

One regional specialist articulated this view of organizational learning well when she said:

[O]rganizational learning is exactly what it says. It's how an organization learns, that knowledge that it actually gains. It could be either externally or internally. The knowledge that it gains has to create a change, or sometimes it may keep things the same. The organization takes that information and looks over it to see if there is a need for change or anything that needs to be done within the organization.

Several top leaders addressed change specifically as the purpose of organizational learning. Again they were aware of the external and internal dynamics. One said,

Organizational learning means to me that as an organization, we are constantly improving and growing and some of that is going to be internal and some of its coming from external. There isn't a real set path for what organizational learning might be because the environment is constantly changing.

Another highlighted the same aspects of the external learning when she noted, “We all learn from each other, we learn from the partners that we have. We learn from the various professional organizations that we’re involved in.”

Maintaining organizational history, culture, and institutional memory.

Organizational learning was defined by several participants representing the various groups in the study as a mechanism or a structure for maintaining institutional memory.

One state specialist commented, “I would see it as some kind of mechanism that maintains the history and the continuity of the organization, and so you don’t lose past lessons as you move forward.” One state specialist said,

I think probably one of the ingredients of success of that organizational learning is having some kind of mechanism that captures that learning over time so the learning doesn’t just reside with individuals. It is captured within the organization. So as individuals change positions, that learning is still able to be utilized throughout the organization.

RDs, at least one PD, and top leaders reiterated this same concept. Only a few people focused more on the concept of knowledge management systems versus the generic process of transferring and maintaining knowledge in the system. This concept of organizational memory was closely linked the concept of transfer of knowledge.

Transfer of learning and knowledge. One state specialist indicated organizational learning is “about what was transferred [from individuals] to the organization in the way of processes or procedures or shared knowledge” whether it’s informal, experiential or expert knowledge, or formal written knowledge. A regional specialist noted organizational learning to be the “transfer of information or learning from one level to another.”

The concept of best practices emerged as part of the transfer of learning. One top leader indicated,

I don't think we pay as much attention to it [organizational learning] as we really should because it depends so much on individuals and their expertise or individual learning and their expertise. We have to think about how to capture that for the organization as a whole.

Yet another top leader shared:

I think that we need to share knowledge about what works and what doesn't work. And we need to share knowledge about processes that work. Sharing knowledge about activities is probably not going to work unless relative to what the outcomes are. But if a program achieves results, how that program achieved those results should be shared and should be adapted within the organization. I think it's important to identify models of success within any organization.

Another state specialist espoused this slightly different view, focused on best practices.

This person shared:

Organizational learning is a systematic way in which you communicate what works and doesn't work. And so on more of a structural level, what's in place to share best practices? What's in place so that if you've made a mistake in this program, you don't want to do it again? How do you institutionalize that information and learning that occurs informally/formally so that other people benefit from that particular situation or experience?

Certainly, organizational learning serves multiple purposes, and many people articulated more than one purpose in their definition. One might ask: does learning therefore serve the purpose of the organization? While most people implied that they see organizational learning as a process, which serves to improve the organization, several people reflected that collective learning occurs regardless of whether it improves or disadvantages the organization. One regional specialist indicated:

It may be that the outcomes are positive. It may also be that in the process of making some of these changes in order to mold the organization to the current needs, some of the changes actually end up being negative in the

long run. So, I think it go both directions, but I prefer to think of that learning in a positive way and think of there being positive change, positive movement in response to environmental factors that are ever changing in our society and at a faster, faster rate. To me, that's what organizational learning is. We move forward in response to current needs.

A top leader similarly related that learning can be effective or misguided and can lead to a culture for sharing or a culture for fighting each other. She concluded, "I actually think learning occurs no matter what happens."

Differences in perceptions by various groups. The variation in perception of organizational learning was not distinguished by one's position in the organization. Variation occurred within each of the various groups of interviewees. Certainly top and middle leaders (the RDs and PDs) were very aware of the concept of organizational learning, and it was part of their conscious deliberations and concerns. That was to be expected as the two persons serving in one key top leadership position during the past five to ten years had focused on organizational learning or learning organizations, albeit from different perspectives (Senge (1990) and Hock (1999) respectively). Regional and state faculty varied in their conscious thinking about organizational learning. Those in more technical fields were sometimes less aware of the terminology; however, all were conscious of the need for sharing of learning and information. Another noted variation was that state extension council members' viewpoints represented that of community members served by the organization. Therefore, their definitions tended to be framed from the community perspective. This richness in perspective provided by different people within the organization continued in their descriptions of the nature of organizational learning in Extension.

Nature of the Organizational Learning

The nature or aspects of the organizational learning in this cooperative extension organization have already been depicted partially by the definitions. One key aspect that surfaced was the type of learning. Four different typologies emerged: (a) adaptive versus transformative learning; (b) horizontal, vertical, and multi-directional learning; (c) informal versus formal learning; and (d) content-focused versus process-focused learning. Participants also related in general terms what they had found most effective and least effective toward fostering organizational learning. Also significant was the discussion of learning modes in relationship to the types of learning and what was considered effective for learning. The findings with regard to these particular aspects will further highlight the nature of the organizational learning that was occurring in the organization as perceived by the various groups interviewed.

Adaptive versus Transformative Learning

The first typology for learning which surfaced from the interviews deals with the reactive or proactive extent to which learning deals with change. As noted earlier, participants commonly discussed the concept of organizational learning as essential to dealing with change and survival. Typical of the way participants highlighted the importance of organizational learning was this comment from one of the top leaders:

I would compare it [organizational learning] to when we talk about a business, but not only a business but a community as well. We always say if it's not growing, it's diminishing in a way that it's not acceptable to be stagnant. So to me we are really no different that any other types of entities that exist. It's vital to our survival. I think if we don't continue to learn, we will become extinct. So I guess I would say it is very critical.

However, an organization can merely adapt to influences and changes in the systems and environments around it, or it can proactively analyze its assumptions and premises and

act to change itself and its course. This concept is the foundation that frames the first typology for organizational learning as perceived by the participants in this study in terms of how the organization deals with change.

Adaptive or reactive learning. I have chosen the term adaptive as participants frequently used the word “adapt,” along with improvement and adjustment, in their definitions of organizational learning. Adaptation also reflects a systems perspective, as noted clearly by a PD who said:

That the organizational learns means that the organization is like an organism, like any other thing that learns. And if it's an organism, it should be able to be pliable, flexible, adapt to change. And if an organization can't do that, then it's one that doesn't learn. If it is one that does do that, then it is one that learns. You know, that's what it means to me. I'm very much biased by Senge and those kinds of people in terms of what I have read in terms of organizational learning.

A state specialist also captured this perspective, noting the essence of the learning as “having feedback systems and being able to listen to those systems adjust accordingly.” The ability to change and “evolve into more positive models” was the description from a regional specialist.

This adaptive learning is also one of reaction or adjustment to change. A state extension council member succinctly indicated how we learn, exclaiming, “We react!” Of the examples of organizational learning noted, the annual conference is one that exemplifies adaptive learning. Most participants commented on the shifts that had occurred to provide more content-based training and as one PD said to foster “sharing between the areas of the groups within their academic areas, saying ‘Here are the programs we’re conducting, here’s how we’re operating, here’s what’s successful, and here’s what is working and what is not.’” These shifts had occurred in response to

changes in program training needs and reduced budgets for training. Another person noted how the annual conference had included a session that brought together RDs and continuing education representatives from campus to hold “discussions about how we could work more effectively together, how we could better serve our constituent groups which are the same people” in response to feedback as well as legislators wanting to know what the university had done in their districts.

Other examples included the recent consolidation, the development of a volunteer screening (criminal background checks) process for youth programming, and the new specialist cohort orientation and training. With regard to the recent organizational consolidation, one participant shared the perception that it was a result of adaptive learning, as these words reflected:

All we've done in the academy is move the offices from [one location on campus to another]. It's the same structure, same separation, same issues and now under new leadership. And I when get to the college level here and Extension is viewed as something [the director] is in charge of, not something that we as a college are in charge of. So, to some extent, to give you another example, why are we setting up an office of development for Extension? Why is that not an integrated part... in this college? Why is our development officer sitting here in the college not seeing ... that Extension is part of her expectation, including Extension development-related issues to the field operation?

The volunteer screening process had been developed in response to requirements of funding agencies for grants and contract work. To accomplish this, the PD had drawn in the learning from other states and engaged regional and state specialists, top administration, RDs and the human resources staff. The new specialist cohort training program had made changes to the content and schedule based on feedback from specialists and RDs, but had not changed its basic premise or operation. These are

typical, but certainly not the only, examples of the adaptive organizational learning shared by the participants.

Transformative learning. I have chosen to use the term transformative learning, which entails challenging basic assumptions, questioning the status quo, and as a result changing or transforming some aspect of the organization. The top leaders' concept of organizational learning as a process of becoming and growing and of learning as part of the development process of the organization embraced adaptive as well as transformative learning. One of these top leaders further expounded on the need for transformative learning:

I think we live or die by it [organizational learning]. If the organization learns, we grow. Because the environment in which the University has been is constantly changing. The knowledge base within the University is constantly changing. So for the organization to be responsive, the mission of Extension is to improve the lives of the people. Well, the people's lives are changing and growing and their environments are changing, ours are changing, so it's a constant change. Also there are all kinds of things that happen in organizations related to Extension right now. It's a fiscal down turn.... We have to learn from all the pressures that we have round about us. But in Extension I see it's critical for our survival that we continue that organizational learning. We can't be the way we used to be. We can't think the way we used to think. We can't perform the way we used to perform and expect to succeed. Although as I say that, we still have a great base of history to operate from and part of organizational learning is from history.... But we also have to continue to change.

Most of the top and some of the middle leaders, as well as a few regional and state specialists, articulated a knowledge and awareness of transformative learning as a higher order of learning essential to the survival and growth of the organization into the future. Several of the state extension council members were also adamant about organizational learning in order to change or adapt to change. One articulated organizational learning as:

To take the opportunity to step back and view what is going on from the outside, and look in. To really say to yourself, "I want to step back and I

want to look inside to see what's going on and how we operate because are any of the outside influences mandating that operation? Or is it a totally directed by the inside influences within the organization?"

Several examples of transformative learning were highlighted. One PD talked about the work with e-Extension (a national coordinated initiative to provide a wide array of learning via the breadth and depth of the web and other distance technologies) as an example of transformative learning, noting:

In Extension, there are times, in a large system like ours, where we're trying to be change agents, that we have to take on [and] develop new processes, new structures, new ways of doing business as an organization. One of the things I see, for example, is the challenge that we're looking at with e-Extension. Some folks are very reluctant that this could be a new way that Extension would do business—that, in addition to our more traditional use of direct teaching and information transfer, the web could be a key way that we share it across states.

Another example from a state specialist implied transformative learning in assessing the extent of organizational learning that was occurring when she explained:

I think typically, even though it's not perfect, Extension is set up that it can be a learning organization. I think with some of the changes that they have made in the last year or two years as far as that goes have basically illustrated that it can make changes and it can learn. So, anyway I feel good about Extension as a learning organization. It's not perfect but there are other organizations that are worse.

Similarly, another state specialist noted: "Organizational learning over the last year to me has been the restructuring of Extension and the reorganization of the different layers of administration."

However, perceptions of the extent of organizational learning occurring that represented transformative versus adaptive learning varied. One PD noted differences in perception within the ranks of top and middle leaders regarding the organizational consolidation that had been initiated the prior January. This person cited how two of them

had looked at the consolidation of the organization from different perspectives: “one thinking it was to keep nothing from changing and I thought it was the invitation to change.”

Participants brought several key examples of learning forward from the various levels in the organization. In addition to the references of the recent consolidation or reorganization, examples that were consistently mentioned included the Grass-based Dairy Program as well as several other programs linked to specific academic area, the [Extension] Council Leadership Development Program, and the State Extension Leadership Development Program (described by participants and organizational documents to foster personal and professional leadership development through 16-month cohort experience). Other examples highlighted the successes and the pitfalls alike in some learning efforts undertaken in the past or in progress at the time.

Several common features arose from analyzing these examples repeatedly brought forward. First of all, they departed from the norm and engaged the learners as well as the teachers in learning together, i.e. collaborative learning, to build the program. For example, according the organization’s web-based materials and the reports presented, the Council Leadership Development Program provides training and information to support county extension councils in educational program development and implementation, governance, and membership development. In discussing the learning process that enveloped the development of curriculum and the implementation of training and feedback systems, one RD noted numerous previous efforts to “develop” or “train” councils, which had fallen short. He went on to note what made this effort different and

more successful was questioning the earlier processes and then engaging people in dialogue to understand and create new approaches for this effort:

Part of it was that the leadership within Extension and within the state extension council at that time was more of a top down structure rather than a learning structure. I don't know all the details of why, but it [council training] never got out to anybody. As we started through the process this next time, we recognized some of the curriculum that was there was pretty good. Some of the ideas were pretty good, but the process that we went through was not successful. And so we needed to do some things differently. So we took a more community development type of approach and the learning organization type of approach that involved people.

What was transformative then was the learning process and the resultant process for engaging councils in the learning. The actual content and its just-in-time, web-based training format was more indicative of adaptive learning. The analysis of web-based materials, meeting minutes, reports, and personal communications also supported these findings.

Similarly, the Grass-based Dairy Project was highlighted as successful because it engaged dairy specialists, agronomists, business specialists, community development specialists, consumer finance specialists, youth specialists, state and regional faculty to improve pasture management and further develop the economic viability of smaller, seasonal grass-based dairy operations. One person described this engagement as follows:

To walk with those producers and to learn as a group, 'What are the issues that you keep in the dairy industry? What are your needs if you are going to stay in the dairy industry?' Then as a group, looked at if the dairy industry goes out, what impact is that going to have, where are the input suppliers, where are those things going to happen. Then after that time, what they did as a group is what this whole learning model is, used those same people—the bankers, the producers, the faculty—to design the learning program that they as a core group would be implementing state wide, or more specifically, within their groups down there. And establishing priorities. So as a group they've learned what are the needs, designed the program or structure such that they can stay engaged as co-

learners and then as a group learn together the new principles of the dairy system.

The organization websites, program materials, and program reports also supported these descriptions of transformative learning.

Another example indicated the challenging of the status quo or normal way of doing business and the cross-disciplinary nature of such learning. A participant in the process related:

[T]here is one specific practice that...drove the whole transition of our value added program—the aspect of being a facilitator. In other words, the value added program was “I am the expert and I will make some widget.” In other words they were totally technologically driven: “You ask the question, I’ll give you the answer in terms of value added agriculture.” I think we totally changed it to value added is more about innovation, and it may involve technology as a kernel. Or it may not. And our role totally changed from that of one being the expert to one of being the expert facilitator for them to have their own ideas and to bring out and then make connections for them to figure out how to make that a reality. It’s a total transition. It was not where we were at and that’s where we went. And that was seeded among our faculty who had gone to the Community Development Academy because those were the ones that took it up right away and easily and then were followed by the other people.

This program was also cited by other participants and in the official web site, organizational documents, and reports.

Despite these and other examples of transformative learning, several participants aptly pointed out that transformative learning is difficult and not the norm within the organization. One PD noted the discrepancy between the espoused organizational learning theory and the practice of organizational learning:

For the lack of a better word, I don’t know if oxymoron is the right word, but we operate in an educational institution that places the highest value on learning. And yet I would probably have to say that the way in which we operate does not always line up with what we say is our highest value. And in a sense that is kind of odd or kind of peculiar. And I don’t think any of us do it intentionally.

This same PD went on to indicate a knowledge of the process from reading, which included “information coming in, you’re looking at it, you’re learning together, you’re making changes, you’re reviewing it, you’re rolling it back around.” In reflection on organizational behavior, this PD, like others concluded that generally, “It’s those last few steps that I don’t think we’ve been able to do well, but I don’t think there are very many organizations that do do it well.”

Creativity and innovation would be an expected characteristic of transformative learning. One of the top leaders who saw learning as process of development noted the organization to be missing the ability to be very creative and innovative. Noting that these characteristics have been rewarded only to a limited degree, this leader concluded,

In terms of sort of bold ideas, I haven’t seen a lot of that within the [number] years I have been here. I wonder why and I sometimes I think it has to do with a culture that doesn’t encourage it.

My own observations and reflections from my nearly 20 years of experience in the organization and this intense year or two of study add concurrence that transformative learning is not the norm. But transformative organizational learning does occur, and more leaders are aspiring to it as they observe it occasionally being modeled. In summarizing the common characteristics of the transformative learning:

1. These learning processes tended to gather a broad and diverse array of people and perspectives to work as a team, which included those affected, i.e., the customer or learner served.
2. The team members worked as equals in learning or as co-learners.
3. The process involved inquiry and questioning of the status quo. “Why” and “what if” were operative words, without the blinders of past reasons for action

(or inaction). Yet participants used the past as a source for learning and adaptation as appropriate, or change was not made solely for the sake of change.

In summary, participants cited adaptive or reactive learning as generally occurring in the organization. These examples included annual staff and faculty conferences, in-service education, new faculty orientation, and educational programs. A few however, noted the critical need for and several examples of transformative learning. In the later description of findings pertaining to the second research question, I will explore how the RDs and PDs engage in fostering both adaptive and transformative learning.

Vertical, Horizontal, and Multi-Directional Learning

A second typology for organizational learning emerged as various participants talked about the organizational learning they saw occurring in the organization. While various words were used in describing the process, key differences emerged around the concept of the direction of initiation and responsibility for the learning and the communication flow associated with learning within the structural context of the organization. Therefore, I have chosen to discuss this aspect of learning in terms used by several participants: vertical, horizontal, and multidirectional learning.

Vertical learning. One top leader characterized the vertical learning this way:

We spend, it seems like a lot of time and concern, I'm not sure that's inappropriate, about vertical communication across the organization. The people at the local county level and below know what is adequately going on in the headquarters of any operation.

One regional specialist indicated seeing organizational learning in this one dimension, noting, "My gut reaction [regarding organizational learning] wasn't thinking of it as a two-way but more of a top down dissemination of information." One state specialist

talked also about the “bi-directional” versus “uni-directional” nature of communication and the importance of openness in communication for organizational learning.

In a time of organizational transition, this vertical line of communication for learning was noted as critical by one of the regional specialists.

But possibly it’s different now... We have focused on hearing of program information and regional updates and that kind of thing. Where I see a gap right now is in transfer of strategic information that depicts our organization as a whole. I think that there is a little bit of a gap on decisions or information or activities ... in terms of the leadership or administrative lead role and how the information or learning is passed down through the ranks. You know, it kind of goes back to maybe we need to start reinforcing what our mission is and that type of thing, given some of the changes that we have gone through.

This specialist identified the need for organizational learning at this time, stating further, “We are in a learning creation mode a lot right now.” Acknowledging the need for such vertical communication, this individual’s perspective was one of isolation, noting, “[T]here isn’t high frequency on communication or transfer of learning information that seems to be going back and forth from the administrative level through program leaders (directors) to regional directors to staff at this time that I know of.” Countering this person’s experience was that related by one of the top leaders who said:

I think some faculty feel that there is a willingness to listen and to accept input and opinions. I think they feel that...administrators are listening and taking their input and...that they’re using the input they’re receiving from faculty. I have had several regional faculty that have just written that they feel that their views are being supported and reported to the proper administrators--that their views are being heard. And I think that is very valuable. People want to know that they can give input into an organization especially when change is occurring. And they may know that all changes are not possible, but they very much want that open voice.

The vertical learning most generally referred to top-down communications, but the evidence indicated the flow of communication and listening was top-down and

bottom-up. For example, a PD shared how regional specialists and staff had significantly informed the learning that occurred with the development of the volunteer screening process. This PD shared,

I have found lots of folks, who once they started talking about it came forward, and said, “I’ve got a horror story on that as well. This is something that happened. We’ve got to do something about this because we’ve put ourselves and the people we serve at great risk because we didn’t do that.”

Another PD shared how the State Extension Leadership Development Program fostered the bottom-up communication, commenting,

We learn not only about the parts of the organization and the personnel that are involved, but gain input from that group of potential leaders on how we may move the organization forward. It’s a process by which everyone’s opinions are valued.

Bottom-up learning was occurring also with RDs using groups of specialists to develop agendas for regional meetings and the PDs who engaged regional faculty in advisory council meetings. RDs and PDs also regularly met formally, and sometimes informally, with the top administration.

The need for learning that spans top-down and bottom-up in the vertical structure of the organization is important, and especially so in a time of organizational transition. At the same time, the need for lateral learning was identified as critical to the organization.

Horizontal learning. The same top leader who discussed vertical communication and learning further characterized the nature of the organization’s horizontal learning with these words:

I think probably what we don’t do as well, and it’s not an administrative responsibility, I don’t think we do lateral communication, horizontal communication nearly as well. And that’s where most of those are peer-to-

peer relationships. I think we seem to be more sensitive to doing a good job of vertical communication either as listening or in communicating, both in written form and orally. We seem to take for granted that a message in a committee deliberation will then be shared laterally with colleagues who might have an interest, that are colleagues in a field setting or a departmental setting. And I think we often take that for granted that that happens, and I think history would say it doesn't happen very purposefully.

While few people used the terms lateral or horizontal, the concept was embodied in several ways. This horizontal or peer-to-peer learning was repeatedly noted as occurring in the in-service education settings and during the annual conference. Yet, often, state and regional specialists, in particular, cited the need for specialists to gather within a program to learn from each other or within a region for shared learning experiences. Other discussions focused on learning among RDs or PDs or the two combined. All of the PDs noted the learning occurring through a formal monthly meeting and informal self-organized biweekly breakfast meetings. Top leaders and RDs also mentioned this horizontal or lateral learning occurring among PDs.

Multi-directional learning. The multi-directional notations implied a responsibility on the part of individuals at any level in the organization for implementation and engagement in shared learning experiences as opposed to only a top-down directive or leadership for organizational learning. One top leader articulated well the need for sharing at all different levels as part of organizational learning when she said:

You can't just share with your co-workers at the specialist level, and it really becomes a statewide change in program. It has to be shared laterally, and it all has to be shared vertically.... And it may not be straight up and down. It may be a zigzag path of learning. It may be that I started a program, I learn a little bit, I talked to other specialists who have done something else, but I learned from them so I can incorporate [the learning]...It's a living organism. We like to put all of our structures in

bureaucratic lines and structures, axes.... But actually it's too more fluid than that. Good organizational learning comes and goes...because somebody is passionate about something or somebody is passionate about an issue, and it takes that.... It might be a program director who is passionate about something and that passion gets transferred to a program and support. It goes either direction. It can't just go one way.

Because this multi-directional flow of learning and communication is such an ideal, examples of a limited nature were shared. One state specialist relayed how a PD “kept a better handle on what we were doing as state specialists and made much more intentional efforts to communicate that up the ladder and to communicate it out.” A regional specialist noted, “Real communication about what we’re supposed to be doing and then keeping us abreast of what everybody else is doing is so important.” As the participants from campus and regions and top and middle leadership spoke about the Grass-based Dairy Project, the Council Leadership Development Program, the volunteer screening process, and the State Extension Leadership Development Program, the multi-directional aspects of learning that spanned the organization were apparent. While not perfect, the organization’s adoption and implementation of the program logic model contained elements of multi-directional learning. On the flip side, where participants cited shortfalls with this process, the issue was often related to insufficient communication and opportunities for learning that spanned the horizontal and vertical dimensions that moved both top-down and bottom-up.

In summary, the vertical learning was the most often cited example when participants were discussing organizational learning and the sharing and communication necessary to this learning. The vertical learning most generally referred to top-down communications, but the evidence indicated the flow of communication and listening was top-down and bottom-up. Participants also noted the critical need for horizontal learning

as they pointed out the merits of annual conference, in-service training, regional meetings, and work among RDs and PDs. A few participants integrated the types of learning and the flow of communication in all directions. Again examples already cited, such as the SELD, volunteer screening, council leadership development, involved both. Perspectives varied but most agreed the need exists for fostering the breadth of horizontal and vertical learning while acknowledging successful examples and vehicles that exist to contribute to each type of learning.

Formal and Informal Learning

The third typology for organizational learning that emerged was the formality of the learning. Most participants acknowledged that organizational learning comprises both formal or structured learning experiences as well as the informal experiences and tacit knowledge. For example, one RD acknowledged organizational learning is “very organic in its nature because it’s as much formal as it is informal.” The most generally used terms were formal and informal. Participants, like another RD, frequently discussed the importance of both types of learning:

They share what they have experienced and share what they know as far as far as formal and informal learning. They share their experiences and they share their backgrounds in those areas. And then they learn from each other, which means every individual member doesn’t have to have experienced something personally.

What follows is a closer look at descriptions and the nature of the formal and informal learning.

Formal learning. Participants tended to characterize the formal learning as that which was structured or planned. One state specialist called it “something that gets transferred via some kind of a procedure manual or something like that.” Others noted the

organization's internal weekly electronic newsletter as a formal vehicle for learning. Nearly all leaders and faculty commented on the annual conference and in-service education as important formal learning events for program learning and for cross-organizational learning. The discussion of roles that RDs and PDs are playing in fostering organizational learning will provide more illustrations of formal and informal learning.

Informal learning. One state specialist said that organizational learning is “an awful lot of what we do and how we operate that is transferred informally in a rather rapid manner.” Another state specialist characterized this informal learning as “looking at utilizing experience along with some shared knowledge that we have about something.” Yet another noted the informal learning “whether it's an expert knowledge that people have or it's tacit.”

Similarly, a top leader summarized this tacit and experiential nature of informal organizational learning as critical to the functioning of the organization when she said:

I see it [organizational learning] as being vital to how we can proceed and how we can end where we intend to end. I think a lot is not written or easily understandable about what we do in Extension or how to accomplish it. So, learning among ourselves, how we can best reach our mission is one of the most essential ways that we get there. There aren't a lot of classes to better help them understand the experiential piece of learning and that's what we're trying to achieve with other people to help them grow and develop and you can learn certain pieces with that, the processes. A lot of it is what you experience as you're part of an organization, what you've experienced evolves into what you've learned and therefore who we are as an organization.

A number of examples were noted, like this one shared by a state specialist in discussing her assignment as a mentor for a new regional specialist. She said,

I think that that information about my history with the organization and the organization's history with other entities like state agencies or something—we convey that information informally because the new people want to know. They want to understand the context.

Examples of this informal learning referred to sharing among individuals or within groups. As another top leader observed where organizational learning occurs, “I think in smaller group settings, at least in our kind of organization where we are dispersed, is where it happens.” The descriptions of effective organizational learning and examples nearly always revolved around people working in groups and teams. One of the clearest examples of the informal, experiential, and tacit aspects of such work was highlighted in a dialogue with one of the team members about the how the team had developed the Council Leadership Development curricula. She noted:

And I think a lot of teamwork built there was after hours. It was just that people had a chance to be together and get to know each other on a personal level so they trusted each other and liked each other and were willing to hang together to put together this curriculum. It was fun. That was a major part of it. It was a lot of work but it was fun. That was a major motivator. It was a chance to be yourself in a different setting. Not just confined to a particular role. Sometimes when you play a particular role in an organization for a long time, then you are kind of pegged, “Oh, Mary always writes the news. Or Jane always writes the articles for whatever.” It was a chance to get outside the box and do some other things. And also, I think, because of the people that were leading always brought things to the meeting that were kind of light. They would start out with jokes or pass around candy at the meetings, or something stupid; but it was important stuff. You know it all set the tone for “We’re going to work here, but we are going to have a lot of fun while we are doing it.”

This member described further how learning emerged in this project from an experiential learning module developed by several team members that was formally adopted as part of the final training package. This participant summarized: “So there was an instance of something that started out being pretty informal and experimental being institutionalized in just a short period of time.”

While the informal and formal learning are two types of learning, participants like the member of the Council Leadership Development Committee noted clearly how often

they are linked. Many regional specialists mentioned the importance of the informal learning that occurs in conjunction with planned or formal group learning events. One top leader saw this informal learning as the most important, noting:

I think of annual conference as an example of a very formal structure that we have established to have an opportunity to learn as an organization. But it's very sterile and you pick up some information and some facts. But it doesn't seem to me like you move forward as an organization; you're gathering facts. You learn a little more about the organization, you learn a little bit about maybe one of your cohort or your peers, about what they have discovered about what things they have done that have worked and haven't worked. Most of that occurs again in a subset. Again it's not the formal event. It's after the event. It's when everybody goes to dinner and has a discussion. To me so often that organizational learning occurs there in a very informal way. But it has to be a group of people, and I guess that's the part that puts the twist to it, who are themselves challenging themselves in continuing to learn.

Others like this state specialist summed up the importance of the formal learning at the same annual conference when she said:

I think that there was some communication of mission and changes in the mission that occurred in a way that was more formal almost, not written down necessarily. But I'm a believer in talking to as many people about something that's policy or procedure-related rather than the one-on-one because I think the grapevine interferes with people understanding it. And I am thinking specifically about when we were at the [campus conference center] and the director talked about things with a nice PowerPoint and the Lewis and Clark canoe in the background. To me, that was an example of a formal method of organizational teaching and learning.

As participants noted that formal learning events were richest if they included the opportunity for the informal learning, the value of learning that combines both was clearly apparent.

In reflecting on each of these three typologies, the aspect of tension seems implicit. A natural tension will always exist between adaptive and transformative learning, between horizontal and vertical learning, and between informal and formal

learning. All are important and critical for overall organizational learning. The key appears to one of striking a balance. I prefer to think of organizational learning within a sphere that can be sliced in different planes to obtain different perspectives of its core and its properties. No one slice will provide the entire picture, but much can be learned from looking at the multiple slices about the nature of the sphere under study. In studying the sphere of organizational learning in Extension, I found that there are multiple nuclei or nodes or intersections of learning that are occurring; however, the density and diversity of the learning represented by such hypothetical intersections is insufficient to pronounce the organizational whole as a model or ideal for organizational learning. As one top leader noted earlier, the organization will always be in the process of becoming a learning organization.

Based on the interviews with participants and reflection on the products of learning, the vertical, horizontal and multi-directional learning are each vital components of organizational learning. Regardless of these various aspects of organizational learning, communication and transfer of learning were absolutely and undeniably linked to successful organizational learning. Examining participants' comments about transfer of learning provided additional insight into the nature of learning occurring in the organization.

Relationship to Transfer of Learning

One state specialist's words clearly point to the importance of communication and the transfer of learning regardless of the directional aspect of the learning. She emphatically stated:

WE'VE GOT TO TALK TO EACH OTHER! [original emphasis]

You can have whatever system and processes set up, but if you're not talking very frequently in non-critical situations, there is just not the ability to pass along the kinds of conversation where you're going to transfer knowledge. Yeah it takes time.... Talk to each other! Okay, end of dissertation. Sit down.

Most learning is generally transferred informally. One regional specialist noted the following, with concurrence from others, "For almost anything that I've seen, unless it's a top down program that's being prescribed somewhere, that transfer takes place through informal, interpersonal channels that might exist."

Participants' discussions of transfer of learning included program content, processes, procedures and ways of doing business within programs and regions, between programs and regions, across various structural and temporal boundaries in the organization. In discussing how learning was transferred from one level of the organization to another, one of the members of the Council Leadership Development Team described how the newly developed curriculum was transferred to the regional level for training and used there. She noted:

On a broader level the curriculum pieces were put together. Then the CLDC [Council Leadership Development Committee] team got together with the RCLT [Regional Council Leadership Development Team] teams. We demonstrated the teaching techniques to them so that they in turn would teach those techniques out in the field.

Her description was consistent with those provided by other participants and organizational minutes and documents. This example also highlights both a transfer of content or product as well as the transfer of what was learned in the process of developing the product (i.e., the curriculum and training). Participants noted how they piloted training exercises within the group, talked about how it worked (or didn't work), and then shared that exercise when training trainers along with what made it work. The significant learning seemed to be that type of learning. Several participants however,

expressed concern that what was being learned about teamwork and rolling out such projects was not being formally captured in the organization for transfer. However, observations indicated that the process used for the Council Leadership Development was being replicated based on learning with the launch of the County Program Director Training, the team for which was convened as interviews were being completed. To aid in that transfer of learning, several members from the council leadership development team were also serving on the county program director team, at the will of top leadership. As a member of the latter team, I observed them bringing forward lessons learned to the group for discussion about applicability in this new project.

RDs and PDs also addressed transfer of learning in a number of their discussions. One PD noted that transfer occurs when “the early adopters” take on the process and when people are awarded or noted in the electronic weekly newsletter for success. Another PD expounded upon the nature of the transfers of learning in the following way:

It happens in our organization, not unlike any other really. It's word of mouth. It's success, it's clientele satisfaction, and it kind of takes on a life of its own. I've noticed in [State], though, it's kind of interesting because we have so many diverse interests and we're such a heterogeneous thing, the threshold for the program to all of a sudden go over the tipping point and be successful and then be a model which is talked about, is not that high really. I thought it was tremendously high here. It's not. In fact, it's pretty low. It's kind of interesting how a program can exist for a little while, and it's modestly successful, and yet it's pretty broadly accepted. It could be assumed that it's something to be mimicked and be spread around.

Several PDs observed they don't see as much transfer within and between program areas (discipline specific and generic knowledge or processes) occurring as they would like. One PD noted that the transfer of the learning process that successfully engaged faculty, farm operators and multiple disciplines in the collaborative learning

process for the Grass-based Dairy Program had not occurred with other similar programs in the unit. This same PD acknowledged the need for adaptation of practices to fit the differing context and sub-cultures for such transfers. Both RDs and PDs provided examples of how they as individuals had “mimicked” or adopted practices from observing another director having successfully used practices such as a weekly electronic newsletter or holding monthly conference calls.

Another aspect of the generally informal nature of transfer of learning was highlighted as the transfer of experience from one situation to another that occurs within the organization. One top leader described this transfer mechanism when she said,

I guess the other way that those things might get transferred, but not necessarily, is that if people who were a part of that effort, then become part of some other effort, and then would take what they have learned from that and use it in another mix of folks.

She went on to describe a specific example, noting that she wasn’t sure the individual had even engaged in a conscious process of analysis: “I think that’s only because that it [way of leading a team to learn and develop a product] was incorporated into her.” The State Extension Leadership Development program was often lifted up as a mechanism for transfer of learning that included this same aspect of individual’s transferring their experiences.

While participants noted the general informality and several top leaders indicated the “lack of a formal mechanism” to share what is being learned in successful organizational efforts, programs such as the State Extension Leadership Development Program and the mentoring and orientation programs for new faculty represent formal structures for transfer that cross vertical and horizontal learning dimensions of the organization. Despite these, one top leader commented:

One of the concerns I have about organizational learning in Extension is that I'm not sure that we have a method for formally transferring it with these policies. And I think that policies don't always transfer learning. Policy institutionalizes better circumstances at that time to deal with issues rather than the learning you're talking about [which] is continuance, molding and shaping over a period of time so the organization can continue with its mission.

In considering the learning that occurs and how it is transferred, one top leader's comments revealed that the process of engaging people is what has transcended across the organization. This leader noted:

I think that process... we use for everybody to get together and to think in large groups and small groups to come up with ideas about how we can change and do things a little differently or a little more efficiently...is one that we actually in our organization follow pretty often in whatever we are looking at.

In conclusion, the learning that is focused on content versus a process for learning that transcends content constitutes the fourth typology for learning. In some cases, the focus on content versus process was made clearer by participants' descriptions of the transfer of the learning.

How participants describe the various means for these shared learning experiences, ranging from working as teams to simply convening for shared learning experiences. The context of teamwork and shared learning experiences as vehicles to create organizational learning also illustrated the nature of organizational learning in the organization.

Teamwork

The various examples relayed to this point have frequently elevated the role of a group or a team. Teams were often involved in creating and implementing organizational knowledge and sharing learning, whether focused on a specific program, a specific

region, or pertinent to the entire organization. One PD noted, “I look at organizational learning as we take an issue, we take a program, we go through a very deliberative process as a team.” Several top leaders and PDs discussed the transitional work teams developed by the interim director and noted the value of the representation from all levels in the organization in these teams to organizational development. One of the top leaders commented:

Right now, I think what’s working (or saving us) to help us be more of a learning organization, is the fact that we’ve got those consolidation teams. . . . And we’re all starting at the beginning by building capacity, learning together about the issue and then trying to think together about how to go forward. So, I think we’re still learning, but we’re learning in little sub groups rather than as a whole organization. Now I guess what happens too, is those little sub groups get back together with the bigger administrative teams. And then we share where we are. And then there’s input to say, “Okay this is good, or maybe you all should reconsider that, these kinds of things.”. . . I think it has given us a way to allow people to open their minds to change and to look at the entire system, to do systems thinking rather than focus on their part. So it’s allowed people to focus on the whole, have a big picture, learn together in their subgroups and then get back together.

Participants discussed the use of teams when referring to structural teams such as the Program Leadership Council, the PDs, the RDs, and when referring to functional teams such as program teams, task-specific organization-wide teams, and teams within regions to work on issues. One of the RDs again talked about the Council Leadership Development effort as a multi-layering of teams in this description:

We have a statewide team and in each region we have regional council leadership teams. And ultimately where we’d love to be is that in each council, there would be a council leadership development team. . . . So, statewide, regionwide and ultimately countywide.

One of the top leaders reflected the pervasive nature of teamwork as part of organizational learning and even the culture of the Extension organization. She indicated the development of teams is a natural organizing phenomenon in these words:

[Regional specialists] will create small groups to share and learn together. And it is a creation of small work teams. They do this in spite of any leaders. Now a leader who is smart enough to support it and encourage it and guide it, then those teams can really make a big difference. I'm thinking of some of the teams that created their own grants and contracts that work together as a team in every [program] area.... I think it has always been in there, but it is very strong in [State]. The weakness of some those teams is they did not pull in, they did not demand—and maybe they were told not to demand—team members that come from the campus or from any of the campuses. So, these were self-organizing, learning organization teams. They were everywhere around areas of interest, areas around issues.

In addition to teamwork, people talked frequently about the different venues for sharing learning experiences, some of which were related to working in teams and some of which were related to coming together for shared learning experiences.

Shared Learning Experiences

The concept of “shared learning modes” was a term used by one of the top leaders. As participants discussed organizational learning, they described the various means by which they had come together to create, share, and transfer learning. With the increasingly complex array of options for communication, the geographic dispersion of faculty and offices across the state, budget reductions, and time constraints, the organization has strived to take advantage of the multiplicity of modes for creating shared learning. Participants described three basic modes for augmenting shared learning among individuals and created organizational learning: (a) face-to-face or in person; (b) synchronous technologies to provide a virtual gathering, and (c) asynchronous

technologies for less active interaction. Together these reflect the often-used internal phrase *high tech-high touch* to describe the organization.

Face-to-face. First, face-to-face meetings and gatherings as a mode for facilitating organizational learning were repeatedly and overwhelmingly touted as the preferred means. One state specialist commented on the value of face-to-face in-service education as an organizational learning event:

[With] one-on-one communication and feedback between people on the success of a project or a meeting and failure, you sort of wonder, “Well, is this an isolated incident or whatever?” I find the ISE [in-service education]-type of situation where we can get almost all of regional [disciplinary title] specialists and most of our state specialists together in a room for a day or so to talk over things really facilitates being able to implement learning. You more quickly reach a consensus or conclusion and develop confidence that your conclusion is right, that we need to change this, or this is a problem that needs to be dealt with.

A regional specialist, like many others at all organizational levels, noted the relationship building that tends to occur during face-to-face gatherings such as annual conference, in-service education, regional meetings, specialists’ program meetings, team meetings, etc. This specialist said, “I think sharing of information with other people, meeting people, staff people, meeting other people, that sort of thing is critical.” Referring to annual conference and to face-to-face in-service educational meetings that brought the entire faculty from a discipline together, one state specialist indicated,

I think part of it was just we weren’t having any conferences for meeting people and all the changes we’re starting; budget cuts were going on. People were very isolated, not hearing anything, not knowing anything, and so I think giving people a chance to be able to just talk to other people.

This building of personal relationships was a key theme repeated throughout the conversations with participants.

Most people preferred face-to-face means and some even indicated it as the most effective venue for organizational learning. One regional specialist summed up its value when she said, “Having gone through my first week of [S]ELD [State Extension Leadership Development], I learned a lot in those four days. The other thing is cross-program areas is where the face-to-face is a really good way to learn.” Yet just meeting face-to-face is not a panacea as another regional specialist commented, “Getting together face-to-face as a statewide organization is great. But without a clear sense of direction and purpose, it is not effective. Sometimes that has been the case.”

Synchronous technologies. Second, synchronous technologies provided a virtual gathering or meeting for a group through interactive television (ITV or video conferencing), web-based telephone conferencing, and telephone conference calls. These venues for meeting were cited primarily as important for updating and as a delivery mechanism with customers (learners). Regarding the use of the ITV, several people noted its use to convey information on specific issues. One state specialist indicated, “I thought it was wonderful to have everybody at least connected at one point once a month.” About this same use, one top leader also said:

In a lot of respects I don't think that worked very well. One because a lot of times the topics weren't identified until a very short time period before they were talked about. And then there were so many people involved that it wasn't a dialogue. It was just a presentation that you could have done in another fashion. Sometimes the topics weren't of interest to everyone, but everyone was asked to come. I think if there was organizational learning around that, it was that perhaps what people at the top want to say is more important than what people elsewhere want to hear.

The web-based telephone conferencing system called Centra® was cited more frequently than ITV by state and regional specialists, PDs, RDs and top leaders for meetings and updates. However, not all were familiar with or comfortable with its use.

Several regional specialists noted that they had not used it prior to the focus group and indicated there was inconsistency in training for its use in the organization. Similarly, several state specialists knew little about it. In looking at the data, all of these groups were using Centra® but not everyone in all of these groups were using it. One top leader noted that learning to use the technology was a “part of what we need to learn in this organization.” Several participants highlighted an RD and a PD who had used Centra® extensively. About the RD, a top leader said, “She took the team through some guidelines as it relates to Centra®. That was one area of expertise that she provided support to others. And so that would be one example that I would see how organizational learning can occur.”

The telephone conference call was also mentioned as a common mechanism for shared learning among people separated by distance. One state specialist thought it was “a poor mechanism for communicating and building relationships because you’re listening, but you’re not participating. If you are listening, it’s not sinking in. You’re not building support. It’s not building any knowledge or changing anything.” Another state specialist however said,

Of all the technology for communication that we have at our hands, I felt that the old conference call... was very effective. You picked an issue a week ahead of time for 8:30 in the morning and we spent 30 minutes on it. It was very effective because everybody was part of the communication.

Specialists noted a lack of consistent training for use of Centra® and ITV as well as convenience and travel issues for use of the ITV.

Asynchronous technologies. Third, asynchronous technologies provided opportunities for organizational learning that were less active. Participants cited these as suitable for updating, sharing of files, and sharing of concepts or ideas that did not

require a conversation concurrently. Some of these modes like e-mail involved communication with the entire group or between individuals. Other modes provided by the Internet included such venues as the organization's electronic *Weekly News*, other newsletters and web-based sharing venues for file sharing, threaded discussions, learning about the organization, etc. Despite the more passive nature of this mode, participants nonetheless often noted the importance of keeping abreast or sharing of ideas and concepts via the web, the newsletters, and e-mail.

Participants recognized the need to use means other than face-to-face because of the cost and time involved with travel across the state. Regional specialists indicated opportunities provided by the alternative technologies helped them stay abreast of what was going on. One PD summed up the three modes this way:

I think if you have a group that is known to one another, the non-face-to-face meetings can work and work very effectively. But I think it is very difficult in a large organization where you do have groups that may not know each other on a very personal level, they come from very different backgrounds, different segments of the organization. There is some of that face-to-face communication that is very vital.

One regional specialist noted, "E-mail is a lot more effective for me if I know to whom I'm sending an email.... There has to be time that you do get together face-to-face. You can't completely substitute the electronic for personal contact."

Having explored the participants' definition of organizational learning and the range of aspects that constitute the nature of organizational learning in Extension, I will now turn to the flip side and look at participants' perceptions regarding the barriers to organizational learning.

Barriers to Organizational Learning

To understand what constitutes organizational learning also requires understanding what inhibits or stymies it. To grasp the nature of organizational learning as well as the role that middle leaders play in hindering this learning, I asked participants several questions related to ineffective aspects of organizational learning and the barriers they perceived to organizational learning. In the following section I will share the findings regarding perceptions of the barriers in the organization. In addressing the second research question of the role of middle leaders in fostering or inhibiting organizational learning, I will integrate participants' comments with regard to how they perceived middle leaders were acting to overcome some of these barriers.

The barriers to organizational learning were analyzed in terms of the types of barriers noted and differences among groups citing various barriers. Basic categories of barriers noted were related to the organizational culture, structure, lack of trust, lack of clear communication, resource limitations, leadership factors, specific middle leader issues, individual characteristics, lack of time and busyness, technology. Table 4.1 provides a summary of these barriers as identified by the groups that participated in the study. In general, leadership issues were cited most frequently, followed by organizational culture, middle leadership issues, structural issues, lack of clear communication, individual characteristics, lack of time, resource limitations, busyness, lack of trust, and technology. Following is a closer look at each category of barriers as described by participants.

Table 4.1

Perceptions of Barriers to Organizational Learning by Organizational Group

Barriers to Organizational Learning	Organizational Groups					
	Top Leaders	Middle Leaders		Faculty		State Extension Council
	n=8	PD n=5	RD n=8	State n=22	Regional n=25	n=11
Organizational Culture	x	x	x	x	x	x
Structure	x	x	x	x	x	x
Leadership Issues	x	x	x	x	x	x
Middle Leader Issues	x	x	x	x	x	
Trust	x			x	x	
Clear Communication	x	x	x	x	x	x
Resource Limitations	x	x		x	x	
Time	x	x	x	x	x	
Busyness	x	x	x	x	x	x
Individual Characteristics	x	x	x	x	x	x
Technology	x		x	x	x	

Note: Transition, culture and tradition, and leadership were cited specifically as being either barrier or facilitator of learning.

Organizational Culture as a Barrier to Organizational Learning

Organizational culture was discussed as a barrier to organizational learning by all of the participant groups except the state extension council members. When discussing

culture, most people referred directly to the term culture or tradition. Several aspects of culture that surfaced are summarized in Table 4.2 below.

Culture and tradition. Several leaders referred specifically to tradition and organizational history, noting these as both great assets and tremendous barriers. For example, one top leader said:

Well, probably the greatest barrier that we have ... is our strength, but it's also a weakness, is tradition. There is an Extension lore that I think is being lost to some extent because of these retirements of people of long service. But there is a lore of how we do things that we somehow have to hold on to. That tradition is in many ways is evident in the composition of county councils. That's a huge barrier. We have not been able to overcome the traditional representation of county councils in spite of our best efforts. And I'm not just talking about diversity, racial or gender diversity. I'm talking about who these people are and who they represent and why they really want to be on the county council. I am certainly not impugning county council members, but that's a huge barrier.

One state extension council member related that oftentimes local council members have “got the impression that they just got to go to one meeting a month.” The fact that the organization has invested significant effort and resources into the Council Leadership Development Program and it was frequently cited as an example of organizational learning points to the significance of the issue with extension councils.

Other leaders also noted the role of the organization's history and tradition. One RD said:

Organizational history is another barrier. And I think of a couple of examples. In the 4-H program, we're working with trying to expand our audiences and trying to do different things.... I can think of conversations with a number of councils that say, “*This* [original emphasis] is what we do in 4-H.” I think in the Ag program of some of the challenges we have based on the issue of a service that we would go out and ... work one-on-one with agriculture producers where we don't have the resources to do that now ... because our programs are so much broader than just production-oriented and answering production questions.

A PD also noted the tradition steeped in the 4-H program but also went on to indicate another example of Extension's strong traditions:

There is for us [in Extension] and the 4-H program so much tradition about how we do things.... Folks would say we're always going to have to have a county Extension office. Well, maybe. Maybe not. So traditions and being an old organization sometimes makes it hard to do the kind of learning and changing that we ought to do.

Another PD identified the rigidity of Extension as a long-lived organization as a factor that makes it difficult to be a learning organization, to adapt and change. One top leader referred to the bureaucracy of Extension. Another discussed the barrier caused by the organizational belief that products and services have always been free and should remain so. A state specialist talked about how the "Good Old Boy" or "Good Old Gal" system could also get in the way of the organization moving forward. Similarly, regional specialists noted, "The culture is resistant to change," and, "Maybe the culture is not as quick to transform."

Regional and state specialists from various program areas described another interesting phenomenon that they labeled as "Extension guilt." One related it as:

"You've got to do it or this will never happen," or, "You need to do this programming, and you're the only one that can do it." You reply back, "I can't do this." "Oh, but you've got to do it." And it seems like guilt is used a lot.

Others noted, "You are more valuable if you spend all your evenings and weekends working." Another related this phenomenon as:

the expectation that regardless of what we will put before you, you will figure out a way to get it done. So we're not going to add a person and we're not going to give you any money to hire a consultant or a contractor, but you'll figure it out.

Reflecting on this issue, another specialist said, "I think sometimes the consequence is that you are deemed suddenly a non team player. If you want to create healthy boundaries, that sometimes is translated into not being a team player." This aspect of the culture was also reflected in comments about time and busyness that will be discussed later.

Table 4.2

Perceptions of Organizational Culture as Barrier to Organizational Learning

Barriers to Organizational Learning	Organizational Groups					
	Top Leaders	Middle Leaders		Faculty		State Extension Council
	n=8	PD n=5	RD n=8	State n=22	Regional n=25	n=11
Culture and tradition	x	x	x	x	x	x
Complexity of organization	x	x	x	x	x	
Silo mentality/turf	x	x	x	x	x	
University culture	x			x		

Organizational complexity. The complexity of the organization was highlighted as a barrier when people noted challenges presented by the geographic scope of coverage (all counties in the state) and dispersion of faculty and the diversity of the constituents served. For example, one state specialist noted, "You have a challenge when you have 16 counties that are miles and miles apart." Another cited the differences in counties served, saying, "We've got, you know, certain counties that have an enormous amount of resources and then we have counties that have much fewer resources, and to have to deal with the different challenges that each probably face is probably a barrier." Another

specialist viewed Extension as “such a diverse organization and literally [we] have our fingers in so many parts of the pie.” In addition to the interviews, organizational documents clearly pointed to the variety of disciplines and programs that exist, with each having its own sub-organization and culture. This variety related to the concept of turfism, which also emerged as a significant barrier.

Silos and turf. The existence of a silo mentality and the concurrent turfism was noted explicitly as an impediment to organizational learning. This phenomenon is both a cultural and structural one but was most often discussed as a cultural issue. The silo mentality was shared as pertinent to program areas, regions, and even Extension in relation to the rest of the university.

Most often noted was the silo mentality as it exists among program or academic areas. In referring to operations in general, one top leader indicated, “Everybody has been in a silo mentality to some extent because that was sort of the expectation.” Concerns about the cross-disciplinary work also surfaced as this one regional specialist also voiced, “I fear that we’re getting a little myopic in our different fields of expertise by not working more in cross functional teams. That’s my biggest concern.” This issue is not isolated from decreasing resources and increased demands on time as one state specialist noted how both reduce opportunities for cross-disciplinary communication. What distinguished the turf or silo mentality as part of the culture was epitomized by a comment from one of the top leaders who identified this phenomenon as juxtaposed with the ability to see the big picture or the systems view of the organization.

The silo or turf mentality also surfaced as a barrier to cross-regional learning and operations in the different eight regions. One top leader expressed this separateness as part of the structure as well as the culture in these words:

[I]n the past unfortunately regional directors have been accused of being silos. And when, if there's any truth to that perception, that we go to a meeting and then we go back home, we were so busy implementing that we didn't have time to find out if we were implementing all the same.

These aspects of a silo mentality were also reflected in comments specifically about both RDs and PDs that will be discussed in more detail below.

University culture. In speaking about Extension in relationship to the rest of the university, one PD stated:

I'd say, and this isn't just such a characteristic of Extension in [State]. I think there are some other states that have it too, but a characteristic I've found particularly curious in [State] is the need to constantly carve our own niche out from the rest of the institution. I think there is too much time spent on that. Frankly, I think it holds the organization as a whole back. It holds Extension back and that's why I'm really watching it very carefully in this transition of Extension to the campus. And what I mean by this specifically is...Extension was referred as the fifth campus as though we had University of [State] and then we had something else called Extension that sat out on a hill or something.... So now, as it moves to campus, I think one of the things, if we need to learn about something, I would like unlearning about turf protection and who gets credit and so forth.... I think we would have more to gain by integrating as a whole institution at the university and figuring out how to add value other than trying to toot our own horn and carve our own niche.

The findings related to structural barriers will also touch on this concept of separateness.

Participants also discussed barriers they feel are imposed by the culture of the university within which Extension resides. Mostly state specialists who reside in both worlds and juggle the competing demands, especially of tenure requirements, cited this as a barrier. Several state specialists specifically noted the focus of tenure on individual achievement when Extension work values and operates to a great extent with teamwork.

Others however noted their belief that working as a team player and recognizing the value of tenured faculty has overcome some of the tenure tension issues.

Organizational Structure as a Barrier to Organizational Learning

Organizational structure appeared as a barrier among the various groups. These barriers sorted out as related to the structure that supported the silo mentality, the organizational consolidation/transition itself, the multiple stakeholders and matrix type organization affiliated with the structure, and the structural system for capturing learning. These items are portrayed in Table 4. 3.

Separation and fragmentation. The separation or fragmentation of the organization fostered by the structure was highlighted as one resulting in part from the structure which had been a university system structure paralleling a campus-based system. Similarly, the participants also cited the disconnection between state-level or campus and the regional or field faculty. This concern was evident in comments by state specialists such as: “I just always felt like they were two organizations when you consider the regional director and the staff and then the campus with the program directors and the faculty and the state specialists.” The separation has led to an “us versus them” or conspiracy mentality as several participants observed. This separation is also reflected in the middle leader issues related to RDs and PDs discussed below.

Multiple stakeholders and multiple bosses. A key aspect of the structure, which contributes to the complexity of the organization and also serves as a barrier was a phenomenon of multiplicity. In particular, participants cited the challenges created by multiple stakeholders of county, state and national government, local citizens and a widening array of partners, contractors, and grantors in a tighter funding environment. As

a regional specialist noted, “[W]e are also guided by the Small Business Administration to turn in training reports. Extension doesn’t have anything to do with that, but that’s where we get our impact data since [that agency] is a funder.”

Table 4.3

Perceptions of Organizational Structure as Barriers to Organizational Learning

Barriers to Organizational Learning	Organizational Groups					
	Top Leaders	Middle Leaders		Faculty		State Extension Council
	n=8	PD n=5	RD n=8	State n=22	Regional n=25	n=11
Separation		x		x	x	
Transition/consolidation	x	x		x		
Knowledge management system	x		x	x	x	x
Multiple stakeholders /masters to serve	x	x	x	x	x	

The other aspect of multiplicity in the structure related to people reporting to multiple superiors, typical of a matrix organization. Regional specialists observed reporting to a RD, PD, and the Extension council. One noted, “[W]hat they want to hear may be different than what the others want to hear, but I just go back to the number one person or agent that we have to report to as people that need our knowledge.” Similarly, state specialists were responsible to a department chair and PD. PDs reported generally to an academic dean and to the Extension director.

Other structural barriers. Other structural barriers included the transition period and a structured system for sharing and transferring learning. The transition period

arising after the consolidation had produced uncertainty about the structure. More often, however, participants specifically identified the lack of a sufficient system or mechanisms for capture and transfer of learning as a barrier to organizational learning and transfer of learning. Such a system included especially, but not exclusively, the lack of a reporting system that met organizational and stakeholder needs.

Leadership Issues as Barriers to Organizational Learning

Participants cited leadership issues most frequently as barriers to organizational learning. These issues are broken down in Table 4.4 and discussed below in light of participants' perceptions. Specific issues related solely to the RDs and PDs are discussed separately later.

General lack of leadership. Lack of leadership along with clear signals and modeling from leadership above was cited throughout the organization as a barrier to organizational learning. Some participants expressed the belief that leadership has to come from the top, though not to the exclusion of other locations. One top leader observed,

I see them [middle leaders and faculty] looking for cues from whatever one would characterize as the central core administrative team. They're looking for those cues, I believe, that say, "Well, it really is okay. This is something that is valued to be a learning organization and I should be able to trust individuals when they give me their best response."

The comments of state specialists confirmed the perception of the need for leadership from the top. One said, "I think the organizational learning, from my perspective after being here at the university for nearly 30 years, is that it the impetus has to come from above." Another indicated, "[T]here has to be this administrative buy-in and philosophical tone setting." Yet another indicated, "So if you want communication in the

structure, communication has got to start at the top or you can kill the middle.” After relating a past incident that occurred as a result of change of leadership, another state specialist noted, “It kind of leaves a bad taste in your mouth from an organization learning standpoint when you don’t know who to report to until you report to the wrong person.” Looking to the current situation, one regional specialist observed (as noted earlier):

Where I see a gap right now is in transfer of strategic information that depicts our organization as a whole. I think that there is a little bit of a gap on decisions or information or activities that are going on in terms of the leadership or administrative lead role and how the information or learning is passed down through the ranks.

With regard to modeling and messages from the leadership above (at whatever level), another top leader acknowledged,

Maybe we haven’t sent that message clearly. We sent it in certain areas. We sent it in diversity, or tried to. We sent it with regard to program logic model and set up a reporting system. But there are opportunities for leadership among RDs and PDs. Maybe they just haven’t been explicit.

An RD also highlighted the importance of the message from one’s superiors in noting:

It makes a real difference to me how the folks above me in the organization handle things when things go wrong or when things go right. I can remember an example from when I was CPD [county program director], when we built and worked very hard to turn it to a new building. We had our open house and our regional director did not show up for open house. I’ll always remember that, even though it was like 15 years ago.

Relationship void. Several participants explicitly identified the lack of relationship with a superior or leader (referring to an RD or PD) as a barrier to organizational learning. Several regional specialists, state specialists, and a council member expressed concerns about the lack of relationship with an RD (not the always the same RD). Specialists’ comments were similar in nature to this one:

[T]here's a tendency for face-to-face communication with the regional director to be once a year, sometimes twice, for one-on-one time with the regional director. And this is very frequently at a time when the budgets are out of money and there's a lot of stress for them and the campus. And it's not a real good time sometimes to sit down with the person that you report to and try to communicate these efforts and results and frustrations and so forth.

State specialists also noted that an RD who might not be familiar with a specialist's area of expertise would have a hard time evaluating that person without attending a program or interacting with clientele. The lack of a relationship with the RD was also cited as a barrier to learning for several council members by council members.

Specialists who don't have a relationship with their PDs also faced barriers to learning. One top leader related,

[If] you don't call them together for so long, some people don't even know who their program leader [director] is. I know that's crazy, but it's true.... Now I have to say that I heard that about a year and a half, maybe two years ago. And I'm thinking now that we may not get that kind of statement [now]. That was shocking to me. I thought that was probably a result of that program leader [director] probably not really engaging that person and getting them involved in the process of planning and working together and trying to change the system to better himself.

Another top leader noted, "If you're going to be successful even in an online situation you have to build a relationship." As indicated, this aspect of relationship is related to trust, communication, engagement and many of the other aspects discussed as barriers.

Support for shared learning. The most frequent comments with regard to leadership barriers were those dealing with the lack of support by top and middle leadership for shared learning, lack of opportunities for dialogue and group reflection to really deal with diverse perspectives, engage in two-way listening, and provide an opportunity for input. Statements about faculty not knowing other faculty also reflected a

lack of opportunity for face-to-face shared learning opportunities. One PD reflected the often-stated belief about the role of annual conference in creating an opportunity for shared learning.

I would say, and I'm going back three years, I think one of the things was diminished face-to-face contact and time for discussion and reflection. We diminished our travel dollars and our professional development opportunities. We didn't hold an annual conference for almost three years, and I think within the organization we became very distant. New people came on and didn't know all their colleagues from around the state. I think that was a real barrier to moving us forward. We have other means of meeting, but I think as educators in a very highly personable setting, we value that face-to-face interaction. I think you dialogue, especially if you are bringing together a statewide group, since we are a large organization, when you bring together a statewide group, unless you are very familiar with the people with whom you would be meeting with. If you're not face-to-face and you don't have the body cues and you don't hear the changes in the voice, I think people are very hesitant to bring their feelings to the table. You know, they're more reserved. I think we, we see such improved communication when we are able to come face-to-face. It's hard. It's difficult being statewide in a large state. But we can always do that, but that's one of the important things that improve the communication; it opens people up. It makes people open to learning.

Some however picked up on the quality of the interaction and the listening necessary in shared learning experiences. The words on of one of the RDs reflected this critical aspect as often lacking.

There's also a lot of one-way communication, we call it communication, one way talking at people versus the sharing. So I would like to see more of the sharing, more of the dialogue that is really two-way and that builds understanding. . . . About processing and dialogue. I get a lot more meaning when I use the word dialogue. I think sometimes a clay layer that we . . . need to penetrate so that we really are listening and hearing what each other is saying. And I think there's a point that it's just not happening. . . . And I don't think it's just program directors or regional directors; I think it's the whole organization that we need to work harder at it. . . . [I]f you're in a learning organization, a true learning organization, there will be more meetings. That's the downside, but they'll be more productive. And so you'll talk and you'll process things. And we kind of talk around things, but most of us are so busy that we don't have the time, I don't think, to really sit down and talk about things in a way that we can

help learn from each other because it does take time to do that. And one of the things I think, I believe that we [laughs] we had a lot of missed opportunities.

Table 4.4

Perceptions of Leadership Issues as Barriers to Organizational Learning

Barriers to Organizational Learning	Organizational Groups					
	Top Leaders	Middle Leaders		Faculty		State Extension Council
	n=8	PD n=5	RD n=8	State n=22	Regional n=25	n=11
Lack of leadership	x	x	x	x	x	
Relationship void	x		x		x	x
Support for shared learning	x	x	x	x	x	x
Decision support and follow-through	x	x	x	x	x	x
Risk-taking support	x					
Micromanagement and rigidity			x	x	x	x
Lack of focus		x		x	x	
Inconsistency between espoused belief and action	x	x		x	x	x

Decision support and follow-through. Participants also indicated the barrier to learning and motivation for future engagement when leadership failed to support decisions made by teams convened or endorsed by leaders or failed to follow-through on issues, be it top or middle leadership. Among examples shared was this one related to the launch of a web-based calendar.

[O]n a regional level, there was a big push that was presented at a staff conference. We had like two weeks; we were given a deadline of two weeks, to get everything for the next 10 months on this calendar. But little of any real instruction was given on how it was going to be used or the follow up would be. Basically we didn't really know why and then, so we did it. And then we really haven't done anything with it since then. It was probably a year ago now.

Likewise a PD talked about how the follow-up to constructively use the program logic model for program evaluation had waned. As one PD pointed out, "And if anything, old habits will come back, so it is determination and diligence to constantly keep reinforcing that."

Support for risk taking. The freedom, support, and incentives to take risks as part of learning was another barrier noted. One top leader confided, "I continue to hear, and I don't know whether it's anecdotal or whether it's pervasive or whether it's isolated:

'Well, I don't dare get involved in anything that's high risk.'" Another was more adamant in observations about risk-taking.

Because until the comfort level is increased, you're only going to tip their toe in the water. And we may need as an organization more immersion in the water.... What you have comfort with and what you like and what your passion is going to be your strongest thing that you do. And until somebody helps you expand your comfort zone, then you're probably not going to be taking [risks] you know. Like on council leadership, we have some regional directors who will do it and they'll participate with it. But they're really not out championing it. The question is why not? Do they think it is a bad thing? No. It's because their interest or comfort level isn't there. So, we've got to help people get there. And we can't do that by going to meetings saying "Here, this is some wonderful stuff we have going on, take it home and go do it."

Speaking from a different perspective, a state specialist shared this insight:

"People don't automatically open up wounds and say, 'Ah, well, I blew two million dollars and none of it worked.' I mean you have to have a system that's non-threatening and says, 'It's okay, but let's figure it out.'"

Micro-management and rigidity. The concept of micro-management by leaders, as a noted barrier, also included rigidity (“by the book”), and the tendency to be too prescriptive. State and regional specialists expressed frustration with some RDs’ and PDs’ “get-back-in-line” behavior and requiring that their blessing be given for participation in cross-disciplinary training and engagement in certain program delivery. An RD wondered “if sometimes if we’re [referring to PDs and RDs] almost getting too prescriptive.” One state specialist said of the RDs, “So I have seen them as almost a hurdle, not necessarily a roadblock but a hurdle, for the staff out in the field, the regional specialists.” A top leader also noted:

But some people feel that some regional directors are barriers, that they want to have everything filtered through the regional director before it goes somewhere. Whether that is a reality or a perception, I don’t know that I know that. I think that it does hinder organizational learning because if organizational learning only follows structural lines of an organization, then that [filtering] would not be a barrier. It [organizational learning] would be very simple and easy to do.

This rigidity and micro-management was cited as hampering creativity, cross-disciplinary programming, cross-regional programming, and responsiveness to local programming needs.

Lack of focus. Participants from different parts of the organization addressed the lack of focus or ability to maintain focus as another leadership-related barrier to organizational learning. One state specialist observed, “[T]here’s an awful lot of meetings where no learning at all occurs.” A PD expounded in more detail on the concept of focus:

I think we tend to stay, once again, more focused on operational administrative issues than we really do on programs. That’s the focus; it’s about the programs, how we impact people’s lives. . . . So the biggest barrier it seems that program directors face is that from the very top we haven’t set [priorities] or we’ve not set a process to set the top priorities. And I’m not going to sit here and say it’s the top. . . . The top can help foster

or encourage that behavior. But really any group that you work with, you're in power to set what the priorities are for that group. So, if we're talking about program directors, the only reason we don't do that is because we decide it's not a priority. We have the flexibility to set our own agenda. There's no one that says, and we may have some issues that we have to address, but if we want to dedicate ourselves to that and we felt it was a high priority then we could do it. And there would be nothing that would stop us.

An RD summed up this perspective with regard to organizational learning, "I still think that comes back to how you are going to have organizational learning. Well, you keep working at it and stating it as an organization."

Inconsistency between espoused belief and action. Participants noted inconsistency as a barrier, which was also related to the issue of trust. A PD addressed the difference between what leaders said and did as follows:

I think probably the biggest challenge we have, as an organization is not articulating clearly what our highest priorities are and then operating by it. I would say we've probably done better at saying this is what is important [sic] to us, but then we haven't really operated by what they are and measured and behaved in that fashion.

In further discussing organizational learning, this leader went on to say, I would say because we have not engaged in it [organizational learning] that frequently and seen the benefit that even though we esteem it, I'm not sure that in our hearts we really believe it and really want to act upon it.

One top leader when talking about resource management also pointed to inconsistencies, "Maybe we need everything we have, but that's not the message I hear. I hear people under their breath with one message, but what we carry forward is a different message." This person noted the conflict between basic values about being a caring organization, being an organization that manages its resources well, and the lack of dealing with that conflict despite awareness of it as a significant barrier to learning and acting together for the future viability of the organization. Similarly, a relatively new

regional specialist remarked, “And when I’m told that things are going to be phased out or I’m not to do it, everybody else is doing it.” Another regional specialist summed up this aspect of leadership in reference to helping people manage the workload, in stating,

But the question that I have about that is: do we walk the walk or are we just talking it? . . . Don’t find more work than you can actually do. But then we say that, but do we really do that in practice?

Specific Middle Leadership Issues as Barriers to Organizational Learning

In addition to examples that expressed leadership issues as barriers, a set of issues emerged that were related specifically to RDs’ and PDs’ roles and interactions with each other. Table 4.5 summarizes the perceptions of these middle leadership issues as barriers.

Coordination and consistency among regional directors. As noted earlier the state is divided into eight regions, each administered by an RD who resides in that region. Participants specifically noted a lack of coordination and consistency among RDs on basic issues. One state specialist put his concerns in these words:

The one thing that did stick out in particular with the heterogeneity of regional directors and their expectations and so forth even though we might have a program that has similar goals. We have eight regional directors that have different philosophies on how things should be, programs should be structured.... [T]he heterogeneity of regional directors is really a struggle.

RDs acknowledged the issue as well, as one articulated:

We’ve all talked about this at different points and different times, I think, but the eight of us have been through many, many different experiences, and we have learned as we have grown through those experiences. But I don’t know that we have a mechanism for the eight of us to share many of those experiences other than very informal[ly]. . . . I feel like often times we have eight different sub-groups within our statewide Extension system. Yes, we’re kind of generally moving in the same direction, but not at the same speed and maybe not always in the same direction. But, I hate for the eight of us to make the same mistake eight times [laughs]. So, I don’t know, like I said, I’ll stand corrected if my colleagues say I’m way off base. I feel that although we get together once a month, often times we

don't get the opportunity to talk about nuts and bolts of all the program planning process, how that's unfolding. So maybe that's one where I think we could probably use some structure or maybe not. I don't know.

Several top leaders also pointed to the critical need for building a team among the RDs.

Table 4.5

Perceptions of Specific Middle Leadership Issues as Barriers to Organizational Learning

Barriers to Organizational Learning	Organizational Groups					
	Top Leaders	Middle Leaders		Faculty		State Extension Council
	n=8	PD n=5	RD n=8	State n=22	Regional n=25	n=11
Coordination and consistency among RDs	x	x	x	x	x	
Coordination and consistency among PDs		x	x	x		
Collaboration between RDs and PDs		x	x	x	x	
Role clarity for RDs and PDs				x	x	

Coordination and consistency among program directors. While the directors for the five program areas resided all on the same central campus, some participants also noted specifically a lack of coordination and consistency among PDs or among programs on few issues. While less often cited than the RD coordination, this was still was recognized as a barrier to organizational learning. In particular, RDs noted different stages of program logic models and inconsistencies in the basic performance expectations for regional specialists. Specialists noted the failure to include other program areas in

multi-disciplinary program building and a lack of knowledge on the part of several PDs of other program areas. Participants often acknowledged the necessary differences between program areas because of the constituents served, funders, and academic content.

Collaboration between regional directors and program directors. RDs, PDs, and both state and regional faculty acknowledged the lack of collaboration as a barrier to organizational learning. Regional specialists talked about being stretched two different ways with regard to goals and objectives of programs and expectations for themselves. One noted, “I’m not sure that they are always in concert. [T]here is a little bit of discombobulation there.” One of the PDs noted that a few, not all RDs, saw the RD role as providing a check and balance to the PD, which had created conflict. Another PD observed,

[W]e can have the PDs trying to envision our course for content and programs that are research based, that are trying to be developed and implemented. And if we’re not careful, we could have another vision created by a regional director. And those coming in conflict when they shouldn’t be.

RDs made similar comments.

One top leader identified the context of the organizational consolidation and change as a factor for RDs and PDs, using the following words:

It’s more difficult because we have somewhat territorial boundaries associated with each group, I think. So to some extent, the learning may be hindered because there is a certain amount of positioning. I think the best way to describe it—my observation—is that, and not because anybody is doing anything that they shouldn’t be doing, it’s just that particularly in this particular point in time with our organization everyone is trying to feel their way and see where they fit within the organization.

Role clarity for regional directors and program directors. The lack of clarity for the roles of these two middle leader positions appeared to contribute to the lack of collaboration as well as confusion among state and regional specialists. This state specialist's comments reflected the sentiments of several state specialists:

I think part of the struggle right now, or at least it appears that way from the outside, is the roles are changing . . . between program directors and regional directors. . . . I feel like it's not clear whether regional directors have some involvement in program decisions or not, and it's also not clear whether program leaders [directors] have some involvement in more administrative management decisions. It's all fuzzed up for me.

One relatively new regional specialist openly shared the confusion that exists among regional specialists:

[O]n the program directors just like yourself, we don't know at what level we are supposed to communicate with you. Like, I don't know when I'm supposed to get my program director to intervene or do something. I don't really understand where my program director comes in and where my regional director comes in.

Wrapped up in these issues of middle leadership are communication, culture, structure, and trust. This is consistent with the findings related in each of those areas.

Other Barriers to Organizational Learning

Other significant barriers to organizational learning described by participants related to lack of trust, insufficiently honest and clear communication, resource limitations, lack of time, busyness, individual characteristics, and technology. While several of these could be included as part of the culture or leadership, they were singled out as distinctly separate issues by most participants. Table 4.6 portrays the various groups of participants' perceptions of these as barriers to organizational learning.

Lack of trust. The need for trust was noted sufficiently often as critical to organizational learning that I have pulled it out as a separate barrier for discussion (See

Table 4.6). Trust was mentioned at least five times in conjunction with “leaders following flavor of the day” as a means that whittled away trust in the organization. A related aspect of trust was the comment by one PD, which indicated that a barrier is the lack of willingness to hold each other accountable. Peer accountability requires trust and a relationship on which to base that trust. Indicative of comments from several regional and state specialists, one state specialist stated, “[F]olks who say, . . . ‘This too will pass and you can just ignore it because tomorrow we will be on to something else.’”

One top leader related well how trust is related to other issues and to organizational learning:

Trust is important in developing true organizational learning. If people don't trust that they can question the environment or question the purpose, then what they've learned is that you do what you're told. Even if flies in the face of the mission and what we are about, we will keep doing X. Because if you ask about it, you get clapped down for it. Therefore I am better off doing something that I don't truly believe is worthwhile than I am to question why we are still doing it.

And the trust factor does play into whether an organization can move forward as quickly or as well as they would like to do. If people don't trust the messages that they get, then they proceed to do what they think is the right thing and ignore any new information because they don't trust that it's really reliable. Or that I have been doing this the same way forever and I was told 10 years ago that I would have to change, but I still haven't and they haven't done anything about it so I don't have to do it. And that's a form of trust. And if people have decided that I really will make my own rules, then that's a key to their own organizational understanding that within this organization we will be told lots of things but we can filter out what we think and just keep the part that we like. That trusting, if you don't have that, then it affects what it is people learn and changes their understanding of the organization.

Lack of clear communication. Although middle leaders did not specifically use the word trust, they spoke about the concept in terms of leadership focus and communication. Table 4.6 provides insight as to how different parts of the organization

saw the lack of clear and honest communication as a barrier. That trust is closely associated with communication was also highlighted by the words of a regional specialist,

I worked in a lot of different government agencies where your hands are tied. You can't do much of anything that's creative or innovative, and that is the beautiful part of Extension. But the thing that keeps us or holds us back, I think, from becoming world-known is this lack of communication and this sense of trust that it creates.

The same specialist also noted:

Communication is based on honesty, complete and total. And we're big people out here, and if there's some bad stuff going on, we can handle it. We have that right to have knowledge so that we can be positioning ourselves so that so we're not left in the wake. And I think without the communication, stress begins to develop. And this stress creates fear, and fear creates a lot of bad stuff. So, just honest communication is all it would take, I think, to make us feel really, really comfortable in our positions. We love what we do, I know we all do, or we wouldn't be here.

Lack of clear and honest communication and understanding received significant mention of participants from all levels of the organization.

Resource limitations. While resources were a frequent topic of discussion, they were cited less frequently as a barrier itself to learning. Most often resources were noted in conjunction with funding to support face-to-face learning via the annual conference, in-service education, and other shared learning venues related to program and organizational issues. The resource issue was also imbedded in discussion of the reduced number of regional and state specialists as a result of budgetary constraints. Consequently, the aspect of insufficient time and busyness were cited as frequently as resources as factors affecting organizational learning.

Table 4.6

Perceptions of Other Barriers to Organizational Learning

Barriers to Organizational Learning	Organizational Groups					
	Top Leaders	Middle Leaders		Faculty		State Extension Council
	n=8	PD n=5	RD n=8	State n=22	Regional n=25	n=11
Trust	x			x	x	
Clear communication	x	x	x	x	x	x
Resource limitations	x	x		x	x	
Time	x	x	x	x	x	
Busyness	x	x	x	x	x	x
Individual Characteristics	x	x	x	x	x	x
Technology	x		x	x	x	

Lack of time. As participants focused on time itself as a barrier to learning, they talked about both a lack of time and how time was used. One top leader pointed out,

Those things take time and my concern for our organization right now is because everybody is so busy, that we're not tending to the relational side of organizational learning. That we're only attending to what I would call the task side.

Several specialists also noted that face-to-face meetings require more travel time than meetings held using phone, web, and video technology. People in a variety of positions also observed that organizational learning does take time and that time must be factored into the equation. For example, one PD admitted time didn't permit him to follow through on actions known to make a difference in fostering organizational learning.

Busyness. Time was closely related to busyness, a word used by several participants. The concept, however, also included a focus on crisis management and day-to-day operations (versus anticipatory and pro-active planning), and the workload. Participants spoke about their own situations, and state and regional specialists often indicated feeling that RDs and PDs were inhibited in promoting organizational learning because of these barriers. This regional specialist noted:

I think one of the key barriers to organizational learning right now is time. I honestly think that . . . when you take a look at the job description of the regional director, in particular, or the program director and the wealth of responsibilities that they have.

Top leaders as well as these middle leaders also identified time and busyness as a barrier.

The concepts of time and busyness were interesting ones as some people indicated they felt they were convenient excuses (maybe socially acceptable responses) for not engaging. Others felt time and busyness were an engrained part of the culture worsened by resource reductions. The outside peer coder observed that a number of participants appeared to enjoy whining and complaining. Most likely the time and busyness factors reflect all of these perspectives.

Individual characteristics as barriers to organizational learning. Factors noted as barriers that were related to characteristics of individuals included motivation, attitude, sabotage, and individual personalities. Motivation included the sense of individualism, especially noted by a top leader and a PD. One of these likened the motivational and attitude issue to the use of these words by organization members: “I don’t care what the rest of everybody does, but I just want it my way here. Or, we’re going to continue to do this because it’s easier.” A state specialist noted that this tendency comes from experiences of not being listened to or one’s input not taken seriously, thus creating “a

barrier to working together and moving in a new direction.” Another state specialist discussed the receptiveness of individuals “at the bottom of the food chain . . . to organizational learning. The age-old excuse, which is worn out, is, ‘Well, I’m just too busy doing my job to be involved.’ And there’s a lot of that.” A state extension council member also talked about the responsibility of individuals for engaging, in saying:

I think too, in order to learn, the volunteers, who are obviously critical at the county level, have to have an interest and take the time to learn because you can throw the council on it. . . . I could sit there for four years and not learn much of anything. And if you don’t participate, if you don’t go in there and look and listen. I have been there that long and I’m still learning things that are going on in Extension.

Other aspects related to motivation mentioned by several people were trust and fear. Trust has been discussed above, but fear is also related to trust and can be a strong motivating factor for learning or not learning. One top leader noted:

Fear is probably the biggest barrier that we tackle. I am relatively new to Extension, and I sense a lot of fear about trying to understand what it could be in the future. And it’s crippling for some of the staff. We can try as an organization to move things forward, create organizational learning about what we are and what we need to be but the underlying fear that mainly the folks that have been with us a long time are incapable of what we ought to be. That we have to cut a whole section of what we have been in order to become what we should be. I think there are lots of people who have very good intentions who stop short of exploring everything because it varies around “If we really work at the bottom line, we may not like what it looks like.” So we maybe stop short of that and say well we know there are things that we could be doing and we will get there when we can. That way we don’t have to make a lot of hard decisions.

Specialists and middle leaders used the term “negative attitude.” One state specialist with experience also as regional specialist related:

One way to very subtly sabotage something is to just to deliver a different message. You don’t have to be against it. . . . If we are looking at organizational barriers, I think as an organization when we take it from the top to the county specialists, we have extremely well-honed passive-aggressive skills in how to sabotage things and keep them from happening

without overtly saying that that's the agenda. And I think it's a major barrier. . . . A lot of times, we don't even acknowledge that it happened. The only way you might know it happened is you sit in meetings like this and listen to what people say or you have coffee with somebody. Then you begin to pick up that what they heard is different than what I heard. And then you begin to put all of that together.

Another state specialist added:

I almost hate to say this. The regional specialists and state specialists probably do more of that [subtle sabotage] than what I have ever seen regional directors or program leaders [directors] do. Program leaders [directors] and regional directors are very, "This is where we need to be at. This is what we need to do." And the state specialists, whether they are in research or extension or both say, "Well, yeah, but I need to do this, so here's what I will do to make that happen." The regional specialists think, "I will do what I have always done. I will just put a few extra words to make it look like I did this to meet this need."

In addition to the lack of trust, comparison of these insights with the examples of effective learning would suggest that there are competing interests, a lack of opportunity to engage in dialogue, and potentially a feeling of powerlessness being expressed. Finally, a few participants shared that some people's personalities are more likely to prevent them from fostering shared learning.

Technology. Given the preference for face-to-face communication and learning in the organization, the discussion of technology-related barriers was to be expected. Participants talked about technology as a barrier in two general ways. The first was related to the appropriate use and deliberate choice of technology. In discussing this, often they mentioned the ineffectiveness of specific technology, e.g., interactive television, as a result. Some participants also shared their discomfort with use of certain technologies because they lacked training. Most often cited was training in the use of Centra® by state and regional specialists and effective use of ITV by state specialists. Generally regional and state specialists shared technology as a barrier to organizational

learning; yet, the lack of training or use by some RDs or PDs indicated technology was a barrier for them too.

Summary

These barriers of culture, structure, leadership, individual characteristics, lack of trust, lack of clear communication, limited resources, insufficient time and busyness, and technology are obviously related and intertwined. Participants often acknowledged these relationships. Together, one is able to observe that the context of change in which this study was conducted also contributed to the perceived barriers. Yet looking at each separately has been instructive to understanding what was occurring in the organization.

I have devoted considerable attention to the perceptions of barriers to organizational learning. Not surprising will be the resurfacing of many of these same concepts when participants discussed how RDs and PDs were fostering organizational learning. However their abilities to foster such learning may indeed be limited by some barriers beyond their control. Understanding the barriers also sharpens the ability to recognize what these leaders have done to overcome or lessen the barriers to organizational learning.

Summary: The Nature of Organizational Learning

Participants talked about the process of organizational learning as a shared process of learning that intricately links individual learning with collaborative learning as a whole. They noted organizational learning serves the purpose of carrying out the mission of the organization, maintaining its culture and history, and dealing with internally-induced and externally-imposed changes in order to survive. They highlighted experiential and tacit learning, reflection, deliberation, creating mental models,

teamwork, experimentation, and communication as critical aspects of organizational learning. The data also reflected adaptive and transformative learning, learning occurring in structural directions horizontally and vertically, and informal as well as formal organizational learning. Participants' descriptions also reflected the complexity, layers, and diversity of organizational learning. Some learning is program specific, some is geographically specific (based in the regions), and some is related to the whole organization. The learning encompasses content as well as processes, the organization's mission and culture, and the education content itself delivered as part of the organization's mission. This cooperative extension organization is complex and diverse. The nature of the organizational learning occurring in the organization reflects the complexity and diversity found within the organization. This complexity and diversity appeared as a strength and a barrier to organizational learning along with aspects of the organization's culture, structure, leadership and use of technology. Also noted as barriers were lack of trust, lack of clear communication, insufficient time and busyness, and limited resources, as well as the environment of change in which this study was being conducted. This context of understanding of organizational learning is the foundation upon which I will look at the roles that RDs and PDs were playing to foster organizational learning.

Part III: Role of Regional Directors and Program Directors

in Fostering Organizational Learning

The second research question addressed by this study was: What are middle leaders (regional directors and program directors) doing that fosters or inhibits organizational learning in Extension, as perceived by themselves, regional and state

faculty, regional extension council members, and top leadership? Participants were asked to share specific examples where they saw RDs and PDs fostering organizational learning, what they had observed these leaders doing to bring about organizational learning in Extension, and what they thought the role of these two sets of leaders should be. In addition, they were asked to comment on whether they saw RDs and PDs creating professional learning communities. As I analyzed the data, I took into account what participants had also shared about definitions and the nature of learning, effective and ineffective learning, and barriers to organizational learning in the organization. In the following, I will share the findings with regard to the perceived roles of RDs and PDs in fostering organizational learning and the means or practices by which they effectively have carried out these roles and fostered knowledge creation organizational learning as defined and described above. How they have addressed or overcome some of the barriers to organizational learning will be integrated into the presentation of the findings.

Review of the Context

Before turning to the data related to the roles these leaders played in organizational learning, in review, the eight RDs were located in an office within the geographic region of the state for which they have responsibility. The PDs were located on the primary campus within the academic unit or college, with the exception of the 4-H Youth Program, which existed as an academic center on the campus and reported directly to the extension director. Extension included five program areas—agriculture and natural resources, 4-H/youth development, human environmental sciences, business development, and community development—each led by a PD. The five PDs interviewed represented the four areas, one of which had been served by two leaders in the past five

years. As noted in Chapter Three, no participants were included in the program area for which I serve as the PD.

In the earlier relation of findings, I have already shared the common confusion that surfaced with regard to the clarity and distinction of the role of RDs and PDs. Despite acknowledged confusion in the past, top leaders, RDs, and PDs were generally more articulate about specific roles. Some state specialists from several program areas also were more articulate and hopeful for future role clarification. In looking at the context, one of the tasks handed to the combined group of RDs and PDs by the interim director within several months of the consolidation (which had commenced six months prior to launch of the interviews) was to study and redefine the roles for each group and develop position descriptions. This work was done in a collaborative manner with a facilitated group process that engaged all of the RDs and PDs resulting in two completed documents (See Appendix F) within one month of the commencement of interviews with top leaders, two months of interviews with the middle leaders and state extension council, and five months of the start of interviews with regional and state specialists. Those state specialists who recognized change was potentially afoot indicated communication had occurred with their PD. Therefore this study was occurring during the development and implementation into practice of the new organizational knowledge regarding roles. During the months of interviewing and analysis, RDs and PDs met several times to determine specifics and create policy for implementation of clearer roles especially with regard to performance expectations, evaluations, and professional development for regional faculty and planning for program coverage and staffing.

Roles of Regional Directors and Program Directors

Role differentiation. In reviewing the perceived current and desired roles of RDs and PDs, the first and most obvious distinction that repeatedly surfaced was the focus of their primary responsibility or function. Reflective of a matrix organization, RDs dealt mostly with the region for which they had responsibility, which included county and regional councils and staff as well as regional specialists. The RDs' focus on work with the county and regional extension councils was highlighted significantly as was their role in working with the county program directors. PDs dealt within academic content areas on a statewide basis. Equally as striking were the similarities in function that these two sets of leaders play. Notably both RDs and PDs, by nature of the mission of the organization dealt with educational programming. But certainly their functions did not end there. For example, the words of a top leader indicated the richness of the data with regard to the roles that PDs play,

I think that the easiest dodge on program directors would be (and I don't think we have necessarily experienced that to any degree), to say 'Well, I deal with programs and I construct and I develop curricula and see that somebody is in the network to deliver that curricula,' as if there weren't integral human processes to go along with that.

Especially with the organizational consolidation, the perception that RDs' purview was the region to which each was affiliated and PDs' purview was the program for which he or she had responsibility, as expressed by most participants, is a little simplistic as RDs have been designated by top leadership to provide leadership for specific projects or organizational knowledge creation such as the Council Leadership Development Program and the County Program Director Training. Likewise with the organizational consolidation, PDs had each taken on roles for coordination of program

functions across the spectrum on programming, e.g., annual conference, in-service education, evaluation, etc. However, the way that the RDs and PDs functioned in these roles was similar to their mode of operation in the regions and programs, as noted by participants.

Given these similarities in roles carried out by the RDs and PDs, despite different contexts, I have divided the functional roles identified for middle leaders into four basic categories for the purpose of better addressing and understanding the work of the RDs and PDs. These four functional categories are designers, enablers, evaluators, and bridges. Figure 4.1 depicts these four super-functions. Following is a discussion of the roles identified by participants for the RDs and PDs, the differences in focus between the RDs and PDs, and the differences that emerged between perceived current roles and desired roles for the two sets of leaders. I have provided examples shared by participants to indicate the mechanisms and approaches (philosophies) that RDs and PDs employed to carry out these roles.

Regional Directors and Program Directors as Designers

Providing leadership to program design and implementation. In fulfilling this designer function, RDs and PDs were serving in roles that provided overarching design or architecture and promoted the big picture and multi- and cross-disciplinary programming and learning (See Figure 4.2). One RD summed up this activity in the following way:

I think the program leaders [directors] and regional directors have to, or should, distill the vision from the top end—the big organizational, big picture, nationwide, regionwide, statewide, whatever—that you take that and distill it and communicate it to the folks in the field, whether it is subject-matter based or regional/organizational based.

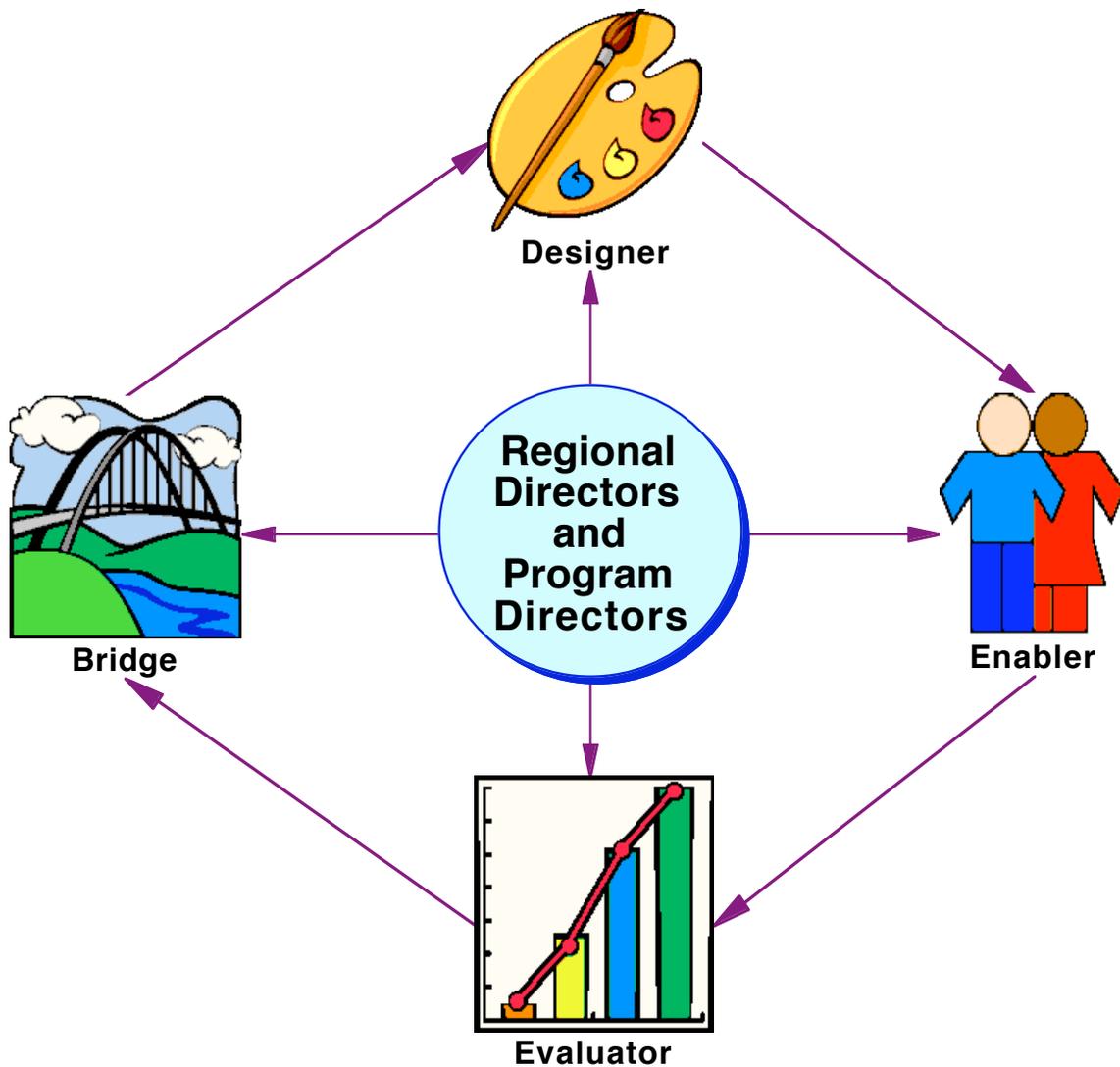


Figure 4.1. Key functions of middle leaders in fostering organizational learning.

Several state specialists noted that RDs set the tone for regional operations, regional faculty, and regional meetings. PDs indicated RDs created the vision and means for interdisciplinary programming in the region. A PD commented on one RD he felt had been a master at fostering organizational learning. He noted the essence as:

basically sitting down and engaging those that are expected to do something and to some extent providing them the resources to learn as a group based on how they're going to do it and what they're going to do to implement that process.

Top leaders said that regional directors “develop shared vision and create a democracy where people have a voice.” Another top leader observed that RDs:

set the vision and then give them [regional specialists and Extension councils] some learning to figure out what the issues are, building the capacity of the group and then try to help them figure out the steps and plan as to how they’re going to get toward that vision.

Participants consistently indicated that PDs provided leadership for academic content areas, created the vision for and set the direction for programs, provided a “skeleton” for programs, and defined and shared program priorities. Examples included PDs having created strategic plans by which they operated, having created shared program vision and direction by engaging regional and state specialists and stakeholders in a collaborative process, shared program vision and intended outcomes for programs, oversaw the development of program logic models by state specialists for adaptation in the regions by specialists, and created “message map” templates for communication of programming in the state and regions. One top leader also indicated PDs “move people along in understanding what Extension is about.” An RD, when discussing the role of PDs vis-à-vis RDs in rolling out a statewide learning activity or change, stated:

[T]he program directors typically provide the learning platform for making that connection. It’s the new language, the new technology, the new whatever integrated together in a different way so that we can all come together on common ground so that we can move forward.

One top leader pointed to them as able to broaden or narrow state and regional faculty views, while one regional specialist shared:

I think of them as change agents. And what I mean by that is that no organization stays the same. Because of their liaison responsibilities for the university, they have to be the people that implement the change or at least push the change in the organization. And as a result, no one likes change any less than I do. I’m not a person that relishes change. So, as a result, they’re not always looked on as the good guys or the guys that

know what is going on. And sometimes they may look out of touch with what the rest of the staff is doing. But in the end they have to be the ones that implement the change, and they have a tough job.

Promoting the big picture and multi-disciplinary programming and learning.

Keeping the big picture in mind and promoting and fostering the multi- and cross-disciplinary programming was a specific area highlighted for both RDs and PDs. Because RDs provided leadership over a geographic region, they were noted for creating means, such as time at the regional meetings, for specialists to share what they were doing and learning. Several state and regional specialists highlighted how one regional director had purposefully begun to invite state specialists from all of the disciplines over time to present via ITV at regional faculty meetings in order to build cross-disciplinary understanding. Others noted how RDs had often created teams representative of the multiple disciplines to work on issues or programs in the region.

Specialists, middle and top leaders also noted the role of PDs in fostering the big picture and crossing disciplinary lines. One PD indicated:

Part of my job as a program leader [director] is to look across the organization and say, "Is this an area where we need to grow and learn? where we might be vulnerable?" And I ought to be proactive in talking to other people ... because you have the same issues that we had. And so I, look at it as those champions also sort of being responsible for helping other people learn and bringing them along, finding that common cause that we ... all should be thinking about.

An RD noted that when PDs met with regional and state specialists:

Not only do they share among themselves what's going on in their corner of the world and what they're working on professionally with regard to community decision making, but [they] get to paint a picture to them at the national level, maybe even international level, . . . multi-state level, and [they] provide that leadership to them that helps them see the bigger picture.

Regional and state specialists noted that PDs also fostered cross-disciplinary learning within the program they served. PDs acknowledged responsibility for working with each other and specialists on multi-disciplinary programs such as water quality, grass-based dairy production, and a host of youth programming. One PD accomplished this by requiring a program start-up to engage multiple disciplines on the team. Others did so by constantly working together and showing faculty they were serious about the collaboration.

Regional Directors and Program Directors as Enablers

Much of the discussion of the functions provided by RDs and PDs embraced the aspect of enabling and empowering (See Figure 4.2). RDs primarily focused on enabling regional faculty, staff, and councils. PDs focused mostly on enabling regional and state faculty and partners at a state level. Terms used by participants included “encourage,” “mentor,” “model,” “empower,” “support,” and “bring together.” These roles appear to be significantly tied to the creation of shared learning and the nature of organizational learning, which were discussed in detail earlier. I will, however, describe each briefly and provide examples from the interviews with participants.

			Position	
	Role	Definition	Regional Directors	Program Directors
Designer	Designer Builder Director Conductor	Provide vision; set tone; support and guide implementation; focus on carrying out vision/mission of organization	Establish vision for regional interdisciplinary work; implementation of programs and vision within the region	Establish vision and direction for program statewide; determine program priorities; guide program and curriculum development

			Position	
	Role	Definition	Regional Directors	Program Directors
Enabler	Encourager Counselor Coach	Provide feedback and support, counseling and encouragement especially regarding programming	Focus: regional faculty/staff/ county program directors/councils	Focus: state and regional faculty/staff and partners engaged in specific programs
	Mentor	Choose official mentors; focus on sharing and imparting culture to new staff and faculty	Focus on regional faculty and especially orientation and enculturation of new regional faculty	Focus on state faculty and especially orientation and enculturation of new state and regional program specialists
	Convener	Bring people together, provide opportunity for dialogue and shared learning; provide training opportunities	Focus on local and regional faculty, staff, councils, stakeholders; inter- and multi-disciplinary	Focus on disciplinary content (may still be inter- and multi-disciplinary); state and regional faculty and state/national stakeholders
	Facilitator	Structure, and guide processes for shared learning and dispute resolution	Focus: regional faculty and staff, councils, local partners	Focus: state and regional faculty, partners, campus colleagues (non-Extension)
	Model Learner	Model/lead by example co-learning, teamwork; engage in professional development; challenge mental models	Primarily for regional staff and faculty	Primarily for state and regional program specialists
Evaluator	Administrator Supervisor Boundary Setter	Ensure organizational requirements are met; distribute resources; key focus is educational program	Focus: administrative/ supervisory regarding personnel issues; conduct performance appraisals	Primarily focused on program and funding requirements, provide input into performance; set standards
	Evaluator	Ensure effectiveness of programs and work as team of middle leaders	Focus on regional faculty with regard to program effectiveness in local areas	Focus on programs with regard to effectiveness for legislators, grantors, etc.
Bridge	Environment Scanner Analyst Filter	Scan environment for trends; analyze, condense, filter, and share information and knowledge	Focus on regional information/needs as well as organizational information for regional faculty/staff and councils	Focus on national and statewide issues, program successes, and analysis for state faculty and for program specialists statewide;
	Resource Broker Connector	Provide linkage to content expertise and access resources	Focus on resources development at local and regional level	Resource development and funding for statewide programs (and multi-state)
	Liaison	Communicate and listen up, down, and across the organization, with other organizations	Between PDs and regional faculty; councils and faculty; also with local partners	Between state and regional faculty; regional needs and colleges; also with partners
	Advocate	Advocate for those served, for programs, and for Extension organization	For regional faculty/staff/ councils and local issues/needs/programs	For state and regional faculty, campus academic units, programs

	Role	Definition	Position	
			Regional Directors	Program Directors
Bridge	Advisor	Serve in advisory capacity, officially and unofficially	To councils, local/regional organizations, administration	To colleges, administration, state/national organizations
	Collaborator	Build dense network of shared learning/collaboration within and between PD and RD groups and across state and regional lines	Bridge between state/campus and local/regional councils, faculty/staff and commissions; local and regional partnerships	Bridge between state faculty, campuses, and local faculty and needs; state and national partners; multi-region and multi-state

Figure 4.2 Regional and program directors' roles in fostering organizational learning.

Encourager/Coach. Specialists, middle leaders, and top leaders all used the terms “encourage” and “coach” to describe what RDs and PDs did to foster organizational learning. Several regional specialists also used the term “cheerleader.” Examples included encouragement for specialists to engage in specific professional development organizations and activities, present at a conference, or participate in the State Extension Leadership Development program or the Community Development Academy. Middle leaders encouraged, in part, by sharing the benefits of such participation. Specialists noted being coached and encouraged to try new things and engage in specific programming or teams, while being assured that they would be supported for taking risks. In many cases, this involved PDs creating an environment and culture where state specialists also encouraged regional specialists and each other. Specialists indicated middle leaders provided encouragement by showing genuine enthusiasm for what specialists were doing.

One state specialist spoke about a PD who was “qualitatively different” in fostering a learning community.

Part of it was the dog and pony show she took us [on]. She always kept abreast of what we were doing. I felt like when I sent her my program brochures or descriptions of my program, she actually read them and talked about them to other people . . . and made much more intentional efforts to communicate that up the ladder and to also kind of communicate it out. . . . She prided herself on motivating people and was very intentional about how we felt things were going. I felt like I could do anything. I could screw up totally, and did a couple of times. I was never really in trouble. She was there to fall back on and to help me figure it out, . . . a [safety net]. . . . She also made me feel much stronger than I felt. . . . She made me feel like I could do about anything I wanted to do if I set my mind to it. And she was more of a cheerleader and a motivator.

Similarly, participants indicated encouragement occurred through counseling of specialists as part of performance and program reviews, as noted by this specialist:

It's through individual development plans and the use of those where you annually sit down and target some goals and what the specialist is going to do, what interdisciplinary teams they might be participating in, who's on their learning team together. I think that was and is a really good system. Through the performance evaluation system I think there was a lot of counseling that I experienced. . . . looking at the interdisciplinary teams and contributions and what we have learned and that type of thing.

While few people specifically used the term “encouragement.” When speaking of RDs and PDs allocating funds, highlighting and acknowledging people’s willingness to try despite failure, noting successes, creating incentives, etc., these and many other actions discussed throughout were clearly part of the encouragement activities of RDs and PDs.

Specialists and Extension council members specifically identified RDs as coaching with regard to the handling of local politics, carrying out the county program director function, local fundraising, county council development, and getting started in a new program. Another example shared was the establishment and encouragement of the use of a regional library with resources for program and team development. One RD shared a conscious decision to encourage faculty by sending handwritten notes.

Mentor. The RD and PD role of mentoring surfaced in two contexts. First, they chose regional and state specialists to serve as official mentors and coaches for new regional specialists. With regard to this aspect, choosing appropriate mentors was seen as important to the transfer of organizational knowledge and experience. Specialists and RDs in particular, talked about the RDs having generally given detailed and consistent attention to new employee orientation to Extension, the selection of appropriate mentors who would follow through in their duties. One RD talked about purposefully sending new regional specialists to spend time with seasoned specialists in order to observe best practices and learn from experience.

The second aspect of mentoring was engaging in the activity of mentoring as a middle leader to other middle leaders and specialists. One RD indicated having spent time with other RDs to learn from their work. Much of the mentoring was informal. Activities reported by participants included RDs and PDs providing professional reading, encouraging participation in specific professional development, and suggesting certain courses of action, all closely related to nurturing and to encouraging.

Convener. The role of convener was often mentioned as “bringing people together” with reference to both RDs and PDs. As presented earlier, the modes for creating shared learning were varied. The middle leaders all employed face-to-face modes and telephone conferences. Some were cited as using ITV, Centra®, and electronic updates well. In the latter, what was key was how training was provided and how well they paid attention to using the technology to accomplish the goal at hand. In other words, they chose the means appropriate the situation and needs. For example, several RDs and PDs talked about how their colleague’s were using and promoting the

use among their faculty of Centra® for committee meetings, training, updates, and shared learning around a book or learning topic.

All of the RDs brought together regional faculty for regular, at least quarterly, regional meetings. These involved some aspect of face-to-face and sometimes also involved the use of other technologies to connect subparts of the region, top leaders, PDs, state faculty or other speakers (as described earlier). Some RDs were cited for having convened county program directors regularly to share and discuss their issues. The state extension council members noted how RDs supported the convening of extension councils for training. RDs also discussed having convened regional teams to participate in the training in order to customize and deliver this training locally.

PDs were cited for having convened faculty for program training, dialogue, and sharing within their program category via face-to-face at least once per year. Several specialists noted how this activity had torn down some of the silos between subprograms within program areas. Specifically, participants noted that PDs brought together state and regional specialists and empowered them to identify opportunities, develop programs, and provided resources (e.g., travel support) to do so. Several mentioned the importance of such functions in connecting regional specialists to the research base located on the campuses. Several regional specialists noted that PDs fostered communication between state specialists and regional specialists. Several top leaders observed, however, that what seemed most effective in fostering learning were those gatherings that were smaller in number and held monthly. Specialists as well as the PD in one program area indicated that inclusion of program partners from other higher education institutions was also a regular practice.

Each PD also convened other groups on a regular basis. For example, several engaged an advisory group comprised of regional faculty or regional and state faculty in the case of larger, more complex program areas. Several convened program groups on a regular basis through Centra® or telephone conference calls. The nature of these meetings varied, including information updates, sharing of learning, and actual dialogue to build shared understanding and create group knowledge. All program areas convened the state faculty on a regular basis (Three program areas did so monthly and one quarterly.) for dialogue, input, sharing, and in most cases, learning together and jointly developing an appropriate course for action. Larger programs encouraged departmental or divisional meetings and held less frequent whole program meetings.

In addition, PDs and RDs pulled groups or work teams together to work on specific projects or programs, sometimes cross disciplinary. In fact, effective examples that were shared often involved intentional inclusion of multiple disciplines, even within program areas. This aspect was discussed previously in relationship to promoting the big picture in designing and implementing learning processes. These various actions by PDs and RDs to convene and include a representation of perspectives were acknowledged by the array of participants.

Participants provided insight into the nature of intentional efforts to foster professional learning communities. Most saw the structures to be in place via the annual conference, the in-service education offerings, and the various types of meetings of regional faculty and program faculty. Some noted the shared organizational learning that occurred in these settings. However, many noted that this time in meetings was not always used to foster in-depth sharing and open dialogue to seek common understanding,

to probe different perspectives, to determine what was learned, and to identify and commit to application of learning.

Figure 4.3 depicts some of this complexity and overlap of learning, showing how RDs and PDs played a critical role in convening, facilitating and supporting multiple groups that met and engaged some aspect of shared learning on a regular basis. The program learning community (as well as sub-communities) was facilitated by the PD and comprised state specialists, often other campus faculty, regional specialists (and sometimes paraprofessionals), and often partners from outside the organization. PDs also fostered learning communities at the state level with campus faculty, both those with and those without a formal Extension appointment. In addition, RDs supported communities of learning within their regions with regional specialists and staff. In some cases, they

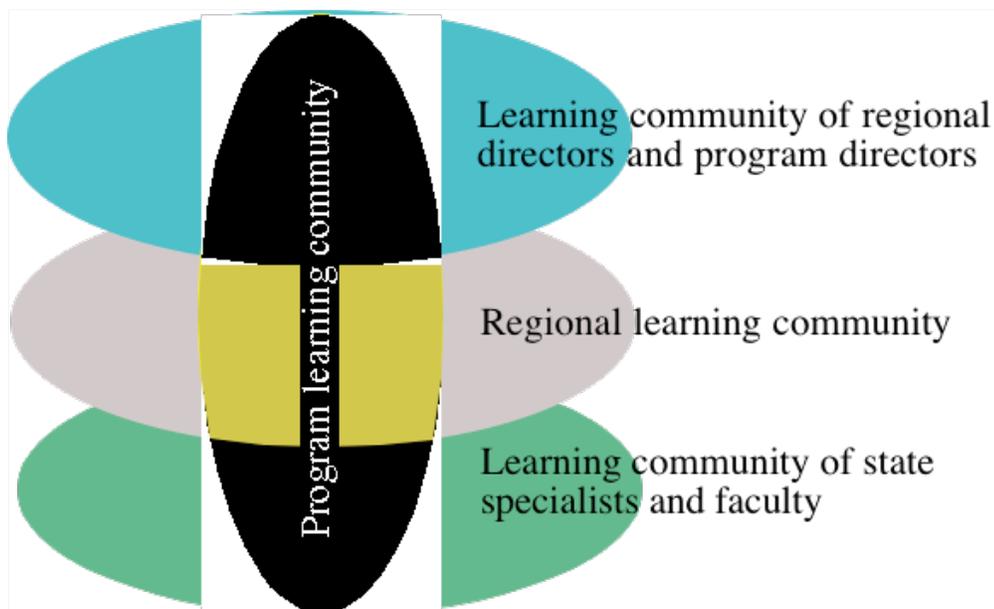


Figure 4.3. Middle and front-line interface of learning communities in extension.

within their region around multi-disciplinary programs, regional issues, and disciplinary programs. For the sake of simplicity, the diagram in Figure 4.3 does not depict these sub-communities.

This interaction of RDs and PDs was fostered, in part, through their engagement in middle leadership learning communities. The PDs had begun strengthening relationships among themselves and to learn together via their formal monthly meetings and informal breakfast meetings. At the time of this study, the RDs were meeting as a group and had just begun to operate as more of a learning community—teaching each other, carrying on dialogue and shared learning. In addition, the two groups had met jointly in relatively frequent work sessions since the consolidation and also participated in the more formal Program Leadership Council. RDs and PDs also interacted on a regular basis with the top leadership team separately and also as part of the Program Leadership Council. These interfacing learning communities of RDs and PDs as groups are portrayed in Figure 4.4.

Facilitator. Participants also identified the facilitator role as another key one to fostering organizational learning. This role was described as one of structuring and guiding processes for shared learning and fostering inclusive processes. This included designing the processes for this purpose. In essence, RDs and PDs created a structure for conversation and dialogue; shared development and testing of concepts and knowledge; and shared planning, implementation, and evaluation of programs and processes.

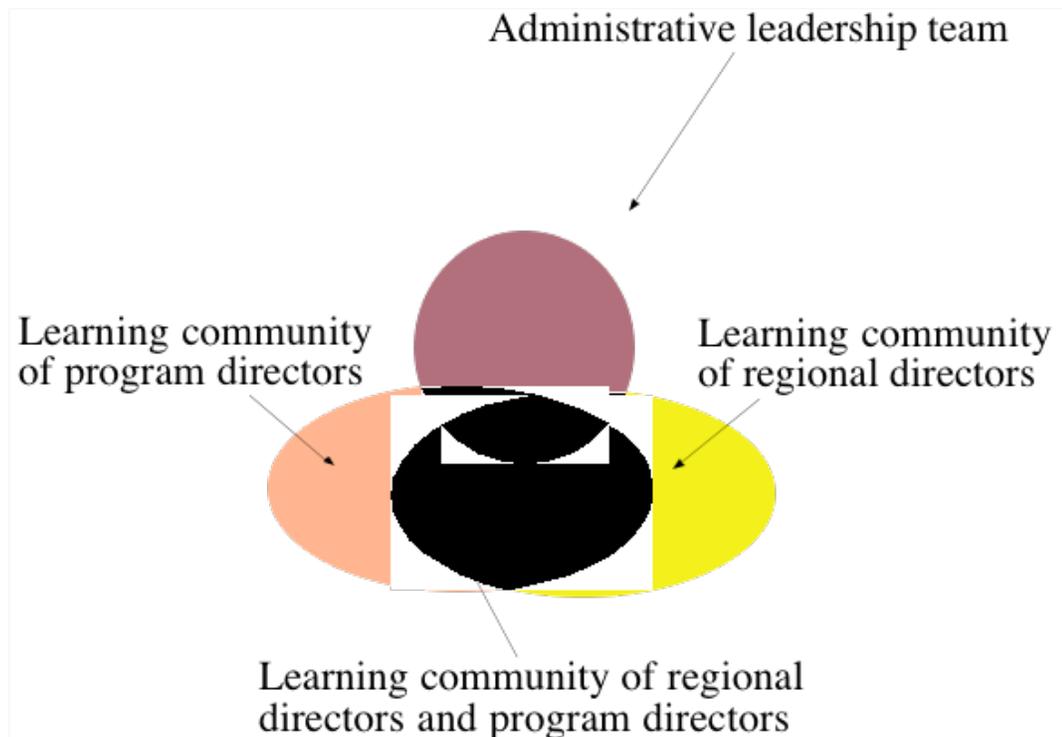


Figure 4.4. The regional director and program director learning communities.

Participants cited how RDs shaped the regional meetings, some very purposefully creating “deliberative processes” for engagement in dialogue and decision-making. One PD observed one of the RDs having “brought together all the various specialties, county extension councils, plus the regional council members and walked them through a very group-based deliberative process and designed what the staffing pattern is within their region and what the priorities ought to be.” Several top leaders also commented how several RDs effectively brought people to the table, got the issues out in the open, facilitated discussion and the coming to a resolution. Extension council members also talked about these same aspects, especially noting the RDs role in helping the organization “get over the flat spots” created by funding crises, personnel issues, or competing interests. Several RDs themselves shared how they asked key questions to facilitate dialogue and learning in these settings. Participants commented on RDs

“mediating” and “umpiring” disputes between various parties, and indicated that PDs got involved in this mediation when the subject was program-related.

Middle leaders, specialists, and top leaders commented how PDs created processes for input, for various perspectives and voices to be heard, and for decisions to be made regarding direction for goals, implementation, or recommendations. One top leader noted how PDs focused on team building in retreats and meetings with state specialists and regional specialists, observing they paid attention to creating a comfortable environment for sharing. Another top leader commented on the importance of the PDs facilitating learning among faculty as opposed to bringing depth of knowledge in a subspecialty area to the PD position:

I don't think that the set of skills that are required of the program director [and] ... being part of a learning organization, are unique to any category.... You have to have an understanding, appreciation and know how to do program development and curriculum development. Being the resident expert, I don't think is as important as understanding how learning in the organization can take place.

Modeling and demonstrating learning. One PD commented, “We need to model what we expect.” Another PD expounded on this concept of modeling behavior conducive to organizational learning with these words:

[T]here is a culture created by our Extension director that that is valued and welcomed and appropriate. And I think then we as program leaders [directors] have to create that same culture and atmosphere for our own faculty in our departments or regional specialists or assistants or volunteers or clients and people--that there's a culture that says everybody has a place to contribute in helping our organization grow and learn and be better. So I see that little group of program leaders [directors], we have given permission tacitly to take that role on ourselves to say, “Oh here is what I think needs to happen. Or here's an issue.” And that we're willing to learn from each other too. Certainly, if we [program directors] can figure out how to be a collaborative learning group, then that's going to model. I'll go to meetings with program leaders [directors] and I'll think,

“Oh, you know what, I need to come back and talk to Jim and make sure he’s doing this with the folks in the College of Agriculture.”

Top leaders also talked about the importance of modeling by middle leaders. In discussing middle leaders as key role models, one said, “Not only are they modeling behavior to each other and to myself, but they are modeling that behavior to external audiences as well on how the university functions and how you respond to different situations.” Another placed high value on a specific RD who was

modeling the behavior . . . being a learning organization up and down the rungs . . . empowering their faculty with the decision-making and ownership of program . . . whether in a group setting or in an implementation setting. It’s really sort of carrying the persona of the organization in some order in large part.

Another spoke of a different RD modeling the behavior of brokering and finding persons who could assist. This same top leader concluded, “To be the best, to create a learning organization, it actually needs everyone at the top modeling it. Everyone. It needs to be everyone in the middle modeling it. I don’t think that’s the case yet.”

RDs also talked about modeling in regard to encouraging change and functioning as collaborative learners. One RD discussed viewing himself and fellow RDs as co-learners with faculty, noting:

We were encouraging others to come and be a part of [the new programming effort] and to learn with us and to be willing to do things differently, something they might consider risky. They may have to do something that might actually become controversial or create conflict because the established community didn’t want us to do it.

Another RD related modeling to the concept of setting the tone and creating an environment implicitly through the attitude conveyed:

I believe that many times we as regional directors may underestimate the influence that we do have on regional faculty as far as their own demeanor

and fostering a good working environment. Our own attitudes translate many times into the field--whether we're optimistic, whether we're pessimistic, whether we appear to be a strong advocate of the programs and the efforts that field faculty are doing.

Other RDs and PDs discussed the importance of coming together as a group of peers to learn and how this conveyed a message to the rest of the organization.

Another aspect of modeling learning was that of the middle leader in teaching. A top leader noted that RDs were involved in educating county Extension councils. One regional specialist also noted the aspect of RDs modeling and demonstrating effective educational practices. She said,

There are lots of opportunities for our presentations in our regional staff meetings and all of our trainings to model good teaching practices. And that's what I find to be the most helpful. And sometimes they're not as helpful because you can see what sometimes doesn't work.

Regional Directors and Program Directors as Administrators and Evaluators

All of the participant groups noted the administrative and evaluation functions in which RDs and PDs engaged (See Figure 4.2). While variation existed in roles of RDs and PDs by virtue of their positions, both fostered organizational learning through their administration and evaluation roles.

Supervisor/Administrator. In this role, RDs and PDs carryout the administrative functions of the organization that included personnel, budgeting, reporting, and setting of standards for program and personnel performance. RDs focused on directly supervising regional specialists and therefore dealt with a number of personnel issues, including the conduct of personnel evaluations and working with specialists to establish annual goals and plans of work consistent with program direction and general expectations of PDs. As several regional specialists noted, the RDs "gave permission for some of us to work in

different areas that were a little bit outside of programming areas and develop the programs and make those things happen.” Regional specialists also commented on the role of the RD in giving approval or official blessing for their work in statewide or special program efforts.

In other examples shared by several top leaders, RDs had set clear expectations for implementation of practices or programming in their region. Several noted how one RD had set the expectation for regional specialists to use technology at least four or five times in the year for program delivery. They also pointed out that the key to this expectation, however, was its coupling with the provision of resources, coaching, communicating clearly that failure was okay, and engaging the regional faculty in sharing during regional meetings what they were learning as they worked in teams to adapt or develop programs and deliver them using available technologies. Two other RDs pointed to their work of recording what was being learned and documenting the processes and organizational history in their positions. They also highlighted how they had put these processes in a central location for easy access electronically by staff and specialists. Similarly, they mentioned putting expectations in writing so that they were clear.

The role of PDs was somewhat different in that they supervised few people directly, with the exception of the 4-H Youth Program state specialists. PDs focused on administration of resources for training, program resources and budgets, and meeting funding requirements. They also set the performance standards for regional specialists and provided input for performance appraisal and plans of work for regional specialists and, in most cases, for state specialists. When specific personnel issues arose related to

programming, they worked collaboratively with the RDs to resolve it. PDs also engaged in policy setting and documentation.

State and regional specialists, in concurrence with what PDs shared, noted that PDs had involved them in the process of determining appropriate performance expectations for their area during the previous year, albeit some variation occurred by program and its structure. PDs also reported negotiating with RDs for regional faculty to have sufficient time to devote to specific innovative programs.

Certainly an important part of their leadership and administrative role was that of hiring new regional and state specialists. PDs were involved directly (or indirectly by delegation of the task) in the selection of candidates for state and regional positions. RDs were key in the process of selecting and hiring, and working with local councils for their input in hiring of regional specialists. Therefore, both RDs and PDs played a significant role in conducting the process of recruitment, selecting, and hiring but also through their own voice in the process of choosing employees deemed appropriately suited to be the front-line for integration of research and program development and delivery.

A key aspect of this administrative role was the distribution of resources, noted as monetary, training or professional development, and time. For example, state and regional specialists as well as RDs noted that PDs provided in-kind support and funding for training and for work groups to come together to develop curriculum or program direction, and if needed, gave blessing to state specialists to spend time on specific projects. PDs also allocated funding for in-service education, often through processes of engaging state specialists to provide input for decision-making, and for topics to be covered at the annual conference. In one case, specialists noted that the PD had supported

a department's use of alternative funding streams for offering of training when the normal organizational venue was not an option. Others, including top leaders, noted that PDs played a key role in determining priorities for funding of programs and program support, i.e., in making determinations for investment of flexible funds for program enhancement and development.

Both RDs and PDs were noted as providing "release time" for specialists to participate in special projects, programs, professional development, etc. Another aspect noted was matching skills and talents of specialists with the environment or needs of a specific location or project, or "choosing the right people," as noted by one PD.

Evaluator. The role of evaluator was closely related to the administrator role but was highlighted by participants, especially as funding had become increasingly tied to results and impacts of programming. The RDs worked to ensure program evaluation at the local and regional level in ways that were expected to be consistent with the direction set by the PDs. They also showcased effective programs to internal and external stakeholders.

PDs focused, to a great extent, on defining program outcomes and expected results, measuring and determining program effectiveness, and sharing results with stakeholders such as legislators, federal and state agencies, grantors, partners, citizens, and university leaders. Certainly the top leaders expected and saw PDs leading the determination of program impact for their program area. Several top leaders, RDs, and regional and state specialists commented on the role that one PD had played in developing a reporting and impact documentation system for the program that also informed personnel performance while providing a learning vehicle for specialists to

monitor their own progress and learn from evaluations of programs. This PD also initiated a formal debriefing process to learn from and share what had been successful from programming. The PD relayed the following account:

Some of the ways that we've tried to do that in our [name] program is we have tried to formalize it a little bit. So one example is we had a faculty member who is doing a superb job in a rural community, and as a matter of fact, was extremely well connected with the key leaders, was producing at very high rate, was having significant economic impact and because her husband got a new job, she was leaving. So one of the things that we wanted to do was understand what were the attributes that caused that success. So we went in and did a formal debrief on her and what she had done for the purpose of looking at what she's been able to learn and then figuring out how to share that knowledge with the whole organization so that we can take those best practices and apply them. We've also done some debriefs where projects have failed. And once again, I think that may be as valuable, if maybe not more valuable sometimes, than the successes because it helps us understand where things go wrong and where we can learn from that to improve.

This example is one where the PD's evaluator role was integrated. The PD worked as the designer, provided resources, convened teams, required adoption, encouraged learning, and coached to help bring about improvements in conjunction with the evaluation.

The discussion about the evaluator role was focused on both formal and informal evaluation. Participants mentioned monitoring and feedback systems, outcomes evaluation, process evaluation, and process or quality improvement as part of the role being performed and expected. For example, several state and regional specialists noted their PD conducting an annual staff/faculty survey to determine needs, successes, etc., and then using that as a basis for altering and changing focus, training, or whatever was needed to strengthen the capacity of the program area in its work statewide.

Regional Directors and Program Directors as Bridges

The bridge function was also elevated as key to organizational learning by a large number of participants. In the words participants often used, the bridge function included carrying out roles of environmental scanner, broker, connector, collaborator, advocate, advisor, and liaison (See Figure 4.2).

Environmental scanning. Participants across the spectrum associated RDs and PDs with scanning the internal and external environments for constituent or customer need, trends, and opportunities. Extension council members identified this as one of the roles they saw RDs playing. An RD indicated that RDs' scanning and distilling was a key aspect of the bridging function, in observing:

They also need to take, accumulate, summarize, and accurately depict what's going on in the field, what the needs are in the field, what's going on with the councils, where councils and volunteers stand, what their needs are. Take those kinds of things and communicate them up as they have a chance to strengthen the understanding of the folks that are trying to work on the national and state level to bring some bridge to the state, national, international view and the local county courthouse view.

Specific examples of environmental scanning shared by participants in referring to PDs included keeping abreast of changes and research, sharing multi-state and national outlooks for programming, using information from scans to develop and guide the program decisions and direction, engaging a variety of perspectives for input processes. State and regional specialists cited their PD's annual conduct of an annual specialist survey to scan the internal environment. Raising up identified issues and trends to the faculty, RDs, administration, and outside groups was also noted as a role of RDs and PDs.

Broker/Connector. According to participants, the very nature of being a middle leader meant RDs and PDs were key in brokering resources and partnerships and connecting people and ideas at various levels. As I will discuss later, the fostering of learning appeared to hinge in part of their brokering of relationships.

One top leader described the RD as a “pivot point” by which communities were connected to the organization, and went on to say,

Having folks in those positions to communicate well and understand the value of taking the extra 10 minutes to explain to somebody why and why not is crucial to their feeling about the organization as well as their understanding of the organization.

State extension council members shared this perception of the RD and talked about the RD bringing issues and suggesting speakers to the regional council. A state specialist similarly related that RDs connected people often by showing up in person for dialogue and working on new “exploding” (emerging) issues and interests with state and regional faculty. Another state specialist discussed the role of brokering or connecting people in describing an RD who “recognizes talent in people and has a knack for bringing the right mix of people together to develop beyond where they are at that point.”

Participants also described the PDs’ role in fostering learning by creating an environment and space for connectedness, consisting of the formal and the informal. Examples such as the annual conference and in-service education have already been shared. State specialists from one program area related how their PD did this as they described regularly interacting as a group with the PD socially over lunch and having created silly traditions around birthdays in addition to holding monthly state faculty meetings for updating each other and support staff, monthly meetings for discussion of key topics and issues, and quarterly meetings with the advisory committee for discussion

and input. In another program area, the PD brought together the managers of key subprograms as a learning council monthly to dialogue and specifically learn together. For example, this group had specifically read and digested as a team the book entitled *The Five Dysfunctions of a Team*.

Many participants commented on the role of RDs and PDs in linking state and regional specialists or state and local programming. As noted earlier, PDs all brought regional and state faculty together regularly for interaction. One PD had established the system where each state specialist took responsibility for one of the eight regions and therefore served as a mentor for new regional specialists, regularly attending regional meetings, and interacting with regional faculty, etc. In yet another program area, regional specialists related how their PD traveled frequently throughout the state “to be in the thick of things.” These examples were but several that highlighted the essence of the connections fostered, and how RDs and PDs facilitated interaction, sharing, and collaborative learning. The comments of a regional specialist indicated this in saying PDs facilitated regular input from regional faculty on how to accomplish the goals set forward.

Others described how PDs regularly interacted with other levels and groups in the organization in a liaison role, to be discussed below. PDs also interacted regularly with outside partners and were often key in brokering and “closing the deals.” Similarly, RDs engaged in these activities for programs that were regional in nature and coached specialists in such activities specific to a county.

Middle leaders were also brokers and disseminators of information. Both the RDs and PDs used regular e-mail updates and newsletters, Centra®, telephone conferences,

interactive videoconferences (ITV), websites, and face-to-face meetings. What appeared to have made a qualitative difference was the mix of these, frequency, and the structure and opportunity for engagement in dialogue and application of information and knowledge. One example shared was the use of multiple Centra® conferences by a PD to share a new process, detail what it meant and how it would impact regional faculty, and then answer questions.

Advocate. The role of advocate, as portrayed by participants, evoked a sense of service to those programs or regions to which middle leaders were leading. In juxtaposition to the comments about fostering a silo mentality, the advocate role was described as one of sharing knowledge to build awareness and understanding within the organization and to make sure programs, regions, faculty or others were justly treated. For example, a top leader observed RDs served as an advocate for communities, councils, or the organization “depending on what is in the best interest of the organization from their perspective.” In another case, a state specialist shared how the PD had advocated for Extension as priority in with a department chair, noting:

He is excellent, but he has no Extension vision, care, and understanding. He is classical research and couldn't care less about extension. And if we did not have our program leader [director] hounding him to support extension, who knows what kind of support we would be receiving, but it would not be a priority. He [program leader] fights for us as a priority.

Other state specialists indicated their PD shared their programs consistently “up the ladder,” and with RDs, PDs, regional specialists, and partners. This sharing was done both formally and informally, as I have often observed in Program Leadership Council meetings, meetings with leadership, and regional councils, as examples. One PD also

identified the role of “advocate” and “champion” for programs, while others’ words reflected these concepts.

Advisor. While participants often noted RDs and PDs engaged in seeking input from others, they also mentioned these middle leaders played an advisory role in providing input for others on the basis of their knowledge of programs, regions, campuses, Extension, the organization, etc. In part, they represented the organization, serving on external boards and participating in other decision-making bodies. They also advised others within the organization—top leaders, RDs, PDs, etc. As one top leader pointed out, they brought their analyzed and distilled information forward and made recommendations regarding funding, staffing, and other priorities.

Liaison. While related to being an advocate and advisor, the liaison role included the aspect of being present, being knowledgeable and able to bridge different perspectives as a result.

One top leader noted of the RDs:

[B]y having a pulse of what the county councils are asking of faculty as well as what the organization as a whole is asking of the faculty, in some respects the regional directors are the liaison between both of those interests and help filter it and help advocate for either side depending on what is in the best interest of the organization from their perspective. So again they give us a perspective that we may or may not have at some of the levels. So to me those are the most important roles that they can play.

PDs indicated RDs transmitted and translated the vision and mission of the organization and supported program implementation and marketing. Specialists talked about RDs and PDs in a bridging and liaison role. Specialists noted how PDs used this liaison role to share what was going on in their programs with other PDs, RDs, outside agencies, etc. Other aspects shared included PDs attending regional extension council meetings to share

about program goals, curricula, and impacts and discuss how these interfaced with needs in the region. As mentioned earlier, this function was regularly and systematically covered in one program area, and coordinated by the PD, through a state specialist serving as the liaison to each region.

A top leader synthesized the PDs' roles of scanning, brokering, and serving as a liaison and connector, in these words:

But they [PDs] also have an understanding of what the current body of knowledge at the university level tells us that we could be and should be providing. What is the next item that might be of concern to us? Trying to move people along in understanding what our organization is about. Helping faculty on campus understand how they can contribute to the mission.... Say you are in Ag, you have relationships with different people who are doing research on campus, who are doing instruction on campus in a particular area of agriculture. Building relationships and some understanding of the next kind of thing that Extension should or could be doing. And trying to create some understanding of what that ought to be. I see program leaders [directors] that work with different parts of the university campus on particular projects and bring to people's forefront of their thinking that this is something extension could be involved with.

An additional aspect of this role was identified by state specialists, who noted that several PDs served as a bridge to the other campuses involved in the university system and Extension service. Some of the state specialists who participated in this study were state specialists located on those campuses. They noted that the PDs as well as the RDs located in those regions make linkages to faculty and administrators on those campuses. Acting as a liaison included communication and sharing across various boundaries and set the stage for collaboration.

Collaborator. Related closely to the brokering and liaison roles was the role of collaborator. In discussing collaboration as an essential feature of organization learning, participants identified RDs and PDs' critical role in fostering collaboration internally and

externally. Internal collaboration included that between the state and local levels, within regions, within programs, across programs and regions, across campus and campuses, and among the RDs and PDs themselves. As I noted in describing the nature of organizational learning, collaborative learning was described as a key aspect of effective organizational learning, especially transformative learning.

As an example among PDs, specialists as well as PDs commented on how different program areas or sub-areas worked together to create, deliver or evaluate specific programs because needs didn't always fall within discrete disciplinary or programmatic structural lines. Likewise, several specialists noted how RDs and PDs had supported multi-regional meetings for a program area.

One top leader noted how this collaborator role was the essence for RDs in this comment:

I think the ones that I have seen be successful are the ones that work the majority of their time at coalition building, working to strengthen those partnerships, to educate the partners so that they understand each other. My guess it's a responsibility that is not articulated a large part of the time as an expectation, but in fact, it is a very large part and should be. So, having that sense that each partner has to give up something and educating them—having them learn enough that they can understand if there is truly going to be a partnership “I am going to have to give up something that I want and they are going to have to give up something that they want.” A regional director just has to build a trust relationship with those partners in order for them to buy into that and become a part of that in a learning organization. I think it can't be forced on anyone.

Participants also addressed the significant role of PDs in work with partners, such as state and federal agencies, academics without Extension appointments, other states, and foundations. They discussed the work of RDs with partners primarily in the context of local governments (such as county commissions) and the extension councils. Their

work to develop partnerships also included encouraging specialists to work collaboratively with partnering organizations and groups.

One specific collaboration that was most often highlighted was that of RDs collaborating with PDs and how they both fostered this collaboration. Because this entailed the two groups who are the focus of this study and because lack of collaboration was mentioned as barrier as well, how RDs and PDs collaborate with each other to foster organizational learning merits special attention.

Collaboration between regional directors and program directors. One RD emphasized the aspect of collaboration between RDs and PDs:

[I]t will always be critical for program directors and regional directors to be in really close collaboration as it relates to the learning of the faculty, sending any information to the faculty. I believe as the program directors and regional directors work together whether it's specifically on programming or not, the regional director will be able to sustain that energy over a period of time because the regional director is in closer contact with the regional faculty than would be the program director. And so, being able to collaborate on all the efforts that relate to the regional faculty, the program director and the regional director collectively would be able to really strengthen the organizational learning experience of all of the faculty or staff. That would be one example I think that I would see as critical. I believe that it has been done, and yet there may be areas where that effort can be strengthened as well.

During the few months preceding this study, the two groups had worked together collaboratively to clarify their respective roles and set the stage for how they would interact with each other to support programming, handle personnel issues, work with regional specialists on performance appraisal, interact with extension councils, market programs, etc.

Also during the few months preceding the start of the study, PDs were working to establish program-based performance expectations for regional specialists and had

communicated with the RDs. When the study began, PDs were involved in reviewing and providing feedback to RDs and regional specialists on regional specialists' programming plans for the upcoming year. Many, though not all, of the RDs regularly consulted with PDs before sitting down to review specialists' performance each year. (After working together through the time period of this study and its analysis, RDs and PDs together established a consistent process that they have implemented.)

Participants from the various groups consistently noted how an RD and PD had met together to work out a specific issue and how they advised each other or consulted each other in establishing a grant-funded program. Specialists as well as some RDs and PDs cited how RDs and PDs would meet together with groups of specialists in a region to discuss program issues, determine program priorities, and plan for the general program in the region. One regional leader's perspective also reflected the collaborative role that RDs and PDs played to foster organizational learning:

The regional director needs to have a relationship with program directors, so they understand what their goals are and what their passion for learning is so that you can help connect them [with regional specialists].... [S]uccess comes when the regional specialist and the program director are trying to work together on a program. As the regional director, you may not be able to say, "I did thus and so," but you will know that you've helped with the networking and connecting.

Differences between current and preferred roles. When participants were asked what roles they thought RDs and PDs *should* play, their responses were similar to the functions that middle leaders were perceived to be fulfilling. However, the few differences that did emerge are worthy of noting. In general participants wanted, as previously highlighted, to see more collaboration and liaison work among the RDs and PDs. They also expressed the desire to see RDs learning from each other and working

together to create shared knowledge, policies, etc. A few expressed the same for PDs. For both sets of leaders, participants wanted to see more communication and listening, and genuine face-to-face shared learning and dialogue opportunities. Regional specialists expressed wanting RDs and PDs to spend more time building relationships with regional specialists and their constituents in the field, providing more brokering of knowledge, and opportunities for them as specialists to learn from each other (within the program areas and across program areas).

Top leaders and others observed the critical role that RDs played in relating to the county and regional extension councils. These councils were established by state statute to. In speaking about the expected role of RDs, one top leader noted how organizational tradition also played into this relationship with extension councils:

Now, if you want to talk about the roles of RD's in connection with county councils, a terrific achievement by a regional director would be the rejuvenation of composition of county councils. If I have 15 counties and I could take a fresh look at the composition of council members, and 5 of these counties would do it, I would consider that a big deal.

Regional specialists and the council members especially noted they thought RDs should devote more time to creating and sharing learning regarding work with county councils and supporting the county program directors (regional specialists who take on the additional duty of coordinating local relationships with the county council, local government, and supervising office staff). One regional specialist said she would like to see “more support for the county program directors. I think that that is such a critical position that sometimes just gets tacked on as a little side.” Another noted candidly:

I'm county program director too. . . . I came in really green. I don't know right now if I'm doing everything right or doing everything wrong. I haven't had any feedback; so, I don't know. Annual reports seem overwhelming to me because that's not a strength. A lot of my time gets

sucked into being county program director and I don't get to be a [content program] specialist.... I don't feel like I get enough support from other people to help me get things done.

Of note is the work that RDs had begun during the time of the interviews to sponsor training for the county councils using the curriculum developed by the Council Leadership Development Team. Yet as a top leader pointed out, as noted earlier, with regard to RDs

who really have concerns over how much are we going to develop councils and what does that mean? Well, you have to help increase their comfort level that it's okay to do that. Because until the comfort level is increased, you're only going to dip their toe in the water. And we may need as an organization to have more immersion in the water.

In addition, the interim director (by the time of the interviews of regional and state specialists) had appointed a work team led jointly by two RDs and involving top leadership, regional specialists, a PD, and county council member to determine the needs, develop and deliver county program director training that would be in synchronization with the council training.

*Key Underlying Themes in the Actions of
Regional Directors and Program Directors*

Even this wide array of roles and functions does not sufficiently capture the whole picture described by participants when they talked about what RDs and PDs did to foster learning and shared specific examples. What emerged from the data were several underlying themes, which cut across these functions and roles. These relate more to how middle leaders performed their roles and distinguished the examples of effective organizational learning. These core themes were building relationships, selecting the right people, communicating, caring, and building trust.

Building relationships. Extension council members and others talked about the importance of RDs “just showing up,” being physically present in order to build relationships and interact, especially with the regional council. Council members noted that some RDs, once relationships were established, maintained communication with regular e-mail and phone calls to provide updates and work out specifics. These same RDs also met face-to-face with the chair of the regional council to collaborate on meeting agendas and council training issues.

Likewise, specialists talked about RDs meeting with regional specialists, being open in communication, and touching base to just to talk. Several relatively new regional specialists indicated how they desired more positive feedback and interaction than just the annual performance evaluation. Some regional specialists noted how several RDs fostered the building of relationships among regional faculty by creating opportunities for specialists to socialize and have fun together. PDs had done the same with program gatherings at annual conference and as part of in-service education. Part of the ability of RDs and PDs to connect people appeared to be related to their skill in relationship building and networking with a wide array of people internally and externally.

Selecting the right people. As shared above, participants noted the role of PDs and RDs in creating teams, hiring, delegating tasks, and selecting mentors as well as focusing on providing educational programs to meet citizen needs. As such, participants noted the importance of selecting the “right people.” One PD provided an example of having fostered transformative learning, in part from choosing the right people:

I’ll never forget the first meeting that we had when we talked about it. A lot of people had been elbowed, especially by me, to drop out of the program. But we brought a whole bunch of other new people in—a lot of

people who had experience in community development. So, that's one example that I can think of that was a total wholesale switch.

Communicating. Communication has been discussed multiple times as part of the findings from participant interviews as it was such a recurrent theme. One PD commented how a specific RD listened and used what was described as the “plan-check-act approach,” referring to a process of planning collaboratively, checking with stakeholders, and then acting to implement the plan. Regional specialists commented on an RD who consistently answered e-mails and returned phone calls in a timely manner. Top leaders mentioned RDs and PDs sending positive verbal and non-verbal messages about the value of participation in new faculty orientation for new regional specialists. RDs also spoke about purposeful communication. Personal communications reviewed during the study corroborated this finding.

State specialists from one program area related how their PD consistently engages state specialists in the decision making process of the program during monthly meetings where the program director

discusses topics, and we all discuss the topics. . . . But [the program director] discusses everything very openly and very early on. As soon as [the program director] knows information from above, [the program director] comes right back to us, shares with us the information that we need to know. And we provide feedback.

This program director, like several others, also has put in place and draws upon an advisory group consisting of regional faculty. The advisory group met at least quarterly via face-to-face meetings or Centra® to “provide feedback on how they feel about policies and procedures as it affects programming.” Specialists from within this program area noted the PD consistently used electronic mail to communicate with the field and the state staff and seek feedback. The state specialist added,

I really admire and respect that because I've been around long enough to see that when the formal learning takes place, whether it's in the form of the new guide sheet or the ITV meetings or a professional development opportunity, it's the result of that combined communication and discussion on what they [regional specialists] need in order to do their jobs better.

While RDs and PDs placed a premium on face-to-face interaction, they certainly used the breadth of available technology as a tool to extend their communication options. What the data suggested though is that they made purposeful decisions about whether to show up in person, place a phone call, send an e-mail, or mail a handwritten note. One top leader focused on the quality of the communication as was noted earlier by another participant, in referring to middle leaders communicating with enthusiasm and passion when effectively fostering learning and implementation of learning. An RD provided this example:

If something really is important, I will send it out regular mail rather than [e-mail]—if I want it to be seen differently, I will send it out regular mail. Instead of sending off a “good job” on e-mail, I will hand write it and mail it. It doesn't take very long to do a couple a week to just make sure that it wasn't just, “Oh I should send them a thank you.” I just try to put more care into it, and staff are picking up on that. You know I really care about them if I sit down and take the time to write it.

Communication mode, frequency, intent, content, atmosphere for delivery—every aspect of communication—were part of the very medium of learning. However, communication also conveyed the importance of learning and a caring or respect for those involved.

Caring. This sense of caring underpinned the roles and actions ascribed to middle leaders in their fostering of organizational learning. For example, one top leader observed, “At this point, one of the things that people by and large hold true about our organization is the bottom line is we care about the people, and the people being our own employees.” While participants acknowledged that caring runs deep in the culture of the

organization, descriptions suggested that middle leaders who effectively fostered organizational learning embodied this value. A state specialist captured this sense in the observation that effective RDs had communicated a sense of caring, were people-oriented, and fostered interaction with the state specialist and appropriate PD if differences arose.

A particular aspect of this caring was highlighted by several top leaders and specialists as that of valuing people. One RD was noted as giving specialists the opportunity to put anything on the agenda for regional meetings and making people feel valued. Other comments from participants portrayed RDs and PDs seeking “genuine input” from faculty and staff and working to build shared understanding. One top leader indicated the RD and PD roles were “very little about positional authority,” and went on to add,

I think it’s more about valuing and understanding where a person is that you’re approaching, what their main contributions are, and recognizing where they fit in that whole picture. And exhorting or extolling individuals to bring out in them what they can contribute. . . . You only have a few silver bullets affiliated with positional authority.

Another top leader related in a more general sense that “valuing individuals as contributing members of the team means trusting them to respond to their fullest potential individually or collectively.”

Trust. Trust surfaced repeatedly in many of the interviews as a key ingredient to organization learning. Building trust related to providing flexibility with sufficient structure to foster creativity and innovation, a hard act to balance as several participants noted. Like other participants, one middle leader highlighted trust as effective in these words:

Trust is one of those interesting things and, this is a cliché, it takes a long time to build trust. It can be gone in two seconds. Somebody loses it when she or he makes two or three bad turns. Trust is really hard to build. So I think ... the first thing you have to do is respect what they know and what talent or skill they bring. Whether or not you like the way they behave sometimes or you totally understand, you have to respect because everybody has something to contribute. I think if you walked into the role of any of these administrative roles, if you respect everybody that comes to the table, that sense of respect is the first stage of trust. And then you have to follow up with actions. And you need to treat people with value; you have to treat their ideas with respect. And then sometimes you get ideas that you're like, "Man I can't believe this stuff ever flies." But rather than thinking like that, you say, "Tell me more about your issue." You help people—you guide them through their discussions and help them think them through rather than shoot them down. And I think that's how you begin to build trust. And the same thing is true of program directors.

Giving attention to communicating clearly and honestly, building relationships, valuing each individual, choosing the right people, and exhibiting caring all appeared to engender trust. These attributes were the foundation to "empower faculty with decision making and ownership," in the words of one top leader. Likewise, the perceived absence or insufficiency in these same attributes underpinned many of the barriers to organizational learning identified by the participants.

Addressing Barriers to Organizational Learning

The participants' rich discussions of the barriers to organizational learning were balanced by their equally rich descriptions of the ways and means employed by RDs and PDs to foster organizational learning. The description of barriers to organizational learning and the means by which middle leaders fostered learning reflects that we are looking, in many ways, at two sides of the same coin. As shared earlier, perceived barriers to organizational learning encompassed the organizational culture and structure, including its diversity and complexity. Leadership actions seen as barriers certainly included the RDs and PDs, and participants especially pointed out role confusion, lack of

consistency and lack of collaboration between these middle leaders. Limited resources and the lack of time, trust, and honest, clear communication along with busyness and technology limitations were posited as significant barriers to learning as well.

When specifically asked what RDs and PDs had done to overcome these barriers participants provided examples of PDs having garnered or realigned resources to support key functions for learning and program evaluation, shared lessons learned and created opportunities for dialogue and application, initiated formal means for feedback from faculty (e.g., the annual survey, the advisory councils, faculty meetings, open door policies), began piloting programs and conducting debriefing sessions, provided opportunities for conversation and inclusion of various perspectives, and dropped approaches that were not working. A regional specialist highlighted the importance, for example, of a PD instituting a feedback mechanism and using it for the program's learning:

This is the third year that we've done it [the annual staff opinion survey]. What we're trying to do there is get people to tell us what they think about things because a lot of times we don't always get the right answers. So if we could put some anonymity to it where people don't have to be identified, sometimes it helps people be more honest and open. So, we're trying to use that as a learning tool to help us understand what issues are out there.

PDs identified how the informal breakfast meetings had reduced turfism because it had allowed them to work together on specific tasks such as the annual conference, get to know each other, understand each other's programs, and build trusting relationships. One PD related to it as get comfortable with the "uncomfortable."

RDs commented on having actively and purposefully pursued communication strategies, putting things in writing, and purposefully bringing people together to carry on discourse, and develop knowledge together. One RD commented:

One of the areas I have definitely chosen to work on is to spend time visiting face-to-face and time on a telephone conversation rather than just the email communication. Because I think that way we are able not only to share in terms of creating and sharing organizational knowledge, but we are also able to get to appreciate each other more because the tasks that we all have.

Another RD related having dealt with individuals' negative attitudes, noting:

Quite frankly, there have been a few times when I've had to look at a faculty member and say, "Get over it; we're going to do it. Here is my expectation of the part that you will play." And I don't like to get to that point because that's not my style. At some point though, you sometimes have a person with a negative attitude or unwillingness to learn along with the rest of the group, sitting back and getting ready to say, "I told you so." And at that point you have to be very direct with that person or those people.

Top leaders commented on RDs embracing the Council Leadership Development Program as a way to foster more effective extension councils and with county program directors learning more about dealing with councils. One commented that they had "set up conditions, set up incentives," and noted they had to model by example too in getting together to learn and allowing themselves the time to do so. She noted, "Then foster that same kind of condition for learning in the trenches with the people that they work with." Another indicated they had challenged their own mental models, listened to understand concerns and then sought to help faculty understand the "bigger picture."

Other top leaders specifically commented on RDs and PDs seizing opportunities as they arose. For example, one noted that they had experienced learning, growth and connectedness by working closely together on personnel issues, stating:

When you work through some of these very complex issues, you really begin building that relationship and then capital because you know how they think, you know where their integrity might stand about certain issues, how these things come together. So, I think they are working together more.

Another observed, “I see people moving around these barriers in ways that they can find they can be the most careful, yet effective, rather than what would be easier—‘We’ll just continue with what we have been doing.’” This leader reported seeing RDs and PDs willing to ask really hard questions and dialogue with each other, staff, and extension councils about appropriate staffing when the next opportunity would come to make changes, and concluded:

[R]egional directors and program leaders both have a serious discussion of what is it that we really need next [when regional specialist positions become vacant]. I see regional directors contending with what’s going to be popular with their councils to suggest that we don’t need the same that we have always had; maybe we should look at this. And then they get a program leader or two involved in the discussion to suggest this is where we head because the area we are in now may be very different than it was.

While participants perceived barriers to learning, they also perceived action to address these barriers. RDs and PDs themselves acknowledged the barriers and what they were trying to do to overcome some of them. The comparison of discussions about barriers to organizational learning and how RDs and PDs have fostered organizational learning reinforce the contention that organizational learning is a process affected by the surrounding external environment and dependent on array of internal players, dynamics, culture, structure, and history

Summary: The Role of Regional Directors and Program Directors

The most significant difference in the RDs' and PDs' roles in fostering organizational learning in Extension was related to the scope of their work in Extension.

While both focused on development and delivery of educational programming, the RDs concentrated on the geographic region served. PDs spanned the regions and campuses giving attention to a specific program area. When participants discussed effective examples of organizational learning fostered by RDs and PDs, they noted similar roles and functions carried out by both. Participants noted that RDs and PDs acted as designers, enablers, administrators and evaluators and bridges. They used the same sort of methods of communicating, seeking feedback, establishing structures, bringing people together for dialogue and sharing and creating knowledge (or process or product such as curriculum) to address barriers to organizational learning.

Not surprising, these are many of the same features that surfaced as barriers. These included the RDs and PDs working collaboratively, building trust and valuing each and every person, communicating openly and regularly via a variety of means appropriate to the situation, seeking and valuing input and participation (and using it), and thinking in a systems (or big-picture or cross-disciplinary) way. They sought balance between providing structure and flexibility for creativity. They provided direction and vision but used participatory processes to create and hone the vision. They purposefully included informal time for experiential learning and socialization as part of the shared learning experiences. They acted in ways consistent with their espoused views, actively engaged in learning themselves, and chose the right people to work in the organization and for specific tasks. Most striking was the focus of these middle leaders on building and nurturing caring relationships.

Summary

Chapter Four described how this study occurred in the midst of an organizational transition, within one year of a consolidation. Extension as part of the larger university had also weathered several years of reduced state funding as part of cuts to higher education as a result decreased discretionary state revenues and an economic downturn.

Participants' definitions of organizational learning were as varied as those found in the literature. Definitions ranged from a focus on the process of creating, sharing, and transferring knowledge to individual learning in the organization versus the collective learning of the organization. Common to nearly all of the definitions of organizational learning was that it is a process, regardless of its purpose or nature. Various participants noted the organizational learning process to be not what we learn but how we learn, iterative, ongoing, dynamic, progressive, and the organization to be in a constant state of evaluation.

Participants talked about the process of organizational learning as a shared process of learning that intricately links individual learning with collaborative learning as a whole. They noted organizational learning serves the purpose of carrying out the mission of the organization, maintaining its culture and history, and dealing with internally-induced and externally-imposed changes in order to survive. They highlighted experiential and tacit learning, reflection, deliberation, creating mental models, teamwork, experimentation, and communication as critical aspects of organizational learning. The data also reflected adaptive and transformative learning; vertical, horizontal and multi-directional learning; formal and informal (or experiential and tacit) learning; and content-focused and process-focused learning. Participants detailed the use of

multiple modes for shared learning and highlighted the importance of teams in creating organizational knowledge and learning. The variation in perception of organizational learning was not distinguished generally by one's position in the organization.

Participants' descriptions also reflected the complexity, layers, and diversity of organizational learning, mirroring the complexity and diversity found in the organization. Some learning is content or program specific, some is geographically specific (based in the regions), and some is related to the whole organization. The learning encompasses processes, the organization's mission and culture, and the education content itself delivered as part of the organization's mission. The descriptions provided by the participants regarding participation in various learning communities or groups or teams were supported by organizational documents and personal knowledge.

This complexity and diversity appeared as a barrier to organizational learning along with aspects of the organization's culture, structure, leadership and use of technology. Also noted as barriers were lack of trust, insufficient clear communication, lack of time and busyness, and limited resources, as well as the environment of change in which this study was being conducted. Despite the number of meetings and groups being convened, a sizable number of the participants in all groups interviewed felt that RDs and PDs were not sufficiently fostering professional learning communities. These participants felt there was insufficient time allocated to sharing and mutual construction of meaning and knowledge.

When participants discussed effective examples of organizational learning fostered by RDs and PDs, they noted similar roles and functions carried out by both. While both focused on development and delivery of educational programming, the RDs

concentrated on the geographic region served. Program directors spanned the regions and campuses giving attention to a specific program area. Participants noted that RDs and PDs acted as designers, enablers, administrators and evaluators and bridges. They used the same sort of methods of communicating, seeking feedback, establishing structures, bringing people together for dialogue and sharing and creating knowledge to address barriers to organizational learning.

Underlying these basic functions and roles were foundational ways of thinking and operating that included RDs and PDs working collaboratively, building trust and valuing each and every person, communicating openly and regularly via a variety of means appropriate to the situation, seeking and valuing input and participation (and using it), and thinking in a systems (or big-picture or cross-disciplinary) way. They sought balance between providing structure and flexibility for creativity. They provided direction and vision but used participatory processes to develop and refine the vision. They purposefully included informal time for experiential learning and socialization as part of the shared learning experiences. They were consistent in their actions (and their actions generally aligned with their espoused views), they actively engaged in learning themselves, and they chose the right people to work in the organization and for specific tasks. Especially noteworthy was the focus of these middle leaders on building and nurturing caring relationships.

Many of the same issues described as barriers surfaced in the opposite state as factors and actions that fostered organizational learning. The organization will always be in a process and never reach the ideal; however, indicators of increased involvement in shared learning among the RDs and PDs as separate groups and a combined group

seemed to be an important signal of organizational learning that might yield more transformative learning for the future.

CHAPTER FIVE

CONCLUSION: SUMMARY, DISCUSSION, AND IMPLICATIONS

Introduction

This chapter begins with the summary of the problem, method, findings, and limitations from this exploratory qualitative study. A discussion of the findings from the study in light of the literature follows. Then the conclusions from the study are presented. A discussion of the implications and recommendations for practice, education, and future research is followed by a final summary of the study.

Summary of Study

Statement of the Problem

With the increasing pace of change, higher education organizations are seeking to understand, adapt, and re-create themselves in order to deal with globalization, new technologies, the explosion of knowledge, the widening gap between the affluent and the poor, declining public revenues, and the call for engagement and civic participation. Boyce (2003) and Forest (2002), among others, have asserted that the research clearly deems organizational learning as essential to achieving and sustaining change in higher education. Fullan (2001) also defined the role of leadership in a culture of change. Despite the growing literature pertaining to organizational learning and learning organizations in business, education, and the nonprofit world, little literature has focused on how leaders actually facilitate learning in a learning organization (Leithwood, Jantzi, & Steinbach, 1998; Ellinger, Watkins, & Bostram, 1999). The need to further the empirical research base for organizational learning is essential as we continue to experience a watershed of change in higher education and the world around us.

Within higher education, Boyce (2003) pointed out that innovation most often comes from the fringes. The cooperative extension service, while an integral part of land grant universities, is also not necessarily in the center of those universities. Therefore, in Boyce's terms, cooperative extension may be of special interest as its mission is one of serving the larger society with relevant education that extends beyond the normal domain of university education. Extension's essential nature revolves around bridging the research and scholarship of the university with the needs of individuals, families, businesses, and communities in a democratic society. The Kellogg Commission on the Future of State and Land-Grant Universities (1999), McDowell (2001), and Powers and Pettersen (2001) argued that responsiveness to the public and the university's engagement with the public must go beyond extension, conventional outreach, and most conceptions of public service to become truly community-based and collaborative in learning with the community and other partners. The changing nature of the federal and state budgets have also sharpened the need for cooperative extension and the land grant university to be responsive and proactive in a rapidly changing and increasingly complex environment with a widening diversity of constituents.

Little research has looked specifically at the factors contributing to the development of a learning organization within higher education, let alone cooperative extension. By nature of cooperative extension's focus on non-traditional (usually non-credit) learners and sometimes integrated functions within land grant universities, the complexity and dispersion across disciplines and geographic locations within a state, Extension must necessarily rely on middle leaders to ensure the educational mission is attained. Likewise, little research has been done to explore the applicability of research

conducted within the business world to the role of mid-level leaders in promoting organizational learning within higher education, and specifically, within cooperative extension.

Method

An embedded naturalistic case study (Patton, 2002; Yin, 2003) was used to define the nature of organizational learning and determine the role of middle leaders, namely regional directors (RDs) and program directors (PDs), in fostering organizational learning within the cooperative extension service (Extension) of a Midwestern land grant university designated as doctoral/research university-extensive. Two questions guided this study:

1. What is the nature of the organizational learning occurring in Extension as perceived by middle leaders (regional directors and program directors), regional and state faculty, regional extension council members, and top leadership?
2. What are middle leaders (regional directors and program directors) doing that fosters or inhibits organizational learning in Extension, as perceived by themselves, regional and state faculty, regional extension council members, and top leadership?

The data were collected in two phases primarily through individual and focus group interviews using a multiple category double layer design, adapted from Krueger and Casey (2000). During the first phase, eight current and former top leaders, all eight RDs, and five of the six current or very recent PDs were interviewed. The second phase included interviews of representative faculty comprising 22 campus-based state

specialists and 25 regional specialists, as well as 11 state extension council members. In total, 79 persons were interviewed. To insure accuracy (Merriam, 1998), transcripts were shared with participants to provide them the opportunity for changes and clarification. The interview transcripts from different groups as well as within group categories were used to triangulate the data. Corroboration of the data occurred through researcher reflections and a review of organizational artifacts that included meeting minutes and agendas, reports, web sites, plans, and program materials.

Data were analyzed by open and axial coding, using the NVivo 2 software package. Initial categories were generated, refined through selective coding, and validated through constant comparative analysis (Merriam, 1998; Miles & Huberman; Patton, 2002; Yin, 2003). An outside peer coder verified these categories. To insure trustworthiness (Merriam), participants were presented a written summary of findings for comment regarding the veracity of the findings from their experiences. Meetings to share the findings were held with RDs and the PDs as groups to ascertain whether or not the findings “rang true” to their understandings and experiences in the organization. In addition, the peer facilitator of several focus group interviews and peer coder confirmed that the findings as reported were consistent with what she heard and observed during the focus group interviews.

Summary of Findings

Conducted while Extension was in transition following an organizational consolidation of its administrative structure, participants highlighted organizational learning as a shared process of learning that intricately links individual learning with collaborative learning as a whole. The purpose of organizational learning was linked to

carrying out the mission of the organization, maintaining its culture and history, and dealing with internally induced and externally-imposed changes in order to survive. Participants described organizational learning as comprising experiential and tacit learning, reflection, deliberation, creation of shared mental models, teamwork, experimentation, and communication. The analysis of the data revealed adaptive and transformative learning; learning occurring in horizontal, vertical, and multi-directional dimensions; and informal learning as well as formal organizational learning. Participants' descriptions reflected the complexity, layers, and diversity of the organization as well as the organizational learning. The focus of the organizational learning encompassed processes, the organization's mission and culture, and the educational content itself delivered as part of the organization's mission. Some learning was program-specific, some was specific to Extension's regions, and some was related to the whole organization. Despite the regional, programmatic, or organization-wide locus of the learning, some learning placed equal or more emphasis on the knowledge creation processes than the specific content of the learning.

Barriers to organizational learning included aspects of the organization's culture, structure, leadership, and use of technology. Also specifically noted as barriers were a lack of trust, poor communication, time constraints and busyness, and lack of resources, as well as the environment of change in which this study was being conducted.

When participants discussed effective examples of organizational learning fostered by RDs and PDs, they noted similar roles and functions carried out by both. In fostering organizational learning, RDs and PDs carried out four primary functions as designers, enablers, administrators and evaluators, and bridges. RDs and PDs used the

similar methods of communicating; seeking feedback; establishing structures, and bringing people together for dialogue, sharing, and creating knowledge (or process or product such as curriculum) to address barriers to organizational learning.

Many of the same mechanisms attributed to fostering organizational learning surfaced as lacking in participants' discussions of barriers to organizational learning. These included the RDs and PDs working collaboratively, building trust and valuing each and every person; communicating openly and regularly via a variety of means appropriate to the situation; seeking participation and valuing and using input; and thinking in a systems (or big-picture or cross-disciplinary) way. When fostering organizational learning, these mid-level leaders sought balance between providing structure and flexibility for creativity. They provided direction and vision but used participatory processes to create and refine the vision. They purposefully included informal time for experiential learning and socialization as part of the shared learning experiences. RDs and PDs acted consistently (and their actions generally aligned with their espoused views), actively engaged in learning themselves, and chose the right people in hiring and to work on specific tasks and projects. The focus of these middle leaders on building and nurturing caring relationships was a pronounced feature of their work to foster organizational learning.

The scope of their work in Extension constituted the most notable difference in the RDs' and PDs' roles in fostering organizational learning. Both groups of middle leaders focused on development and delivery of educational programming. However, the RDs concentrated on the geographic region served, and PDs spanned the regions and campuses giving attention to a specific program area.

Limitations

As with any study, the limitations of this study should be understood when discussing the findings, drawing conclusions, and stating implications for future research and practice. Following is a discussion of limitations related to the method, context in which the study occurred, and the researcher. The potential impact of the study itself as an intervention and the qualitative nature of the study are also addressed.

Limitations Related to Methods

Some limitations are specifically related to the methods employed in the study. The participant mix, equipment, and methods of interview constituted limitations that are presented in the following.

Participant mix. While a mix of participants from across the organization was interviewed, not all regional and state specialists were interviewed. Regional specialists were included from every region; however, the state and regional specialists interviewed represented only four of the five key program areas. The fifth program area was not included due to potential conflict of interest created by the researcher serving in the position of PD for that program area. To that extent, the actions and roles played by the researcher as a PD were not explored explicitly, and only included if mentioned by those who were interviewed. Because each program area is somewhat different, one might expect this study could be missing an additional dimension. (However, in reflection as conducting the study and analyzing the data, I think many of these aspects have been covered by the array of participants nonetheless.) In addition, regional paraprofessional educators and other organizational members that provide administrative, professional, or

technical support were not interviewed. Therefore the potential exists for some viewpoints and perspectives to have been overstated, understated, or missing.

The actual mix of regional and state specialists interviewed may pose a second limitation. While purposeful representation was used to create a list for invitation to participate, the potential for some views to be over-represented or under-represented exists. In addition, of those selected for interviewing, a few declined to participate, providing no reason (which also raises the possibility that their views would have been different). Others indicated they were not available due to conflicts of schedule (vacation, program commitments, special leave) during the two week time period in which interviews were conducted. And two or three others were unable to participate in the interview due to last minute conflicts such as ill children or a grant sponsor visiting. Consequently, the mix between regions, program areas, length of employment, and gender was not equally distributed.

Equipment. Equipment limitations included those resulting from the limits of the tape recording and transcribing machines as well as the technology used for conduct of the second RD focus group interview and all of the interviews of regional specialists. First, as participants' voices tended to trail off after approximately 20 to 30 minutes, especially in individual interviews, neither the transcriptionist nor I were able to capture every word in some interviews. Even with the addition of a powerful external microphone for interviews with focus groups and interviews with the last several PDs, this was occasionally still a problem. (I would recommend use of a digital recorder for future studies as the quality of recording is generally higher.)

Second, the focus group interviews for one group of RDs and for five groups of regional specialists were conducted via Centra®, a web-based teleconferencing system. A potential limitation imposed by Centra® was the lag time for responses during some interviews due to the volume of Internet traffic or the bandwidth of participants. Also a few regional specialists were using Centra® for the first time during the interview. Each of these aspects could have lowered participant comfort or distracted them from the content of discussion.

Method of interview. Another potential limitation arises from the types of interviews conducted. Top leaders and PDs were interviewed individually while others, with the exception of one state specialist and one regional specialist were interviewed as part of focus groups. The individual interviews provided more in-depth exploration of topics with each individual which might suggest the perspectives of those interviewed via focus groups were not explored in as much detail. On the other hand, those who participated in focus groups had the advantage of building off of each other's ideas.

Also as mentioned previously, the focus group interviews for one group of RDs and for five groups of regional specialists were conducted via Centra®, as opposed to face-to-face. Similarly, one individual interview with a regional specialist was conducted via telephone. While people seemed to speak more directly and remain more on task with the question posed, this method prevented the observation of the non-verbal responses. With Centra®, participants were able to and did communicate some non-verbal responses through the use of the buttons for smile, applause, yes, and no. However, the lack of face-to-face contact might have lowered participants' sense of comfort in sharing with me or

others whom they might not have met before. On the other hand, this method may have also provided a certain sense of anonymity.

The limitations posed by the use of Centra® were offset by the ability to include (versus exclude) regional specialists on the basis of time and travel limitations for a face-to-face focus group. Other than the more concise and direct answers and less engagement with each other as a group, I did not sense any less willingness to be open and honest in responses between focus group participants interviewed via Centra® and those interviewed face-to-face.

Limitations Imposed by the Context of Time

This study represents the specific views and understandings of participants at a specific point in time for the organization. This study may be limited also by the unique organizational context in which the study was conducted. Specifically, as the interviews began, Extension had just completed the first six months of transition in organizational structure and leadership after consolidation of the state administrative structure for organization. While this particular time within the organization provided an opportunity to uncover learning, the possibility that participants' perceptions were colored by the transition and associated politics must be recognized.

Researcher-Related Limitations

Finally, my own limitations as the researcher created potential limitations for the study. First, my own status as an insider, an actual middle leader and PD within the organization studied, served as both an asset and potential limitation. As a member, I understood the nuances of the organization and its culture, but I also may have been blind to the common and tacit aspects of the organization. In addition, my own experiences and

relationships also potentially affected the level of participation as well as interpretation of data. While the study was designed to limit the effect of researcher bias, the experiences of the researcher cannot be discounted as impacting a study of this nature.

Second, my assumptions upon engaging the study are important for determining transferability of this study to other contexts and organizational settings. As noted in Chapter One, I approached the study with a strong belief about the importance of Extension operating as a learning organization. I engaged in the study as a PD (middle leader) with experience as a state specialist and nearly 20 years of work experience in the organization. My bias as a middle leader potentially complicated the process of viewing the wider organizational picture from the perception of regional and state specialists, extension council members, and top leadership.

As I embarked on this study, I assumed that this cooperative extension service reflected some aspects of a learning organization in some contexts but not in others. I also assumed that middle leaders were fostering organizational learning, wherever the organization fit on the hypothetical continuum of operating as a learning organization. Finally, I assumed that becoming a learning organization was desired by top leadership.

Research as an Intervention

Another factor to be considered is that the very conduct of this study, especially the active engagement of participants through the interview process, constituted an intervention that could impact the organizational learning. My observations of participants suggested the interviews raised participants' awareness, reflection, learning, and potentially actions that contributed to organizational learning. For example, participants in state specialist focus groups were from a mix of program areas and often

began to ask each other follow-up questions about how functions were carried out in their respective program areas. Even during the focus groups conducted via Centra® where specialists were engaged from a mix of regions and program areas, regional specialists commented on what others had said by comparison and asked each other questions. In the case of regional and state specialists, participants came together in groups different than they would normally find themselves. Others made comments indicating they had not thought of certain issues, that they were seeing a connection not previously realized, or that the topic was of interest and importance to them professionally. For example the RDs engaged in a two-hour dialogue with me when presented the findings (Thirty minutes had been scheduled). One of several comments made by specialists included this remark from a regional specialist:

It's a very interesting kind of research.... I believe without doing what you're doing, I don't think the organization can know where it's failing and where it's not. Most everything is hearsay, so that might be able to complement or to kind of put into blue ink what we found out. And it's on record. Thank you.

Most of the interviews were conducted in a fairly compact time frame. That the research itself constituted an intervention is likely, although not undesirable.

As in any qualitative study, the conclusions from this study cannot be generalized to the larger population of cooperative extension services or to higher education. This study has focused only on one specific cooperative extension service in the Midwest. As the organization and culture of universities can vary, so also can vary the organization and culture of cooperative extension services within respective land grant universities.

The description of the organization and the activities of the leaders have been presented so that others can determine the extent and appropriateness of transferability to

another context. The descriptions have been developed to illuminate the situation, culture, demands for change, and roles the middle leaders (RDs and PDs) were fulfilling to foster organizational learning. This is intended to provide insight to other organizations—including cooperative extension services in other states and countries as well as higher education institutions. The comparison to findings of the researchers in the business context and other cultural contexts below will also provide clues to the transferability of the findings of this study in light of previous studies.

In summary, the limitations to this study included those related to the mix of participants that participated in the study, the equipment and technology used, the interview methods, the specific time and context of the study when conducted, and the researcher's skill, position in the organization and bias. The study itself constituted an intervention in organizational learning and may have created an effect. In addition, transferability may be limited by the study of only one specific organization. With these limitations in mind, the findings, conclusions, and implications for research and practice will be discussed.

Discussion of Findings

The findings of this study are discussed in light of the literature and previous research. The topics addressed include the nature of organizational learning and the roles played by the RDs and PDs as middle leaders in fostering or inhibiting organizational learning. The discussion will also highlight the findings regarding the barriers to organizational learning in tandem with the findings regarding ways that middle leaders were perceived to inhibit the learning. The discussion of the results identifies the findings

that are consistent with previous research and literature and teases out the differences in degree or effect observed in this study.

Question 1: Nature of Organizational Learning

Definitions of Organizational Learning

The definitions of organizational learning, as varied as the literature (Örtenblad; 2001; Sun & Scott, 2003; Stewart, 2001; Takeuchi & Nonaka, 2004; Wang & Ahmed, 2003), indicated people approached the topic from various theoretical reference points, academic disciplines, and exposure to training and the concept of organizational learning. The common reference to organizational learning as a process, with the implicit and explicit notation that the process is ongoing, was consistent with Kurt Lewin's Field Theory which "emphasized human behavior as the product of a dynamic field of forces" (Bunker & Alban, 1997) and affected social psychology and the field of organizational development. Organizational learning as a process was also reflected by Bruffee (1997), Collins (2001), Hanson (2001), Lindley and Wheeler (2001), Nonaka et al. (2001), Nonaka and Takeuchi (1995, 2004), Pace (2002), Senge (1990), Stewart (2001), and Von Krogh et al. (2000) among others. In Martin's (2002) parlance of culture, there was integration around the view that organizational learning is an ongoing process.

Participants' use of the term *learning organization* interchangeably with *organizational learning* occurred primarily with those who acknowledged their familiarity with Senge (1990) and Garvin (2000) or their exposure to the concepts of organizational learning either as part of the Program Leadership Council or in their own studies or field of expertise (e.g., business development specialists). Participants from across the organization in general did not espouse the view that being a learning

organization was a desired end unto itself; rather, most responses were more in line with Stewart's note that learning is an organizational means that is indeed contextual. Some middle leaders and specialists actually intimated that the focus on becoming a learning organization had at times been more leader-driven than melded into the flow and culture of the organization.

The individual versus collective learning dynamic. Divergent perspectives on organizational learning as learning *in* the organization, learning *by* the organization, or some combination whereby the two are inextricably linked supported Lipshitz and Popper's (2000) findings from a teaching hospital setting that many people tended to see learning in the organization. Certainly the common citing of the annual conference and professional development opportunities as part of organizational learning reflected this aspect of individual learning in the organization. That individual learning is linked to the organizational learning was also highlighted by numerous comments about group learning and transfer of learning during these events. The link between individual learning and organizational learning was also demonstrated by the notations of RDs and PDs as modelers of learning—individually and collectively. My observation that portrayals of organizational learning exist on a continuum between individual learning and organizational learning is consistent with Moilenan's (2001) representation of organizational learning as a diamond, which integrates a set of individual and organizational learning aspects and activities.

The array of perspectives about learning by the organization reflected Örténblad's (2001) evolution of approaches to organizational learning typified by Argyris and Schön (1978, 1996), Senge (1990), and Nonaka and Takeuchi (1995) and Stewart (2001). The

references to differences between what was said and what was practiced in the organization harkened to Argyris and Schön's espoused theories versus theories-in-use as well as Senge's concept of challenging one's mental models through deep learning. The focus on shared vision, mental models, and team building reflected Senge's approach. Senge was the person most often noted by participants. He was cited specifically by at least two top leaders and two middle leaders and implied by others. Organizational learning that involved creating mental models was highlighted in examples such as the participatory and collaborative learning with farmers and others in the Grass-based Dairy Program, the shifting of the council training paradigm in the Council Leadership Development Program, the capacity building developed among participants in the Community Development Academy and the State Extension Leadership Development Program, and the evolution of the volunteer screening process for youth programs. Examples of organizational learning shared by participants provided evidence that top leaders, RDs, and PDs brought together diverse perspectives in recognition of the broader system.

Incorporation of team learning, noted by participants as critical to organizational learning and as an ideal yet to be fully realized, was consistent with Chan's (2003) finding in a hospital setting that "individual learning was not significantly related to organizational learning. However, individual learning was a significant predictor of team learning. Team learning was significantly related to organizational learning" (p. 223). Nonaka (2004) also cited the role of team learning in organizational learning processes, stating:

Teams play a central role in the knowledge-creating company because they provide a shared context where individuals can interact with each

other and engage in the constant dialogue on which effective reflection depends. Team members create new points of view through dialogue and discussion. They pool their information and examine it from various angles. Eventually, they integrate their diverse individual perspective into a new collective perspective. (p. 45)

Participants who referenced collaborative learning (or “co-learning”) and the engagement of those affected by a situation in the learning process often related specific stories couched in the context of the organization and the situation, much as Axelrod (2000) and Stewart (2001) discussed. In these same discourses, the participatory nature of the learning and the breadth of knowledge went beyond individuals to embrace enculturated, embedded, and encoded knowledge (Örtenblad, 2001). These instances, such as the ones shared in the previous paragraph, were consistent with Nonaka and Takeuchi’s (1995) knowledge creation process and Örtenblad’s (2001) description of the new organizational learning.

This divergence of definition and understanding of the essence of organizational learning argues for one to articulate clearly the foundation from which one is drawing when referencing organizational learning (or the learning organization) in both research and practice within the organization.

The purpose of organizational learning. The highlighting of organizational learning for the purposes of carrying out the organization’s mission represented the unique aspect of this organization as an educational institution. The mission in this case was one of explicit knowledge creation and sharing in order to benefit the wellbeing of the residents of the state. The Kellogg Commission of the Future of State and Land-Grant Universities (1999), McDowell (2001), and Powers and Petersen (2001) argued that the mission necessitated engagement with the residents in collaborative learning. Many of the

participants who linked organizational learning to the carrying out of the mission reflected the viewpoint of responsiveness to citizens, and some specifically espoused the collaborative engagement on all levels, including those served. While businesses do in fact share a mission with some similarity, the public good is explicit for this institution and is further affected by the collegial culture as discussed below.

In this study, the participants' identification of organizational learning for the purpose of dealing with internal and external changes, either proactively or reactively, resonated with a common theme in the literature. Duckett (2002), Garvin (2000), Fullan (2001, 2005), Hanson (2001), Houghlum (2003), Marsick and Watkins (in Pace, 2002), Nonaka and Takeuchi (1995), and Senge (1990) are among the many who have called for organizational learning in order to navigate the seas of change successfully.

The participants' conceptualization of organizational learning for the critical purpose of maintaining organizational history, culture, and institutional memory reinforces earlier findings in recognition of socialization and sharing of tacit knowledge (Bruffee, 1997; Hanson, 2001; Nonaka & Takeuchi, 1995; Örténblad, 2001; Stewart, 2001; Takeuchi & Nonaka, 2004; Von Krogh et al., 2000). This study, however, also pointed to the dire need for a systematic means of capturing this knowledge to make it explicit in this organization. While specific to the organization and context, Lipshitz and Popper (2000) argued for the same. The focus on a knowledge system in this study reflected some participants' seeing knowledge management as synonymous with organizational learning. However, the highlight of this need also portrayed an imbalance within a system-structural, cultural and interpretive approach to organizational learning (Lehr & Rice, 2002; Morgan, 1997). Striking a balance between unlearning aspects of

the culture inherent in an established organization (Schein, 1992) and maintaining organizational memory or transference is also a delicate and challenging task. The viewpoints expressed by participants reflected the importance of maintaining institutional history as well as the critical need to challenge the status quo, both aspects of which comprise organizational learning.

The participants' perception of organizational learning as a means to transfer learning and knowledge concurs with the findings of Lehr and Rice (2002), Nonaka and Takeuchi (1995), Pace (2002), Szulanski (2003), Takeuchi and Nonaka (2004), and Venters (2004). The expressed need to pay more attention to this transfer through formal and informal systems within the organization across regions, programs, and processes was one that these authors argued is essential to the competitive advantage of an organization. What appeared to be missing in many cases in this study were intentional acts of reflection, recording of learning, and sharing of learning. This indicates that there is more to the process than the creation of the technological knowledge management system, as argued by Collins, (2001), Takeuchi and Nonaka (2004), and Von Krogh et al. (2000), or a listing of best practices (Patton, 2001).

Types of Learning

Adaptive and transformative learning. The emergence of several typologies as different lenses by which to view the learning also resonates with the previous literature. First, the adaptive versus transformative learning reflects a systems approach taken by many theorists, especially Senge (1990) and Morgan (1997). Although, as noted earlier, most authors have discussed organizational learning in conjunction with change. Participants in this study consistently portrayed their understanding of the organization

from a systems perspective. The concept of adaptive learning to alter processes and procedures in reaction to changes in the feedback or environment was consistent also with Argyris and Schön's (1978, 1996) single loop learning and Morgan's (1997) note of contingency theory as the basis of explanation for organizations adapting to their external environment. Morgan specifically pointed out how the matrix form of organization "makes use of project teams to deal with the continuous flow of problems and projects associated with changes in corporate policy and the external environment" (p. 45).

Extension in this study represented a matrix organization, in several ways. Consistent with Bolman and Deal's (2003) matrix organization concept, regional faculty were accountable to their RD and their PD. Similarly, campus faculty were accountable generally to both a department chair and to a PD. When engaged with a specific project, faculty and staff were expected to maintain accountability to the project leader as well as their normal lines of accountability (Morgan, 1997). These complexities are portrayed in a three-dimensional matrix in Figure 5. 1. In addition, most PDs were accountable to both the director of Extension as well as the dean of an affiliated college. Participants from various levels in the organization in this study concluded, like Morgan, that the key in a matrix organization, was striking a balance or compatibility between structure, strategy, technology, commitments and needs of people, and the external environment. This adaptive learning was consistent with Argyris and Schön (1996) and Morgan (1997) in their description of single-loop learning as the organization engaging in keeping itself "on course," which entailed acting on existing assumptions. The challenge faced by Extension, like many organizations, was that the very institutionalization of operating

norms thwarts the ability to engage in learning that requires successfully challenging the underpinning assumptions.

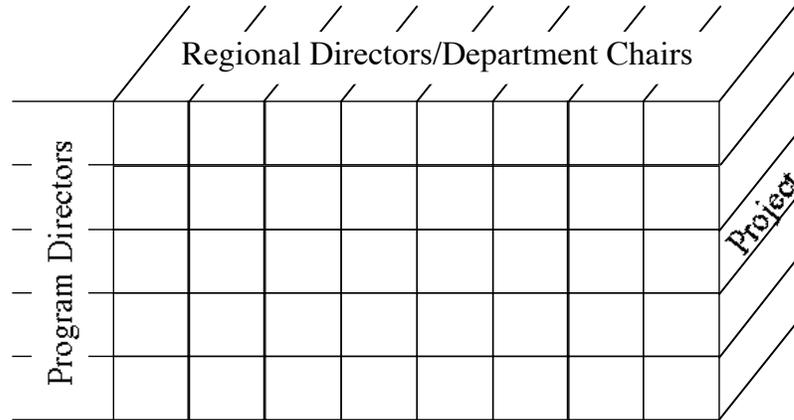


Figure 5.1. Extension as a matrix organization.

In this study, the less commonly noted transformative learning highlighted in participant narratives shared three salient characteristics. First, these learning processes tended to gather a broad and diverse array of people and perspectives to work as a team, which included those affected, i.e., the customer or learner served. This was consistent with the concept of requisite variety and diversity discussed by Hock (1999), Morgan (1997), and Nonaka and Takeuchi (1995) and the aspect of inclusion for empowerment by Axelrod (2000). Second, the team members worked as equals in learning or as co-learners. Again this was consistent with Axelrod (2001), Bruffee (1997), Nonaka (2004), Nonaka and Takeuchi (1995), and Powers and Petersen (2001). Third, the process involved inquiry and questioning of the status quo. “Why” and “what if” were operative words, without the blinders of past reasons for action (or inaction). Yet participants used the past as a source for learning and adaptation as appropriate, or change was not made solely for the sake of change. This challenging of assumptions appeared to be consistent with Morgan’s description of double-loop learning as well as the variety of other terms,

such as triple loop, generative, and transformative learning as noted by Stewart (2001), Gozdz's (2000) transpersonal learning, and the dialectics of knowledge creation (Nonaka & Takeuchi, 2004). Unlike Stewart's assertion that transformative learning terminology was merely cognitive, the transformative learning described by participants in this study included the aspect of non-rational learning (Nonaka & Takeuchi, 1995; Von Krogh, et al., 2001; Takeuchi & Nonaka, 2004) and context asserted by Stewart to be critical to organizational learning.

Horizontal, vertical, and multi-directional learning. Organizational learning as a multi-directional phenomenon was apparent in the variety of levels in the Extension organization within which organizational learning was occurring. Local learning, learning "all the way up," horizontal learning, and cross-disciplinary learning were all terms and concepts identified as part of multi-directional learning in this study. These concepts as indicators of multi-directional learning (depicted in Figures 4.9 and 4.10) also reflected Nonaka and Takeuchi's (1995, 2004) assertion that learning can and does occur in different spheres within the organization. This portrayal also reflected the contextual nature of learning in a very complex, bureaucratic, and matrix organization. Nonaka and Takeuchi spoke of the "middle-up-down" learning necessary for the creation of organizational knowledge as well as the cross-leveling function of transfer of learning, yet few have focused on the complexity of learning that is multi-dimensional in the way that participants in this study described it. Participants also pointed to the great need for more cross-disciplinary learning and learning up the organization versus passage of learning down the organization. This too is consistent with Morgan's (1997) assertion that turbulent times require multidisciplinary teams and the assertion of Nonaka and

Takeuchi (1995; 2004) and others that diversity is important in creating the learning community.

Formal and informal learning. The participants' acknowledgment that both the formal and informal or experiential learning were critical to organizational learning resonated with Hanson's (2001) hard and soft knowledge and Nonaka and Takeuchi's (1995; 2004) tacit and explicit knowledge. Lehr and Rice (2002), Lindley and Wheeler (2001), and Örtenblad (2001), and Stewart (2001) also noted the importance of using tacit knowledge for organizational learning. Venter's (2004) study of the transfer of learning within a subset of this Extension organization also found a high reliance on tacit knowledge, experience, and storytelling. Participants in this study shared various examples of learning that were consistent with Nonaka and Takeuchi's cyclical organizational knowledge creation process of socialization, externalization, justification, combination, and internalization. The descriptions of learning in this study that entailed getting to know the team members personally, learning from each other's experiences, and learning as a group experientially recognized the power of both the cognitive and the affective dimensions of creating, sharing, and transferring organizational learning.

Context of the learning in relationship to the evolution of organizational learning. Participants described organizational learning centered around program content, processes, and procedures and ways of doing business. Each of these three occurred within programs and regions, between programs and regions, and across various structural and temporal boundaries in the organization. That the learning and context of learning varied from one region to another, from one program area to another, or from one organizational process to another reflected the different subcultures, the diversity,

and the differing contexts within the organization. Nonaka and Toyama (2004), Örtenblad (2001), and Stewart (2001) each suggested that context plays an essential role in understanding the learning that occurs in the organization. Looking at the various contexts mentioned above through the process of evolutionary learning detailed by Von Krogh et al. (2000) provides further understanding for the nature of organizational learning occurring.

Von Krogh et al. (2000) concluded that companies had evolved their learning processes in response to complex matrix organizations geographically dispersed across the globe in ways that have facilitated boundary spanning. They noted many firms started as “risk minimizers,” stating:

Such firms begin their knowledge initiatives by trying to locate and capture valuable company knowledge. Typically, they focus on the contents of knowledge, or what is known by key individuals and groups within the organization. These companies tend to emphasize existing knowledge that is of use for solving various operational tasks. (p. 261)

As the learning process evolves, companies became “efficiency seekers,” who “did not put “knowledge creation on their management agendas,” but did tend to search for new knowledge being developed throughout their organizations, as well as the existing knowledge held by individuals and groups” (pp. 261-262). They observed the goal of these firms was “to transfer experiences and best practices across the organization to achieve some cost advantages by avoiding replication of knowledge creation” (p. 262). These companies increasingly focused on the importance of tacit knowledge and creation of processes. Finally, companies became “innovators” as they focused to enable the creation of new knowledge, characterized by a shift to processes for knowledge creation led by “knowledge activists.”

With this evolutionary model in mind, the learning related to specific content, such as how to develop more effective county extension councils or teach successful principles for creating a profitable dairy operation based on grazing the cows on grass, often related to seeking multi-disciplinary content expertise within the organization. In the one program area where intentional effort had been made to identify best practices (also a capturing and locating activity), the program was gradually moving toward one where transferring and sharing were the more central foci. Likewise, the Grass-based Dairy Program had moved to documentation of best practices and the sharing or transferring of them within and outside the state. The Council Leadership Development Program was also working toward this phase as systems were set in place to facilitate sharing and transferring of tacit and explicit knowledge. That RDs and PDs addressed transfer of learning in a number of their interviews and that many of the mechanisms for transfer or cross-leveling of the learning in the organization were related as informal, tacit, and dependent on individuals was consistent with Von Krogh et al (2000).

Finally in this study, the enabling of knowledge creation was represented by the observation of some participants that the most important transfer of learning across the organization was the process of engaging people in decision-making and collaborative learning. Also the transfer of the process used for the Council Leadership Development Program to the County Program Director Training represented this type of learning. Especially the notation of individuals who bridge various learning situations, carrying forward the lessons learned, echoed the “knowledge activist” role identified by Von Krogh et al. (2000) as critical to enabling knowledge creation. Von Krogh et al. also distinguished how the transfer of explicit organizational knowledge can be spearheaded

by various actors in the organization, dependent on the nature of the knowledge (e.g., knowledge about competitors, new market analysis technique, best practice, new production technique) and the vehicle for transfer). One subtle difference in the findings of this study is that the effective organizational learning highlighted how RDs and PDs were generally functioning as critical knowledge activists as well as identifying and empowering other knowledge activists for organizational learning.

The work of Nonaka (2004), Nonaka and Takeuchi (1995), Senge (1990), and Von Krogh et al (2000) also provided a means for understanding the finding of teamwork as a common feature of the organization and its learning. In particular, participants noted the teams developed to create new programs, work through transitional issues, or create new processes in Extension all were instrumental in creating new organizational knowledge. In contrast to the traditional matrix organization, members in Nonaka and Takeuchi's (1995) hypertext organization belonged or reported to only one of the three structures at any specific point in time. The co-existent three layers of the hypertext structure included: (a) the normal bureaucratic organizational structure, (b) the special projects which created knowledge, and (c) the knowledge base that stored and recontextualized knowledge from the other two. The creation of organizational knowledge and the flexibility to do so in Extension is still fairly well aligned with the matrix organization, based on the repeated concerns voiced regarding the inability to readily access the knowledge base at times and the practice of maintaining dual reporting lines for most organizational members assigned to special projects for creation of new knowledge and processes.

Nonaka and Takeuchi's (1995) research also showed that knowledge can be created and then "spiraled" throughout the organization if the context of the organization allowed for ongoing interaction, reflection and innovation. In addition, their research and that of Von Krogh, et al. (2000) indicated that cross-organizational, diverse, autonomous teams were essential to organizational knowledge creation and learning. The observation in this study that the real work of organizational knowledge creation most often occurred in smaller teams and groups, regardless of the level in the organization or the focus of the learning echoed the concept of micro-communities espoused by Axelrod (2000), Eales (2003), Gozdz (2000), and Von Krogh et al. (2000, 2001). Consistent with Von Krogh et al., the evolution of the micro-communities where learning was occurring was not always synonymous with officially designated teams. Like the micro-communities described by Von Krogh et al., the PDs' description of their work as a "team" indicated it functioned on the basis of reciprocal relationships and shared desire to learn with a common goal or vision. They had worked as a "fused group" (Von Krogh et al.), fostering the emergence of new tacit knowledge through socialization. The PDs as a micro-community showed signs of evolving into a "pledged group," organizing the rights and duties of the members through officially designating tasks, initiating action, and developing an internal coherence and identity. This micro-community of PDs also functioned with the tension of the allegiance to the various programmatic discipline-based arena that each led. Wenger's (1998) and Engestrom's (in Eraut, 2003) community of practice was also reflected by the focus on professional disciplinary learning within program areas as well as the learning focused around tasks (e.g., the work groups established to deal with transitional issues) (Eales). My findings are compatible with those from Venter's (2004) study of a subset of

the same organization, in which she found that the most important contributor to successful transfer of knowledge was the community of practice with which participants affiliated themselves.

Von Krogh et al. (2000) also provided perspective for the findings from this study related to the various modes or vehicles for creating, sharing, and transferring learning. The face-to-face interactions in Extension were crucial to sharing of tacit knowledge among individuals and having group conversations to form concepts (Von Krogh et al.). The findings from this study also concurred with the identification by Von Krogh et al. of virtual interaction as appropriate for creating the right context for internalization (individuals making explicit knowledge tacit) and documenting or converting knowledge into explicit forms. Von Krogh et al. acknowledged that the creation of shared space or *ba* for interaction could happen in a host of ways such as regular meetings, brainstorming sessions at a retreat, via the Internet or conference call, or when two professionals talked over drinks after work. My findings indicated that this same array of experiences were important to creating opportunities for interactions as part of the organizational learning. What was most critical in Extension, as also noted by Von Krogh et al. (2000, 2001), Marsick and Watkins (in Pace, 2002), Örténblad (2001), and Stewart (2001), was creating the right context appropriate to the type of learning. Understanding this aspect explains why some PDs and RDs were mentioned as successfully using the same technology or venue that another was faulted for, or even why the same middle leader might have effectively employed video conferencing (or face-to-face or an electronic e-mail) in one situation but not have found it useful for learning in another situation. Regardless, the

theme of communication as absolutely critical to organizational learning was clearly the message of nearly all the literature preceding this study.

The differences in perceptions about this organization's learning were not aligned with the position held by participants. Like Ayers (2002), I found that generally the longer participants had been employed by the organization, the more likely they were to communicate effective organizational learning. In addition, the participants in my study who had worked in cross-disciplinary and innovative programs also perceived the organization to be more involved in organizational learning. Finally, the context of the organizational consolidation affected perceptions, both positively and negatively with regard to descriptions of understandings about degrees and types of learning occurring.

Barriers to Organizational Learning

The barriers to organizational learning that surfaced from this study were related to the culture and structure of the organization, the behaviors of top and middle leaders, some specific middle leader issues, and technology. Several aspects of the culture were separately pulled out, such as insufficient communication, lack of trust, busyness, and lack of time because participants featured them so prominently in the interviews.

As this organization is a mature one (Schein, 1992) with a well-established culture and differentiated subcultures (Martin, 2002), the indication of the culture and history of the organization as a barrier provided no surprise. The culture, history and tradition, vision and goals, and ways of working were continually transmitted and reinforced tacitly, both to better and impede the evolution of organizational learning (Von Krogh et al., 2000). Because of Extension's history, it had a series of networks and interconnections, some of which had constrained the organization's ability to learn and

change, as noted most often by those working in agriculture and 4-H programs. Second, Extension is operating in a fragmented external environment with an increasing array of authority structures and funding sources. This had led to the development of routines for operation. As the comments from several leaders noted, the lack of innovation represented these routines as interpretations of the past versus an anticipation of the future. As Hanson (2001) and Von Krogh et al. argued, many of the organizational rules, strategies, programs, and technologies were “forces for stability rather than change” (Hanson, p. 648). Third, as Hanson noted, the external environment comprising federal agencies like the USDA (United State Department of Agriculture) and the Small Business Administration, state and local governments, foundations, partners, and contractors have and will continue to pressure the university and cooperative extension toward homogeneity, thereby lessening the freedom for innovation. The university’s culture and standards for tenure were also representative of Hanson’s third institutional barrier.

The complexity and diversity of the organization and mention of the “silo mentality” and “turfism” barriers reflected the fragmentation (Martin, 2002) and subcultures in the organization (Schein, 1992). The concept of time and busyness are also endemic to our Western orientation, as both Schein and Nonaka and Takeuchi (1995) observed. These also resonated with Hanson’s (2001) concept of spatial myopia as the result of subsystems or subgroups placing their interests above those of the larger organization.

Szulanski (2003) found that the most significant barriers, or sources of stickiness, across the various stages of transfer of learning were absorptive capacity (level of basic skill, prior knowledge and experience, and the existence of a shared language), causal

ambiguity (uncertainty regarding what the factors of production are, how they interact, and what causes success or failure), and the quality of relationships between the source and recipient of the transfer. The tacit nature of individuals' skills and the nature of collective action affected the transfer between situations. The retentive capacity, or ability to unlearn old practices and routinize new ones was also important. The leadership issues identified as barriers in my study aligned with Szulanski's findings. These leadership issues often dealt with the existence of shared language and assessment of basic skill and prior knowledge and experience as well as the quality of the relationships. The lack of communication and opportunities for collective action and learning noted in this study also resonated with Szulanski.

In contrast to my findings, Szulanski (2003) found that trustworthiness, jealousy, lack of buy-in and commitment, and individual motivation were not significant barriers to the transfer of organizational practices for the companies he studied. These incongruencies may be explained, in part, by understanding that the issue of trust is so closely related to relationship building (also verified by Von Krogh et al., 2000; 2001). Also the nature of the Extension organization may well have varied from the companies studied by Szulanski. The context of Extension's history, culture and organizational transition may also have accounted for these differences (Martin, 2002; Örténblad 2001; Stewart, 2001). Szulanski's study focused on the transfer of learning; whereas, my study included a broader definition that embodied transfer and creation of learning. Finally, the qualitative nature of my study allowed me to ask different questions.

The barriers to organizational learning identified by participants in my study were specific to the culture, structure, and individuals in the organization. As participants

discussed barriers, they noted that RDs and PDs were clearly part of these barriers at times. At other times, barriers were not directly linked to RDs and PDs. A finding of my study was that many of the barriers surfaced in their opposite nature as an enabler to organizational learning. Consistent with Duckett (2002), RDs and PDs also acted to weaken (and sometimes reinforce) barriers to learning. As we turn to the discussion of the roles they played in fostering or inhibiting organizational learning, these barriers interweave in the discussion.

*Question 2: Role of Regional Directors and Program Directors in Fostering
Organizational Learning*

The role of the RDs and PDs in Extension was critical in fostering organizational learning. Ellinger et al. (1999), Ichijo (2004), Nonaka (2004), Nonaka and Takeuchi (1995; 2004), and Von Krogh et al. (2000, 2001) similarly asserted the role of middle managers essential to organizational learning. In discussing the findings from this study pertaining to the role that RDs and PDs played as middle leaders, I will look at how the roles of these middle leaders compared to those of mid-level leaders identified by other researchers. Second, the findings about the critical underlying aspects that contributed to the successful fulfillment of these roles will be explored in light of the literature.

As noted earlier, Extension's structure was, in many ways, typical of the matrix organization identified by Morgan (1997) (See Figure 5.1). The analysis of data showed that this was true much of the time; however, many examples included a blurring of these lines. Some faculty were responsible to more than one PD because the program was multi-disciplinary. Some examples of cross-organizational learning and projects involved an RD and/or PD serving in a role of leadership that spanned these boundaries. In the

recent years with decreasing budgets, middle leaders have been tapped to fulfill more of these roles. Several who had been involved in leadership in these different planes or spheres were noted for the same types of roles and use of similar mechanisms whether operating within their traditional domain or a specific cross-organizational project. Those who were frequently discussed as having been key in enabling learning in these venues demonstrated the cross-leveling and multiple learning spirals posited by Nonaka and Takeuchi (1995) and Von Krogh et al. (2000).

The roles identified in this study do not represent all of the roles played by the RDs and PDs but those noted to foster organizational learning. The following provides a look at the roles identified to contribute to this learning.

Middle Leader Roles That Foster Organizational Learning

Designer. In this study, participants identified the RDs and PDs as providing leadership to program design and implementation and promoting the big picture and multi-disciplinary programming and learning. Dhillon (2001) reported similarly that leaders had provided guiding principles for the project he studied. In this study, participants indicated that PDs had a fair amount of autonomy in setting parameters and detailing the vision for their program area. RDs, likewise, had a great deal of autonomy in designing structures and processes within their region. When creating a bigger picture and cross-functional or multi-disciplinary approach, RDs and PDs fostered learning. Takeuchi (2004) also posited that “absolute vision“ that “gets to the very heart of why we exist” (p. 357) is one of several essential roles that leaders who establish direction play in fostering learning. The ability to think in terms of the big picture or from a systems

perspective as characteristic of actions that promoted learning was also consistent with Fullan's (2005) findings.

Looking at the opposite side of the coin, when too narrowly concerned with their own program or region, RDs and PDs were noted as contributing to turfism and the silo mentality that restricted organizational learning. Such behavior was consistent with Collins (2001), who noted Level 5 leaders think of the good of the whole versus themselves, and Senge (1990), who advocated a systems approach. Ellinger et al. (1999) also reported that managers encouraged employees to broaden perspectives and see things as others do and created systems for continuous learning, both consistent with the design role indicated by participants in this study.

Enabler. Participants in this study richly described the enabling function carried out by RDs and PDs. Their roles included encouraging, coaching, counseling, mentoring, convening, facilitating, modeling, engaging in collaborative learning to enable organizational learning. Ellinger et al. (1999) found that the most significant mechanisms employed by managers to create organizational learning were those that empowered and facilitated employees. Like Ellinger et al., 1999, participants in this study often discussed how the RDs and PDs' bringing of people together empowered them for learning. Consistent with Nonaka and Takeuchi (1995) and Von Krogh et al. (2000), this enabling function created opportunities for sharing of tacit knowledge, developing concepts, testing them (justification), producing new educational products or processes, and converting this learning into established practice and tacit knowledge. My study also confirmed Boreham and Morgan's (2004), Nonaka's (2004), Takeuchi's (2004), and van Eijnatten, van Galen, and Fitzgerald's (2003) rendering of the importance of dialogue in

integrating diverse individual perspectives into the shared collective learning and facilitating worker-led initiatives. Participants highlighted dialogue in discussions of how RDs and PDs had contributed to learning and the failure of leaders to provide ample opportunities for dialogue as a barrier to organizational learning.

My findings about the engagement of RDs and PDs in several levels of learning (Figures 4.9 and 4.10) were consistent with Nonaka and Takeuchi's (1995, 2004) concept of cross-leveling of knowledge. RDs and PDs engaging in this learning collaboratively themselves contributed to the cross-leveling. Like Leithwood et al. (1998), participants in this study repeatedly cited the creation of a shared decision making and participation culture and structure as critical to enabling organizational learning. The discussion of barriers also reflected the importance of these enabling roles. The ability to nurture multidisciplinary teams, provide coordination and conflict resolution were part of this enabling function depicted by Morgan (1997).

In dealing with conflict, RDs and PDs allowed for the opportunity of opposing views to surface and be resolved constructively. Fullan (2005), Nonaka and Takeuchi (2004), Osono (2004), and Takeuchi (2004) recognized the importance of creating new points of view through dialogue and discussion, or productive conflict (as Fullan termed it). Nonaka and Takeuchi as well as Osono demonstrated how organizations form a spiral of interaction between strategy-making processes that focus on implementation and action with a unified voice on one hand, and emergent strategy-making processes on the other. The emerging-strategy making processes involve engagement of multiple voices, participation, and diversified perspectives. They asserted both are essential for organizational learning and knowledge creation, sharing, and transfer. Therefore, the

findings in my study that RDs and PDs engaged in both directive and enabling aspects reflected the need for balance that comes from reading the context, flexing with the need, and embracing constructive conflict.

My findings also resonated with Schein (2004)'s assertion about learning-oriented leadership. He maintained, "Leaders themselves must first hold these assumptions [about basic human nature, time frame, sharing of information, and diversity [see p. 36 in Chapter Two for more details], become leaders themselves, and then be able to recognize and systematically reward behaviors based on those assumptions in others" (p. 406). Fullan's (2005) asserted the importance of creating a cadre of learning leaders for bringing about systemic change. Similarly, Perkins (2003) identified the necessity for "developmental leaders" who "function as exemplars, facilitators, mentors within a group" (p. 219) to fostering and sustaining organizational learning.

Evaluator/Administrator. This function was identified as one that entailed administration (Dhillon, 2001) and supervision of resources, boundary setting, and evaluation. Consistent with Ellinger et al. (1999), RDs and PDs' provision of reflective and third-party feedback also fostered organizational learning. The evaluator function however was strongly related in Extension to the program evaluation component, a phenomenon especially striking in this study as compared to previous studies. The parameters of this role as identified in this study had similarity also with Leithwood et al. (1998) note of the importance of the allocation of resources for learning, professional development, and evaluation as among the critical actions of leaders fostering organizational learning in the K-12 educational organizations studied. As administrators, RDs and PDs also developed "creative routines" (Takeuchi, 2004), which broke people

out of old ruts or Extension routines embedded in the culture. Such examples included the writing of handwritten notes by one RD and the convening the monthly advisory council for dialogue and learning by a PD.

Bridger. Participants indicated that RDs and PDs function as a bridge in fulfilling the roles of scanning the environment (Duckett, 2002), analyzing, filtering, and synthesizing information (Nonaka & Takeuchi, 2004), brokering and connecting resources, serving as a liaison or bridge between various parts of the organization (Nonaka, 2004), advocating, advising, and collaborating (Duckett). These various roles help explain Lindley and Wheeler's (2001) concept of working on multi-dimensional goals as one aspect of organizational learning. This rich array of roles supported descriptions of middle leaders as knowledge engineers (Nonaka, 2004; Nonaka & Takeuchi, 1995) who provided the key bridge between visionary top leaders and the chaotic "make it work" front-line employees (regional and state faculty in this study). RDs and PDs translated the knowledge vision for their programs, regions, or projects in light of the organizational vision and communicated the expectation for fit into the big picture as suggested by these authors and Ellinger et al. (1999). These middle leaders synthesized the tacit knowledge of top leadership and campus and regional faculty and made tacit knowledge explicit within the organization, through participation in the "middle-up-down management" as Nonaka and Takeuchi called it. They noted, "[M]iddle managers are at the intersection of the vertical and horizontal flows of information in the company." My findings about the engagement of RDs and PDs in these bridge roles (Figures 4.9 and 4.10) illustrated how Nonaka and Takeuchi's (1995; 2004) concept of cross-leveling of knowledge occurred in the Extension organization. Hock's (1999)

acknowledgement that middle leaders need to spend significant time communicating up the ladder and across the organization provided additional congruence with the findings of this study. Nonetheless, the findings of this study elaborated more fully the extent of the bridge function. These roles along with those of enabling served to foster the vertical as well as the horizontal knowledge creation and exchange. The context for this bridging was both internal and external, each being noted as important and inter-related to organizational learning.

The barriers to learning also addressed the bridging roles. Most of the barriers associated with middle leadership issues were indicative of the failure to carry out the bridging function through liaison, coordination, advocacy, advisory, and brokering roles. Most noted was the lack of collaboration or horizontal learning between RDs and PDs and among each of them as a group.

Lipshitz and Popper's (2000) identification of the importance of leadership style in fostering organizational learning *by* the organization versus learning *in* the organization was also consistent with many of roles identified as part of the four key functions of designer, enabler, evaluator, and bridge that RDs and PDs fulfilled to foster learning. In the converse, their failure to fulfill these roles and functions often inhibited organizational learning. The work of Nonaka et al. (2001); Nonaka et al. (2000); and Von Krogh et al. (2000, 2001) provide further illumination to the observations and the findings of this study that a set of underlying factors were key to how these roles were carried out. These researchers advanced the Japanese concept of *ba* and the role of care in organizations with regard to top and middle leaders' enabling organizational learning and knowledge creation.

The Emotional Dimension of Organizational Learning

The findings of this study included a distinct non-rational and emotional dimension to the ability of RDs and PDs to foster organizational learning. These are what I have termed in Chapter Four the foundational themes that underpinned the basic functions, roles and action of RDs and PDs. These dimensions or themes were consistent with Ichijo (2004); Nonaka, Konno et al. (2001); Nonaka, Reinmoeller et al. (2000); Nonaka and Toyama (2004); Osono (2004); Stewart (2001); Takeuchi (2004); and Von Krogh et al. (2000, 2001).

The concept that leaders do not create organizational learning but a culture for that learning is one that was embraced also by Fullan (2001) and Schein (1992, 2004). For example, the various enabling and bridging roles implicitly and explicitly recognized the change process, focused on relationship building, provided mechanisms for creating and sharing knowledge, and engaged people in making sense of the changes and learning (Fullan, 2001). When fostering learning, RDs and PDs were involving people in the learning process collaboratively as a means of transforming the organization (Hock, 1999; Nonaka, 2004; Stewart, 2001).

In this study, the themes of relationship building, trust, communicating, and caring resonated especially with Ichijo (2004), Nonaka et al. (2000), Nonaka et al. (2001), and Von Krogh et al. (2000), who rooted the key knowledge enabling behavior of leaders in the Japanese concept of *ba*. Central to *ba* is the creation of shared physical, mental, and virtual space that fosters emerging relationships and makes possible the interactions for collective learning. The fostering of care, trust, and commitment noted by these authors were at the core of these foundational themes in the roles of the RDs and

PDs. In particular, the RDs' and PDs' attention to how things got done, as well as the learning product, related to the importance of social relationships that fostered cooperative sharing and caring critical to the *ba* for organizational learning. When participants described these fundamental aspects in relation to examples of effective organizational learning, the components of shared knowledge and high caring were present (Von Krogh). Likewise, ineffective examples and discussions of barriers often reflected situations in which everyone or every program was out for itself, a situation of low caring and focus on individual knowledge acquisition (Von Krogh). Competition, silo mentality, turfism, and unwillingness to engage highlighted this latter situation. Nonaka and Takeuchi (2004) provided additional insight into these somewhat opposing aspects in their discussion of the dialectic organization, where synthesis of opposites occurs as part of the learning process and contributes to the competitive advantage of an organization.

The theme of selecting the right people also harkened back to the understanding of what characteristics were necessary for faculty to engage as participants in the knowledge creation and sharing process (Nonaka & Takeuchi, 1995; Nonaka & Toyama, 2004). Likewise, Collins (2001) noted the utmost importance of getting “the right people on the bus” (p. 41). This concept permeated the roles of RDs and PDs in hiring, bringing people to the table, choosing mentors, choosing people to participate in programs and teams and to lead program efforts or projects, and as part of selection and hiring process for other middle leaders and top leaders. Finally, Von Krogh et al. (2000) related to this aspect of choosing the right people in their discussion of “mobilizing knowledge activists.” While their usage of this term implied selection of leaders for projects, my

findings suggest that the autonomy provided in Extension to state and regional faculty for program development and delivery placed each of them in the role of knowledge activist as they engaged in the learning enterprise and collaborative learning with the customers of Extension (learners).

Von Krogh et al. (2000) identified knowledge activists as those answering to top leaders. As such the description has merit and fit for RDs and PDs in their role. Specifically, the “knowledge activist” might not necessarily be a middle leader but someone who carries out the roles of catalyst, coordinator, and merchant through the identification and creation of micro-communities in the organization to align with the vision of the organization, connecting micro-communities, developing cooperation, and highlighting successes. Again these are successfully accomplished with a basis of communication, trust, and relationships that engender socialization and sharing of tacit knowledge (Kontoghiorghes, Awbrey, & Feurig, 2005). I would argue that successful augmentation of an organizational learning culture and learning occurred when RDs and PDs both acted as knowledge activists and empowered knowledge activists, highlighting another aspect of their role in learning and modeling as part of the enabling function (Eales, 2003).

If at this point, the discussion of foundational themes and roles of RDs and PDs in fostering organizational learning sounds circular, they do appear to be that inextricably linked. Returning again to the underlying foundational themes from this study, RDs and PDs created shared spaces for organizational learning and created ownership and trust by nurturing caring relationships and communicating honestly the purpose and vision while engaging in the functions of designing, enabling, evaluating and administering, and

bridging. In doing so, there was a great degree of consistency with Nonaka et al. (2000), Nonaka et al. (2001), Nonaka and Toyama (2004), and Von Krogh et al. (2000; 2001). This recognizes that Extension has not arrived at the ideal state of organizational learning, but certainly the necessary roots are in place.

Conclusions

This research identified the nature of organizational learning occurring within the cooperative extension organization of a Midwestern land grant university and how RDs and PDs, as middle level leaders, fostered or hindered organizational learning. Six primary conclusions from the study have been organized in relationship to the research questions. Two conclusions relate to the nature of organizational learning, and four relate to the role of RDs and PDs in fostering organizational learning.

The Nature of Organizational Learning

Conclusion #1: Organizational learning that will transcend and transform the organization will necessarily include adaptive and transformative learning, multi-directional learning, experiential and formal learning, and focus on both content and process.

The nature of the organizational learning is complex and perhaps best depicted as occurring within four co-existent dimensions of learning. These four dimensions represent how the organization deals with change, the directional aspect of learning across or up and down the organization, the formality and experiential aspect of learning, and the process versus content focus on the learning. Figure 5.2 portrays these four dimensions of organizational learning in Extension. Any specific example of organizational learning would exist within this four dimensional sphere.

The adaptive-transformative dimension of learning. Adaptive and transformative learning are rooted in working on existing assumptions versus challenging those assumptions in order to transform the learning. As represented by the first axis, both adaptive and transformative learning were occurring. Learning that tends to be more transformative as a result of challenging assumptions was less common. Where transformative learning had occurred, these learning processes tended to gather a broad and diverse array of people and perspectives to work as a team, which included those affected, i.e., the customer or learner served. The team members worked as equals in learning or as co-learners. The learning process involved inquiry and questioning of the status quo and existing assumptions while using the past as a source for learning and adaptation. The processes involved both the cognitive and affective dimensions of learning.

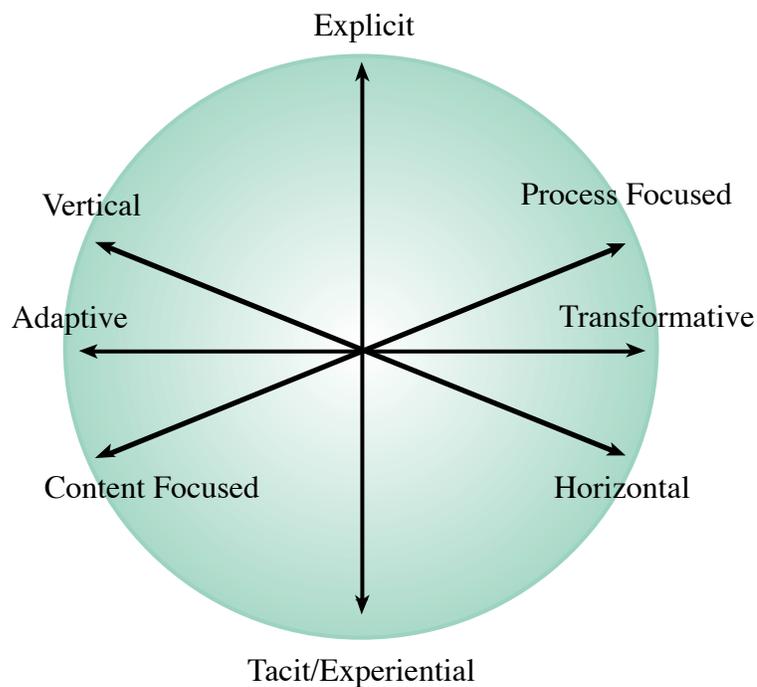


Figure 5.2. The four dimensions of organizational learning.

The directional dimension of learning. The second axis represents the directional aspects of learning: vertical, horizontal, or both (the latter would fall in the middle of the axis). A great deal of the organizational learning appeared to be occurring in the vertical dimension; however, with the evolution of the PDs as a learning community and the indication that the RDs were moving in the same direction, the groundwork was being laid for more horizontal learning opportunities. Other opportunities were available for horizontal learning yet the learning in this realm was noted to be lacking. In addition, the vertical learning that was occurring was often noted to be in need of bi-directional communication. Certainly the ideal for organizational learning is cross-disciplinary, lateral, and vertical learning that involves communication flowing in all directions.

The tacit-explicit dimension of learning. The third axis depicts the degree of tacit, informal, or experiential learning as opposed to explicit or formal learning. Experiential and informal learning that relied on tacit knowledge was a crucial part of the organizational learning in the organization. The long-recognized formal learning opportunities and the use of explicit knowledge were also a necessary aspect.

The content-process dimension of learning. The fourth axis indicates the focus on learning that is content-oriented versus process-oriented. Organizational learning was occurring in both arenas; however, the most important learning was that which dealt with the processes used, even within content-specific areas. The process of engaging people was noted as one of the most important aspects that had transcended the organization. The effective use of diverse teams to develop organizational knowledge also occurred in tandem with the focus on process. The model developed by Von Krogh et al. (2000) for the knowledge creating organization as a company cycles through the three different

types of knowledge creation indicated that as the company shifts its focus from content toward process and from existing knowledge towards new knowledge, its learning moves from capturing and locating knowledge to transferring and sharing of knowledge and learning to enabling knowledge creation. The process for engaging people in collaborative learning and dialogue is central to organizational learning and creating the competitive advantage in Extension.

Relationship among the dimensions of learning. An either-or approach is not well suited to looking at each of these dimensions. Rather a both-and approach is more appropriate to thinking about organizational learning in a complex organization like Extension. The work of the various authors who contributed to Takeuchi and Nonaka's (2004) book detailing the dialectic organization supported this concept. Organizational learning that will transcend and transform the organization will necessarily include adaptive and transformative learning, multi-directional learning, experiential and formal learning, and focus on both content and process. However, recognition of and attention to the horizontal, experiential, and process learning are essential to the transformative and evolutionary learning espoused by Von Krogh et al. (2000).

Conclusion #2: Organizational Learning Represents A Complex System Reflective of the Organization's Culture and Can Be Likened to a Bicycle in the Extension Organization.

The work of Nonaka and Takeuchi (1995, 2004), Osono (2004), and Von Krogh et al. (2000) were found to be especially applicable to the Extension organization within the context of the land grant university in higher education. The collegial aspect of higher education (Tierney, 1991; Birnbaum, 1998), I would argue exists uniquely in Extension at the beginning of the 21st Century—a time when increased transparency, accountability,

relevance, and engagement are demanded by society. The input and collective decision making are more intentional and focused and necessarily must be underpinned by a knowledge creation and sharing paradigm for organizational learning. How these pieces all fit together for organizational learning can be analogous to a bicycle (depicted in Figure 5.3). The machine itself is complex, composed of the two wheels representing programming. The hubs of the wheels are each likened to RDs and PDs, the spokes indicate the roles RDs and PDs play in fostering organizational learning, the tires are the front-line faculty (where the rubber meets the road). The frame portrays the foundational factors just discussed that hold it all together. The needs of those served and the changes in the environment are the force that pedals the bicycle. The bicycle chain that works to convert the needs of those served into programming may be likened to the organizational knowledge base. The gears are what allow the bicycle to move between programs and projects as needed.

The top leadership generally provides the overall steering for the organization. I would argue, however, that in the Extension and the university culture, the overall direction is one established collegially and collaboratively, more so than in business. The top leadership has the responsibility of keeping the overall bicycle in working order—responding to needs of the state and linking these to Extension and the university. Unique to Extension, and perhaps to higher education, is also the autonomy and responsibility that the PDs and RDs have in setting direction, again collegially and collaboratively.

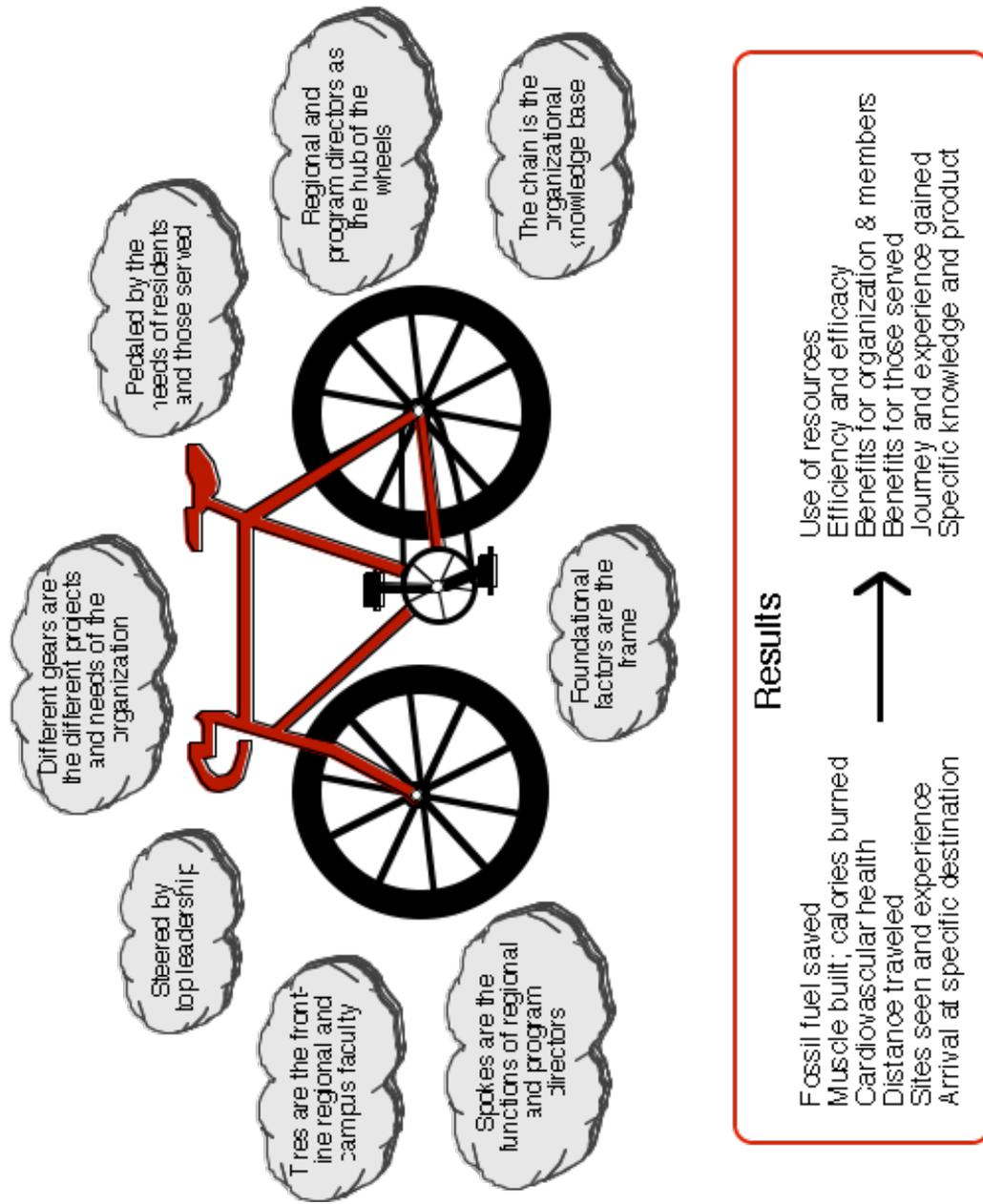


Figure 5.3. The bicycle analogy: The system of organizational learning in Extension

Every analogy has its limits, but the bicycle does portray many of the linkages found to be necessary for the system of organizational learning to function in Extension. As a result of the function, how one views the outcomes varies. The results such as efficiency, efficacy, the experience itself, the knowledge gained and created, and the new product are all integral to the experience and the continued viability of the bicycle for the future. The bicycle may represent both the organization and its learning system.

Roles of Regional Directors and Program Directors

RDs and PDs, as middle leaders, played a rich array of critical roles in fostering organizational learning in Extension, both in carrying out their positional functions and in providing leadership to special projects. The roles performed by both were similar although the context varied. RDs focused on the geographic region while PDs focused on specific program areas statewide. Some RDs and some PDs also had served in leadership roles for statewide or non-program specific projects. The following conclusions relate to the roles of RDs and PDs in fostering organizational learning.

Conclusion #3: RDs and PDs, as Middle Leaders, act as Knowledge Activists to Foster Organizational Learning via the Four Basic Functions of Designing, Enabling, Evaluating, and Bridging.

RDs and PDs facilitated organizational learning through four basic functions: designing learning experiences, enabling learning, evaluating and administering, and bridging. Effective organizational learning entailed these middle leaders performing the array of roles associated with each of these functions versus simply focusing on one aspect to the exclusion of others. These different functions reflect the affective and

cognitive aspects, and structural, political, and cultural aspects involved with fostering organizational learning.

Barriers to organizational learning were generally endemic to the organizational culture and structure, the external culture and structure, and leader behavior. When participants noted that RDs and PDs had hindered organizational learning, these middle leaders had acted in ways antithetical to the roles and underpinning foundations that foster learning. In addition, behavior that sought to hold too tightly the reins of control often created turfism and resentment and contributed to the subtle sabotage by faculty to thwart organizational efforts.

Other barriers were a function of leaders, top or middle, failing to recognize the importance of the convening, questioning, dialoguing, and creating of opportunity for sharing of tacit knowledge and the emergence of new concepts. Sometimes, faculty themselves failed to see the value of these activities because the vision and role of learning was not clearly shared or made specific to the context.

RDs and PDs fostered organizational learning by removing or lessening barriers represented as cultural and structural in nature. They tackled these by carrying out the roles and functions to foster learning. Sometimes, this entailed acknowledging what might not be changed, such as tenure guidelines on campus, and building bridges and creating dialogue for understanding. Then participants could determine ways to accommodate the challenges and act in new ways or push for new guidelines. As an advocate, the RDs and PDs carefully chose the boundaries to span and to stretch for change.

Conclusion #4: Critical to the Organizational Learning is the RDs and PDs, as Middle Leaders, Learning and Working Together.

Critical to organizational learning, and even representing learning itself, was the RDs and PDs working and learning together. Three specific aspects to working together were manifest. First, the PDs were working as a micro-community, sharing and learning together and becoming a team. The RDs as a group indicated the need for their group to do the same. The need for consistency among them in certain principles of operation emerged from the interviews across various levels of the organization. Second, the collaboration and learning among RDs and PDs as a larger group of middle leaders was essential. Third, collaboration and cooperation among individual RDs and PDs on a regular basis was highlighted as critical to fostering and limiting barriers to organizational learning. These three arenas of collaboration comprised a part of the modeling role that RDs and PDs play in enabling learning.

Conclusion #5: Creating a Culture of Care and Space for Learning Provides an Incubator for Transformative Organizational Learning, and the Middle Leaders Play a Key Role in this Incubation.

Key to the fostering of organizational learning by middle leadership is the creation of a culture that fosters organizational learning through caring and providing space for learning. This culture includes a focus on relationship building, trust, communicating, and caring. RDs and PDs who fostered learning created the shared physical, mental, and virtual space that fosters emerging relationships. The aspect of convening and facilitating organizational learning and opportunities for shared learning was also of great importance to participants. The modes for convening included the use

of face-to-face, synchronous distance technologies (such as video conferencing, Centra®, and telephone conferences), and asynchronous distance technologies (such as the web, e-mail, electronic newsletters). While there was clear preference for face-to-face venues, the key to effective use of the various venues for learning appeared to be one of choosing methods appropriate to the situation and learning task and phase. For example, face-to-face meetings augmented socialization and sharing of tacit knowledge because the development of relationships was easier. However, it was not the only way that relationships were fostered. Providing good structure for conversations and dialogue was the most critical factor regardless of the venue used.

These foundational ways of thinking and operating were expressed by working collaboratively, building trust and valuing each and every person, communicating openly and regularly via a variety of means appropriate to the situation, seeking and valuing input and participation (and using it), and thinking in a systems way. RDs and PDs who were fostering organizational learning sought balance between providing structure and flexibility for creativity. They provided direction and vision but used participatory processes to develop and sharpen the vision. They purposefully included informal time for experiential learning and socialization as part of the shared learning experiences. They acted consistently, actively engaged in learning themselves, and chose the right people to work in the organization and for specific tasks.

When RDs and PDs were acting out of the foundational beliefs and values and performing the basic functions through the roles identified in this study, the likelihood of transformative organizational learning is increased. However at this center of the culture of care are the foundational beliefs, which led to the creation of space for learning.

Nonaka, et al. (2001); Nonaka et al. (2000); Nonaka and Toyama (2004) and Von Krogh et al. (2000) called this concept energizing *ba*, “the existential place [including virtual place] where participants share their contexts and create new meanings through interactions” (Nonaka & Toyama, p. 102). Takeuchi (2004) most succinctly related that knowledge is created through dialogue, creative routine, and absolute vision in a “shared context of dynamic place called *ba*” (p. 357). Transformative organizational learning requires top leadership’s vision, support and nurturance and recognition that middle leaders are often the critical bridge to front-line faculty. Therefore, the RDs and PDs in their creation and extension of a culture of care and establishment of *ba*, or a series of multiple spaces for interaction within the organization, are key to incubating organizational knowledge and learning.

Conclusion #6: Cross-Disciplinary Communities are Essential for Overcoming the Silo Mentality and Creating Transformative Organizational Learning.

Finally, cross-disciplinary communities for learning and organizational knowledge creation are essential to transformative organizational learning. Such communities are a part of the transfer and cross-leveling functions discussed by Nonaka and Takeuchi (1995) and the creating of a culture for change identified by Fullan (2001). The increased complexity of the environment and needs of those served by Extension demand an organization that functions beyond a “silo mentality.” Fostering of effective organizational learning nearly always involved middle leaders embedding into all of their roles a multi- or cross-disciplinary approach and/or a broader view than had previously existed.

In summary, organizational learning is situated within the context of the organization and is as complex as the organization. Its nature entails processes that simultaneously comprise ways of responding to change, multi-level and directional aspects, informal and formal learning, content and process foci, and a social or shared learning approach. The organization's survival and ability to thrive is dependent on the ability to embrace all of these aspects of organizational learning. The RDs and PDs, as middle leaders in Extension, play a critical role in fostering organizational learning as they design, enable, administer and evaluate, and create bridges for learning. Their strategies are complex and show more breadth when they embrace and act out of underlying foundational beliefs that embody caring, relationship building, trust and communication, engaging the right people for a cross-disciplinary approach, and sharing the vision.

Although the findings of this study are very rich, they represent only a small piece in a very large portrait of organizational learning. There remain many questions and additional opportunities for study before we understand organizational learning in the context of complex educational organizations like Extension, which are nested within a larger equally complex organization. Implications for the Extension organization studied may be drawn from this study. Additionally, the findings of this study may provide insights for other cooperative extension organizations, higher education, and perhaps other organizations.

Implications and Recommendations for Practice, Education, and Future Research

This study began with the desire to explore how organizational learning was occurring within Extension. Understanding the nature of organizational knowledge creation and learning, I also sought to understand how RDs and PDs contributed to or hindered such learning. The findings of this study have implications for Extension, higher education and potentially other organizations and educators, and for researchers. While the implications for these three groups are related, they will be discussed separately in order to highlight specific recommendations and opportunities.

Implications for Practice and Recommendations

The impetus for this specific study arose out of my own organizational role and experience with organizational learning. In addition to my desire to explore these concepts, the participants—especially the top and middle leaders—have been interested in the findings. There are numerous implications that can be drawn from the findings as this study included a wide array of organizational perspectives and participants provided a rich bed of data from which to work. Here, however, I shall discuss six key recommendations that most prominently surfaced for Extension from the integration of the findings, discussion and conclusions.

With the changes facing Extension, the ability to adapt, challenge previous assumptions, and chart new paths is critical to responding to change, carrying out the mission, and surviving as an organization. In order to do so, the culture for organizational learning must be cultivated and cannot be left to chance. The art of cultivation requires achieving a balance between providing structure and control and allowing sufficient

freedom and autonomy for innovation. The following are recommendations for cultivating an organizational culture in which learning and innovation can occur.

1. Create and Communicate an Organizational Vision for Learning.

Certainly one compelling reason for purposeful engagement in organizational learning is that Extension, and the university for that matter, has a responsibility to model learning as an organization that exists for the purpose of engaging the university in affecting learning among the state's residents. As some participants noted, the need for a vision of organizational learning has sometimes been fuzzy and lacked the teeth of clear communication and commitment. The most important aspect of the vision may not be the rolling out of this vision in isolation as much as integrating it within the fiber of everyday operations. This is consistent with the identification of the processes for learning being what has salience for transfer across the organization.

Actions that communicate the importance of organizational learning often speak louder than the words spoken. Modeling expected roles and behaviors from the top down, the bottom up, the middle up, middle down, and all across is essential. Rewarding behaviors that contribute to shared organizational behavior, whether carried out by middle leaders or others also communicates the value throughout the organization. Such rewards include sharing publicly in the electronic weekly newsletter, presenting awards, celebrating success, and providing opportunities for professional development, etc. Certainly verbal and written communications are also a valuable part of the picture.

2. Support shared learning.

Organizational members, dispersed by geography and by discipline, to deal with an incredibly complex menu of constituent learning needs require shared learning

opportunities. Because education is a central mission of the organization, opportunities for organizational learning require a focus on content and process. However, PDs and RDs must recognize that the process for creating and delivering programming is what provides the quality and the competitive edge for the organization, regardless of the content.

Recognize the organizational learning cycle and the role of socialization and tacit/experiential knowledge. Like Venters (2004) also reported, much of the sharing and transfer of key organizational learning and knowledge was accomplished through the informal sharing, the socialization, and the sharing of tacit “know how” among organizational members at all levels. The focus of the mentoring program for new faculty attempted to recognize this aspect. However, the recontextualization of organizational knowledge, which occurs through the mentoring program as well as other processes, has room for improvement. New, as well as experienced, faculty need opportunities to interact and learn the “best of practices” and the culture through formal and experiential learning that comes from working and reflecting with other faculty. The same can be said of new PDs and RDs.

Recontextualize organizational knowledge. Second, the learning cycle also involves externalization or making explicit the knowledge embedded and encoded in the organization. This requires attention to recontextualizing the knowledge base of the organization for new and existing organizational members (Lehr & Rice, 2002). As participants noted, the geographic regions vary with regard to culture, politics, geography, population and needs. Likewise, the programs vary due to subcultures, content, constituents served and their needs. Even for the organization at large, changes

in the environment or funding or society may require a recontextualization for new applications of organizational knowledge. Therefore attention needs to be given to making explicit what is known for recontextualizing, testing, and recombining to create new knowledge when needed. Encoding and embedding the new knowledge in a knowledge base or the internalization of learning (Nonaka & Takeuchi, 1995) is not to be overlooked. Each of these will be addressed in further detail in the context of other recommendations and implications below.

3. Reframe the focus on structure.

While structural issues often are discussed in terms of the official reporting lines and budgetary allocations as depicted on an organizational chart, I suggest the real structural issue for organizational success is the alignment (Morgan, 1997) of various systems to foster organizational learning. Nonaka and Takeuchi's (1995) hypertext organization suggested that the appropriate structure is one of three simultaneous structures—normal, special projects, and knowledge base—within which an organizational member might be fluid but functions only in one level at any given time. The hypertext organization offers several challenging implications for Extension as a knowledge creating organization. These include: (a) enhancing the knowledge base as a structure to support organizational learning, (b) dealing with the competing interests created by a matrix organization, (c) reducing the silos and creating more multi- and cross-disciplinary approaches, (d) expanding the circle of engagement, and (e) embracing the apparent paradoxes to become a dialectic organization.

Enhance the knowledge base as a structure to support organizational learning.

Structurally, the role of a knowledge base, as Nonaka and Takeuchi (1995) labeled the knowledge management system, was also critical to the Extension organization. The knowledge base existed primarily as an informal mechanism, passed on through socialization, and with some fragmented formal or explicit record. These explicit aspects were generally related to the organization's mission, vision, and strategic plan. What often lacked was a clear way to tap the tacit knowledge as well as a system to explicitly capture important learning. Such a system could form the basis of for the knowledge base layer of a hypertext organization for organizational learning and knowledge creation (Nonaka & Takeuchi, 1995). The deficiency of such a system denoted a real barrier for organizational learning, especially for cross-leveling and transfer activities. Keeping in mind the function and appropriate role for a knowledge management system and understanding the nature of organizational learning can assist with the design of an appropriate system.

One key aspect of the knowledge base as part an organization's structure is attending to purposeful reflection and debriefing of programs, projects, and processes. The reflection needs to be both an individual and a group activity that allows for dialogue and questioning in order to make appropriate shifts in procedures as well as underpinning assumptions and beliefs. Such activity was modeled throughout the development of the Council Leadership Development Program. Therefore, reflection should be part of the constant feedback loop. RDs and PDs can be critical to modeling and supporting this activity. The support of top leadership is also important.

Deal with the competing interests that are created by a matrix organization.

Perhaps the most challenging concept of the hypertext organization is the degree of flexibility required and the movement beyond the need to require organizational members to maintain their normal reporting lines while functioning as part of a special project (knowledge creating endeavor). While critical to the innovation process, this is a serious challenge as nearly all positions have multiple stakeholders, supervisors, and demands in their normal work. Working on the next aspect may help address this challenge.

Reduce the silos and create more multi- and cross-disciplinary approaches. The entrenchment in silos was certainly identified as a barrier to organizational learning. The findings themselves suggest several recommendations. First, engender and communicate the big picture. This has to start with the top leaders and must be a consistent priority of middle leaders, who are a key to helping front-line faculty and advisory groups and other stakeholders understand the bigger picture. Second, the continued shared learning and collaborative work among RDs and PDs should foster communication, trust, shared understanding, responsibility and risk-taking to blur the lines, reduce the turf, and include more perspectives among regional and state specialists. RDs and PDs are critical role models for embracing this approach and shifting the culture. They will necessarily have to share power and let go of control in some cases.

Expand the circle of engagement. Expanding the circle of engagement also implies creating meaningful opportunities for participation among existing organizational members. However, with the call for engaged universities and the findings regarding the nature of transformative learning in Extension, this also implies bringing in faculty without official Extension appointments, involving the customer or learner, engaging the

local extension councils and other partner organizations. Likewise, recognizing the ability to conduct local programming that engages an array of local stakeholders in the learning process to shape action may be the key to creating a competitive advantage for Extension's future, when one applies Collin's (2001) hedgehog concept to Extension. The hedgehog concept revolves around the metaphor that companies which succeeded in the long haul were like simple, dowdy creatures that focused consistently on "one big thing" as opposed to the comparison "foxes"—companies that were crafty, cunning, but inconsistent (p. 119). The "one big thing" that underpinned Collins' hedgehog concept involved understanding three intersecting circles representing these core concepts for the organization to advance: (a) what the organization is deeply passionate about, (b) what the organization can be best in the world at, and (c) what drives the organization's economic engine. Engagement for collaborative learning to transform learning in communities may well drive the economic engine of the future. Top leaders, RDs, and PDs are key to fostering and modeling engagement in order for it to ultimately permeate the culture and the organization. RDs and PDs cannot wait until they feel they have mastered internal engagement with existing organizational members. A "both-and" approach is required.

Embrace the apparent paradoxes to become a dialectic organization. As Nonaka and Takeuchi (2004) discussed, the dialectic organization is one that copes proactively with change and reconciles the apparent paradoxes, or opposites through synthesis and dialogue. For Extension, these opposing paradigms include the apparent contractions in individual and organizational learning, the contrasting aspects within each of the four dimensions of organizational learning, the structures of hierarchy and the flattened

participatory task force, the tension between the needs of the academy and the people of the state, and the diversity that exists in the five program areas which must be held in balance with the need for organizational accountability. Nonaka and Takeuchi also asserted that there is an East versus West contradiction, which may become more important as the population served and work force of Extension become increasingly diverse. Embracing these apparent paradoxes is accomplished by supporting dialogue, by choosing middle leaders with the capacity for creating a culture of sharing and rewarding middle leaders for carrying out the functions that foster organizational learning. The same can be said about selecting top leaders who support and understand the organizational learning process and roles of middle leaders and front-line faculty.

4. Create a Cadre of Leadership to Sustain Organizational Learning.

As Fullan (2005) asserted, the key to sustaining a culture for learning and change is the creation and nurturance of a critical mass of leaders at all levels who embrace the need for doing business differently. Several steps have been undertaken in the organization and merit continued support. Several other actions might also augment and sustain the capacity of middle and ultimately future top leaders, especially when one recognizes that many of the middle leaders have come into these positions with academic training and preparation in disciplines other than educational leadership and administration.

Support leadership development programs. Programs such as the State Extension Leadership Development Program, the National Extension Leadership Development Program, and the Community Development Academy were important to providing training to middle leaders and potential leaders in many organizational activities. They

were cited as effective for organizational learning because they helped participants look at assumptions and underlying paradigms, learn collaboratively, and gain skills necessary to carry out the roles of middle leaders in fostering learning. The findings behoove the organization to support these programs and tap the people who have participated in them to lead and participate more fully in organizational learning activities at all levels.

Support the collaborative learning of the RDs and PDs. As noted the ability for RDs and PDs to model collaborative learning and to function in supporting organizational learning is closely tied to their functioning as learning communities themselves. This requires continued support and nurturing from top leaders and the commitment from the RDs and PDs themselves. With continuation of their formal and informal learning together, RDs and PDs will be the critical mass of leaders that can sustain the organization as it maneuvers through additional changes. They will create a culture for shared learning and team work that they also support and foster. As result, coordination and collaboration will be more likely to replace discussion of duplication, silos and turf, and lack of coordination.

The process for creating a learning community among the PDs had begun and was easier by virtue of location on one campus. The process for RDs functioning as learning community had only begun in earnest as this study was near completion and faces the additional challenge of geographic dispersion of the RDs. The RD collaborative learning community was being seeded and fostered by a top leader; therefore a linkage to the top leadership team was in place. Such a formal linkage however did not exist for PDs and consideration of how to create a similar regular linkage is worthwhile and could complete

a viable feedback loop. Viable communities of practice among middle leaders has the potential to create the stability that weather that can weather, adapt to, and shape change.

5. Inculcate the responsibility for organizational learning among all members.

The responsibility for organizational learning is a shared one. The way that RDs and PDs as well as top leaders act can generate this shared sense of responsibility. In part this comes from active involvement in creating, transferring and seeing the fruits of organizational learning. In addition, more purposeful support of professional learning communities among faculty within program areas and sub areas, across disciplines, within regions, and among councils can assist in this endeavor. Few examples were shared where groups were engaged in dialogue or learning around a specific piece of research or literature or practice or in evaluation of a program. Learning takes time and requires purposeful devotion to the endeavor.

6. Focus on Roles, Functions, and Foundational Themes as a Starting Point for Best Practices and Dialogue.

As knowledge activists or change agents, RDs and PDs have to bring people together to explain and explore change and to co-create the response or redesign. As faculty noted, they need to see middle leaders modeling this function and engaging with them as faculty in the creation of organizational knowledge. RDs and PDs are in the position to create the space for learning, in real time as well as real and virtual space. The underlying foundation is the same. Untapped largely is the appropriate use of the synchronous distance technologies to foster communication, reinforce relationships, and foster learning.

Focus on building a culture that nurtures people and learning. Not enough can be said about the need to build trust through attention to open and honest communication, relationship building, following through, purposefully involving people in ways that have meaning and give value to them as persons. Top and middle leaders have a responsibility to reward risk-taking and “getting outside of the box,” but top leaders also have to support middle leaders to do the same. And RDs and PDs have to take responsibility and ownership for their ability to enable and empower learning. Creating trust also entails balancing creation of flexibility and autonomy with sufficient structure and guidelines or operating principles.

The building of trust and relationships embodies the concept of Extension as an organization that cares. Willingness to tackle the tough issues together and communicate clearly provides the ability to overcome the inertia to change because such change might adversely affect some people.

Pay attention to the little things. Finally middle leaders can convey a sense of care, reinforce trust and relationships that engender organizational learning, risk-taking and genuine participation by paying attention to the “little things” such as sending the personal note, listening and responding, creating the library if that is what faculty want and need, and ultimately creating the culture for empowering others.

Finally, in an organizational learning context, these findings should inform hiring, professional development, and empowerment of middle leaders within Extension. Many of the aspects that applied to RDs and PDs have great transferability in this organization to those who are tapped to lead at various levels and in various ways, regardless of title. In particular, the opportunity exists to consider the impact these findings might have for

county program directors, both in conducting their function and in understanding better the functions of the RDs.

In summary, the intellectual or cognitive seeds appear to have been sown for purposeful engagement in organizational learning within this organization. The opportunity exists for moving more into the realm of a knowledge creating or a learning organization as the basis for maintaining a viable organization. Out of these implications and recommendations for practice in Extension, similar implications may apply to other cooperative extension organizations. Also implications may be drawn for education, especially higher education, within which the Extension organization exists. These implications will be explored next.

Recommendations for Education

As higher education institutions seek to become more engaged with the community and remain competitive in a rapidly changing world, the findings of this study suggest several implications for education. Higher education, in particular, has an imperative to engage in the practice of organizational learning (Boyce, 2003; Forest, 2002), as it participates in the inquiry and teaching of organizational learning and in promoting learning in general. In doing so, developing a cadre of leaders who can create a culture for change, foster transformative learning, and sustain organizational learning and change will be paramount. The two following recommendations focus specifically on opportunities presented for higher education itself, as many of the implications and recommendations already drawn for Extension have potential transferability to higher education and education itself.

Build the Capacity of Existing Middle Leaders.

First, training programs for those serving in middle and upper leadership roles are essential with regard to organizational learning, the roles associated with fostering learning, and skill development if necessary in such roles. Leadership programs which foster experiential and shared learning and create opportunities for professional learning communities as a means of organizational learning are also likely to be most valuable. Creation of environments and cultures that foster formal and informal micro-communities, reward risk-taking and participation in organizational learning activities, and support knowledge activists (Von Krogh et al., 2000; Eales, 2003) will also be important to creating a cadre of middle leaders who can support organizational learning and sustain organizational change (Fullan, 2005).

Incorporate the Understanding of Middle Leadership Roles into Formal Education.

Second, formal education training and degree programs for middle leaders should include an understanding of the roles of middle leaders in the variety of education contexts, e.g., K-12, community colleges, continuing education, extension and outreach, and traditional higher education. The ability to learn from each other and partner is also likely to become part of the portfolio for organizational learning, and at least for the environmental scanning, guided by middle and top leaders. A review of the curricula might well include the content taught and the processes used for such teaching and learning.

Implications for Future Research

While the findings of this study inform the general understanding of organizational learning and the roles played by middle leaders in fostering effective

organizational learning in this state cooperative extension organization, they actually create many more questions and opportunities for further research. These opportunities include further research within this organization, other similar organizations, higher education, and other organizations in general. Opportunities also exist for further exploring and explaining several aspects of organizational learning that surfaced in the findings.

Opportunities for Further Research in this Organization

Within the organization studied, several opportunities exist for further study to gain an even better understanding of organizational learning. This study looked at the general nature of learning, therefore, the further study and development of more in-depth cases of organizational learning, especially transformative learning, would increase our understanding of what contributes to such learning. Further study would also increase our understanding of others' roles in organizational learning as well as determining what factors impact RDs and PDs in taking on these roles? What best prepares them for their role in fostering learning?

Certainly additional study of the organization would provide an opportunity to compare findings with this study as well as that of Venters (2004), which looked at transfer of organizational knowledge in a subset of the organization. One might want to explore community development, the subset of the organization that was purposefully excluded in this study due to conflict of interest, to determine if such exclusion affected the outcomes. Also warranting analysis is the difference between the programmatic subculture of the organization, i.e., agriculture and natural resources, 4-H youth, human environmental sciences, business development, and community development. This

study's findings suggest there are differences related to the traditional content of each program and its developmental nature, organizational history, and learners served. However, the concept of the evolution of knowledge creating organizations (Von Krogh et al., 2000) suggests process is more important than ever. How important are the differences between programs, especially as more multi-disciplinary work is required to address complex needs? How does the organization maintain differences that advantage program delivery while reducing those that discourage innovation and collaboration?

The conduct of a longitudinal study, or at least one that revisits the nature of organizational learning in a few years could ascertain whether lasting change had actually occurred and help determine what had contributed to such change. Certainly there are indicators from the findings of this study that the collaborative work of the PDs and of RDs both separately and together is critical to sustained organizational learning and change. Like Fullan (2005) pointed out, sustainability requires creating a cadre of leaders with the vision for transformative learning and change. What difference will the work of RDs and PDs as teams make? If new top leadership radically alters the organization's direction, will the teams of RDs and PDs be able to maintain momentum? Will they maintain a team if and when there is change in the RD or PD membership? Also as Fullan points out, such change requires work at multiple levels, i.e., locally, statewide, regionally, and nationally. What role does the federal or national level play in creating transformative learning for cooperative extension? What role will multi-state and multi-organizational partnerships play?

The knowledge system is an issue of importance that top leadership and middle leaders are currently grappling with and developing in this organization. What difference

will the design of a knowledge system make? How will that affect the movement toward a hypertext organization, as defined by Nonaka and Takeuchi (1995) to be the structure for knowledge creating organizations?

Opportunities for Comparative Studies

One opportunity for further research is the undertaking of similar studies for the sake of comparing findings with extension organizations located in Land Grant Universities in other states. Several comparative questions have emerged for further exploration. How do structure and politics affect the nature of organizational learning in cooperative extension organizations, and others for that matter? Would one observe a difference, and what might it be, if the extension organization were part of only one campus as it is in some states? Or, if embedded in a single college, e.g., the agricultural college, as it is in most other states? The Extension organization in this study, like a few other states, has been dispersed across several colleges for approximately 40 years and part of multiple campuses for nearly 20 years. In some other states, the Extension organization has relied more on cross-disciplinary program teams. What difference does this make with regard to organizational learning, if other aspects were the same? The administrative scope of the RD and PD positions also varies by state and has the potential to affect the context for roles played by these leaders in organizational learning.

Additionally, becoming an organization that promotes collaborative learning and transformational programming is a significant change for cooperative extension (McDowell, 2001; Powers & Petersen, 2001). The model developed by Von Krogh et al. (2000) for the knowledge creating organization as a company cycles through the three different types of knowledge creation indicated that as the company shifts its focus from

content toward process and from existing knowledge towards new knowledge, its learning moves from capturing and locating knowledge to transferring and sharing of knowledge and learning to enabling knowledge creation. There is a tension between these three in Extension manifested as the tension between content specific knowledge creation/transfer and the process of knowledge creation. This tension seems tied to the struggle between the core business of Extension being one of knowledge transfer or transformational learning. As several states purposefully undertake this change (Bethel, 2004; University of Wisconsin Extension, 2005), the opportunity exists to explore the relationship between promoting transformational programming and transformative organizational learning, the types of learning represented by the axes of learning, and the functions of leaders and middle leaders respectively, and the foundational threads that this study found to be crucial to organizational learning. Such research could be informative for higher education as well.

A second area for comparative exploration exists between cooperative extension and other higher education organizations. These include continuing education organizations and outreach/engagement/extension activities of public and private universities. Similarly, the question arises as to how organizational learning in the Extension compares with organizational learning within the wider university from a comparable level of exploration, especially in light of the call for engagement of the university with the community and those served. What are the differences and similarities and does culture and context of serving different end users explain any differences?

One specific question arises around structure. Does the hypertext organization, as described by Nonaka and Takeuchi (1995) exist in higher education, and if so, what

characterizes it? How do organization members move between the layers of normal functioning, special projects, and the knowledge base? Is this feasible for higher education and cooperative extension? What makes it work?

Third, there are potential comparisons for the findings from studying Extension and those of studying other educational and non-profit organizations. These include the K-12 educational system, the general non-profit sector, and the public arena of government. Certainly collective learning in the community would be an interesting ground for exploration as the context of community and its complexity and voluntary nature are sufficiently different.

Fourth, the findings of this study suggest that Extension has many similarities to the businesses studied by Nonaka and Takeuchi (1995, 2004) and Von Krogh et al. (2000). These similarities center around the knowledge creation process, the role of middle leaders as knowledge engineers and knowledge activists in the knowledge creation process, and the dialectic organization. But Extension differs in the complexity and politics that often surround public educational entities and the multiple funding sources and levels of ownership that uniquely comprise cooperative extension. Therefore, further research that explores the specific aspects of organizational learning in the context of these public entities, and others—such as non-profit organizations and governments—is warranted.

Research Regarding Organizational Learning in General

Several issues put forth above create further opportunity in general for study of organizational learning. First, what role does the culture of the organization play in affecting organizational learning and how it occurs?

Second, the opportunity exists with the organization studied as well as others to explore the four axes of organizational learning which each represent different dimensions of learning. Further study is needed to determine both the relationship and the degree of relationship between the various axes of learning and evolutionary learning as described by Von Krogh et al. (2000). How unique to this organization (Extension) would such correlation be? Also, what additional knowledge and insight would be gained from administration of the various quantitative tools for measuring organizational learning (Lindley & Wheeler, 2001; Moilanen, 2001; Pace, 2002; Yang, Watkins & Marsick, 2004)?

Third, what effect does change have on organizational learning? Does organizational learning respond to change or create change? Bringing this concept to a more concrete level, the organizational transition in Extension appeared to have created an impetus to learn, or if you will, an “educational moment” in organizations as a collective entity. What sort of change constitutes the threshold or properties of such a moment? Is this a dynamic that is present in other organizations or other contexts in the same organization? In many ways, Fullan (2001, 2005) has laid the groundwork for answering this question in the K-12 educational system, but great opportunity exists for exploration in the higher education arena.

Fourth, this study looked at the role of specific middle leaders in fostering organizational learning while other studies have focused a great deal on the role of top leadership. Largely left unanswered are how front-line organizational members or faculty (in education) foster learning. Also open for exploration are the interaction factors

between top leadership and middle leadership and the front-line in affecting change and organizational learning.

In summary, multiple opportunities exist for further exploration of organizational learning in this organization, comparable organizations, higher education, and other types of organizations. Such future studies could indeed further the understanding of the complexity of organizational knowledge creation and transfer of learning.

Summary of Implications and Recommendations

The implications and recommendations for this Extension organization and for cooperative extension in general entail six key areas. These involved embedding organizational learning into the vision for the organization, creating shared learning opportunities, reframing structure with a focus on learning, developing a cadre of learning leaders within the organization, inculcating responsibility for learning across the organization, and using the roles and foundational themes as a starting point for best practices and dialogue.

The implications and recommendations for higher education, in particular, address its responsibility for engaging in organizational learning as an organization engaged in the business of research and teaching of organizational learning as well as promoting learning in general. In addition, the need exists for training and support of collaborative learning among existing mid-level leaders. Also the findings of this study imply content and processes for curricula that contribute to the formal education and preparation of educational leaders.

The implications and recommendations for future research include further study of the same organization to look more deeply within specific cases, conduct quantitative

measures for organizational learning to explore relationships between contributing factors, and view organizational learning over time. Second, further comparative study with other extension organizations, other higher education entities, and nonprofit organizations would provide a much richer picture of organizational learning when coupled with the studies that have been conducted in the K-12 arena and business world. These two areas of study would provide a greater understanding of the role of change and culture in organizational learning. Finally, there is a need to further understand the interactions between top leadership, middle leadership and front-line organization members in the various types of organizations.

Summary

The purpose of this study was to explore the nature of organizational learning and the role of RDs and PDs as mid-level leaders in fostering organizational learning within the cooperative extension service of a Midwestern land grant university. The nature of organizational learning and role of leadership, especially top leadership, has been studied primarily in the business world, while limited study has been conducted regarding middle leaders' roles in fostering organizational learning. Therefore, the present study focused on organizational learning and the roles of middle leaders in fostering or inhibiting such learning within the context of the cooperative extension organization and its culture.

Chapter One provided an overview of the situation and context as well as rationale for the importance of the study. In Chapter Two, a comprehensive review and synthesis of the relevant literature on organizational learning, the learning organization, and the role of middle leaders in fostering organizational learning was conducted. Chapter Three included a description of the research design; the procedures used to

collect and analyze the data; and the steps taken to assure the credibility, consistency, and trustworthiness of the study, and the study's limitations. In Chapter Four, the findings from the study were presented in terms of the nature of learning occurring in the organization, how RDs and PDs were fostering and inhibiting organizational learning, the similarities and differences in their roles, underlying foundational themes in their roles, and barriers to organizational learning—all from the perspective of the various groups of participants representing different levels and interests in the organization. This presentation of findings included rich descriptions that informed the understanding of the critical role that these leaders play in fostering organizational learning. Chapter Five has provided a summary of the study, discussion of the findings in light of the literature, conclusions, and implications for cooperative extension and higher education organizations and their leaders as they seek to foster organizational learning. Finally, the recommendations for future research have been presented in light of the findings and conclusions from this study.

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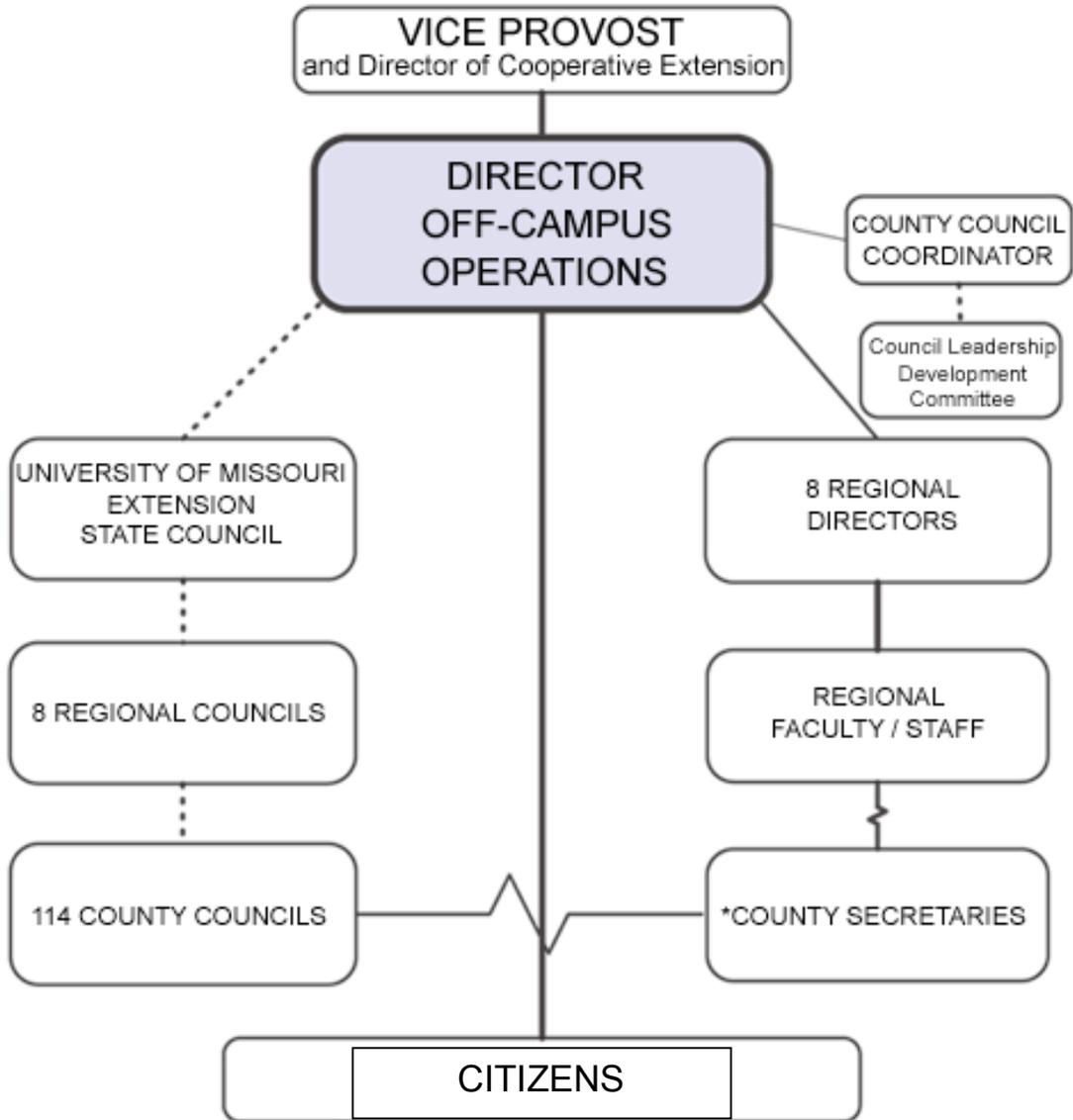
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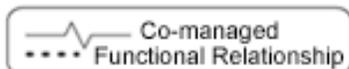
APPENDIX A

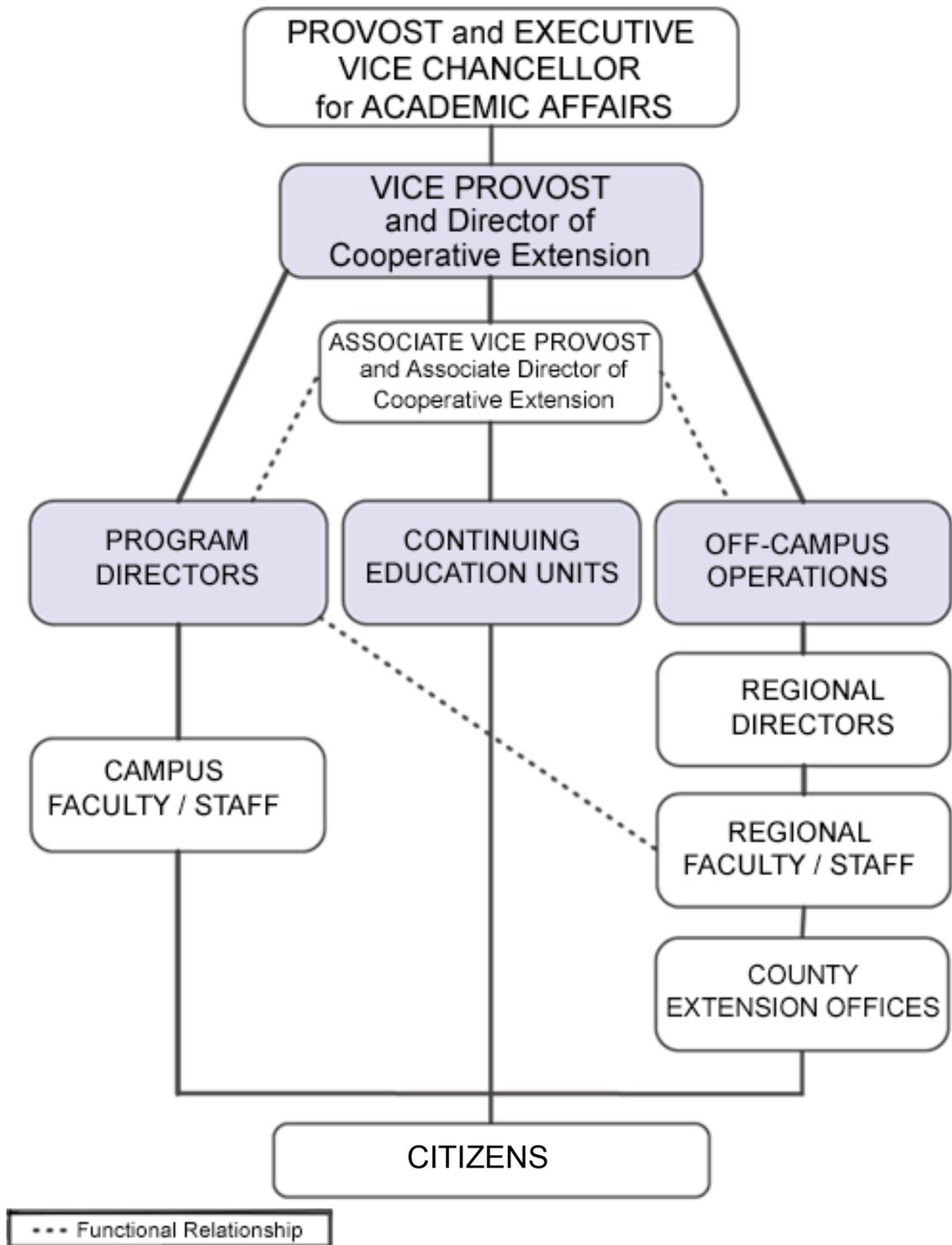
Additional Organizational Charts Following Consolidation

OFF-CAMPUS OPERATIONS



*County secretaries are supervised by County Program Directors working with local County Councils.





APPENDIX B

Letter of Invitation to Participate in the Study

491 E. Hackberry Blvd.
Columbia, MO 65202

Date

Name
Address

Dear Name:

I would like to invite you to participate in a study of the role of regional directors and program leaders in fostering organizational learning in University of Missouri Extension. I am conducting this study as my doctoral dissertation research in Educational Leadership and Policy Analysis at the University of Missouri-Columbia. The purpose of the study is to explore the nature of organizational learning (the creation and sharing of knowledge) occurring in the context of our cooperative extension organization and to contribute to the larger body of knowledge regarding how mid-level leaders and managers contribute to organizational learning. This study will NOT be used as an evaluation of individuals or their performance in the organization. This study has been sanctioned by Dr. Tom Henderson, Interim Vice-Provost for Extension (His letter of support is attached).

I am asking for the opportunity to spend up to 90 minutes interviewing you in the next month on the topic, to be scheduled at your convenience. If you agree, I will proceed to schedule an interview and send a copy of the formal consent letter which lays out the details of participation and your consent. I am happy to answer any questions you have.

Sincerely,

Mary Simon Leuci

APPENDIX C

Letter of Support from Interim Extension Director



VICE PROVOST'S OFFICE

108 Whitten Hall
Columbia, MO 65211
PHONE (573) 882-7477
FAX (573) 882-1955

DATE: July 1, 2004

TO: Extension Administrators, Faculty, and Council Members

FROM: Thomas A. Henderson 
Interim Vice Provost and Director of Extension

RE: Invitation to Participate in Doctorial Dissertation Research

The purpose of this letter is to share my support for Mary Leuci's doctoral dissertation research which is focused on organizational learning in extension. I have read her proposal and a draft of Chapter 1 and believe her work to be valuable in our better understanding of how Extension regional directors and program directors can foster organizational learning.

I believe her findings will be valuable to understanding the contributions of middle managers to our work in Missouri. In addition, I believe her findings could well be of value to our colleagues within the national Extension delivery system.

With my more than thirty years of Extension experience, I believe her list of candidates for focus and/or individual interviews are appropriate. I encourage you to participate in her study.

TH:jw

APPENDIX D

Confirmation Letter and Consent Form for Participants

491 E. Hackberry Blvd.
Columbia, MO 65202

Date

Name
Address

Dear Name:

Thank you for considering participating in my study of the role of regional directors and program leaders in fostering organizational learning in University of Missouri Extension. This study is being conducted as my doctoral dissertation research in Educational Leadership and Policy Analysis at the University of Missouri-Columbia. The findings from my research will be reported in my dissertation and potentially disseminated to a wider audience through professional and scholarly conferences and publications. This study will explore the nature organizational learning occurring in the context of cooperative extension and contribute the larger body of knowledge regarding how mid-level leaders and managers contribute to organizational learning. This study will NOT be used as an evaluation of individuals or their performance in the organization. This study has been sanctioned by Dr. Tom Henderson, Interim Vice-Provost for Extension. I am also interviewing top leaders, regional directors, program directors, regional specialists, and the state extension council to obtain a broader perspective from within the organization.

The anticipated benefits from this study include advancing the understanding of organizational learning in the context of higher education and cooperative extension. Results are anticipated to be beneficial for designing professional development for leaders and fostering an environment conducive to organizational learning in organizations such as extension. Advancing the understanding of the middle manager/leader role (that played by regional directors and program directors/leaders for extension) in organizational learning in the broader context will be beneficial to the fields of organizational studies and learning as little research has been conducted which has focused on middle managers/leaders.

The risk associated with participation in this study is minimal as this study is in no way an evaluation of the participants or University of Missouri Extension. Therefore it poses little risk to you, me, or the organization. Nonetheless, the study has been designed to minimize your risk and protect your confidentiality. In addition, any focus groups will consist of peers versus those to whom you might report. My co-facilitator for any focus groups will be peer from outside extension who has been trained in facilitation and conduct of research that maintains confidentiality.

Before you make a final decision about participation, I need to explain how your interview will be used in the study and how your rights as a participant will be protected.

Participation in this study is completely voluntary. You may withdraw from participation at any time you wish, including in the middle of the interview or after it is completed. If you decide at a later time that you do not want me to use your interview or parts of your interview in our study, I will respect that decision. Please do not hesitate to contact me with any concerns or questions about your participation. You may reach me via e-mail at leucim@missouri.edu or telephone at any of the following numbers: 573-882-2937 (office), 573-815-9333 (home), and 573-489-2937 (cell). You may also reach my doctoral dissertation advisor Dr. Joe Donaldson at 573-884-9330. In addition, if you have questions, you may contact the Human Subjects Research Office at the University of Missouri-Columbia at 573-882-9585.

Your identity will be protected in reporting of my findings. I will use a code or pseudonym rather than your real name in all reporting of findings. I will maintain copies of all pertinent information related to the study, included but not limited to, video and audio tapes, instruments, copies of written informed consent agreements, and any other supportive documents for a period of three (3) years from the date of completion of the research.

If at this point you are willing to participate in the study, please complete the consent form on the next page. Keep this part of this letter for future reference. Thank you for your time and consideration.

Sincerely,

Mary Simon Leuci

Consent Form for the Role of Middle Managers in Fostering Organizational Learning in a State Cooperative Extension Service.

I, _____, agree to participate in the study exploring the nature of organizational learning and the role of regional directors and program leaders in fostering organizational learning in University of Missouri Extension being conducted by Mary Simon Leuci. I understand that:

- This interview is for use in research which will be published.
- My participation is completely voluntary, and I may withdraw at any point in the study.
- My identity will be protected in reporting of the findings.
- All pertinent information related to the study, included but not limited to, video and audio tapes, instruments, copies of written informed consent agreements, and any other supportive documents will be maintained by the researcher for a period of three (3) years from the date of completion of the research.

Signed: _____ Date: _____

I, _____, agree for my interview to be audio-taped for the purpose of transcription.

Signed: _____ Date: _____

APPENDIX E

Start Questions for Interviews

Question 1

Give a general definition of organizational learning. What does that mean to you?

Question 2

How important would you say it is in Extension that we have a process where we create and share knowledge about how we do things as an organization?

Question 3

Can you give me an example or two where you see that we've had some organizational learning in Extension here in Missouri?

Question 4

How would you describe the nature of organizational learning occurring in Extension? I mean, what characterizes it in Extension? Are there certain things that are key to how we as an organization learn?

Question 5

Can you give me specific examples where you see **Regional Directors** foster organizational learning? What have you observed them doing to bring about organizational learning in Extension?

Question 6

I'm interested in specific examples again, of what you've seen **Program Directors** do to foster organizational learning?

Question 7

What do you think the role of regional directors and program leaders [program directors] ought to be in fostering organizational learning in the organization?

Question 8

Do you see regional directors and program leaders [program directors] creating what I would call professional learning community?

Question 9

What do you see as having been effective in fostering organizational learning in extension?

Question 10

Are there things that you think have been less effective that we've tried as program leaders [program directors] and regional directors?

Question 11

What barriers do you think program leaders [program directors] and regional directors, and it could be different barriers for the two groups or it could be the same—what kind of barriers do you think that the program leaders [program directors] and regional directors face in being able to foster organizational learning?

Question 12

Any last comments you wish to make?

APPENDIX F

**Regional Director
Position Description/Performance Expectations**

**Program Director
Position Description/Performance Expectations**

Regional Director Position Description/Performance Expectations

The Regional Director, in collaboration with the Director of Extension, Director of Off-Campus Operations, and Program Directors, provides leadership for the Region. This individual provides primary leadership for needs assessment, program implementation and coordination of resources for the Region.

The Regional Director is responsible for administration of extension faculty and staff in a designated geographic region and collaboratively supports Extension Program Directors in the development and delivery of educational programs within the region. Frequent travel is required.

MAJOR DUTIES:

Programming

1. Communicate county/regional needs to the Program Director during the statewide program planning process. Coordinate local or regional needs assessments, when appropriate.
2. Provide leadership to regional faculty. Ensure regional faculty implement and deliver priority programs appropriate to their expertise.
3. Ensure that all program materials are developed in accordance to the Civil Rights Acts, Title IX, Rehabilitation Act, Americans with Disabilities Act and local, regional and state affirmative action plans.
4. Support the Program Directors to establish program priorities.
5. Support the Program Directors in the introduction of new programs to address emerging state and national issues.
6. Coordinate faculty to participate in cross-regional collaboration and program delivery.
7. Collaborate with Principal Investigators and Program Directors regarding regional faculty participation on grant-funded projects.
8. Seek funding for local programs.
9. Ensure regional faculty participate in appropriate professional development opportunities.
10. Ensure regional faculty utilize appropriate program evaluation methods/tools.
11. Disseminate program outcomes and impact on a local and regional level.

Performance Expectations:

- *All counties will complete county needs assessment meetings by September 30, 2005.*
- *Regional Council needs assessment will be completed by scheduled date.*
- *All county program plans will be complete and filed by June 30, 2006*

- *Program will be implemented and outcomes documented based on the named programs and program logic models. Regional specialists report 50% of their time on named programs.*
- *All Regional specialists will complete PRLLS for their program. PRLLS will be written and document appropriate level of outcome – learner, action, impact - based on maturity of program.*
- *AAR will document program learner, action and impact outcomes reaching a diverse audience.*
- *Each county annual report will be completed by January 15, 2006 and report learner, action and impact outcomes.*

Personnel

1. Collaborate with Director of Extension, Director of Off-Campus Operations and Program Directors to develop the statewide staffing plan. This would include providing recommendation on office location program responsibility area, and County Program Director assignments.
2. Customize position descriptions in accordance with the regional program needs.
3. Collaborate with Program Director and Director of Off-Campus Operations, with the input from the Regional Extension Council, regarding the priority of vacant positions within the region.
4. Lead the regional faculty hiring process.
5. Coordinate new staff orientation within the region.
6. Coordinate the development of regional faculty performance expectations.
 - a. Ensure appropriate priority programs are included in specialist expectations along with County Program Director roles and responsibilities.
 - b. Approve regional faculty performance expectations.
7. Lead annual regional faculty performance evaluation with input from Program Director, Extension Councils, peers, and colleagues. Include any recommendations for merit raise, reclassification, and disciplinary action.
8. Ensure professional development participation by regional faculty.
9. Customize paraprofessional position description within the county/region. In collaboration with Program Director, Director of Off-Campus Operations and regional supervisor, conduct the Human Resources function for filling paraprofessional positions. (Advertisement, selection, evaluation, training.)
10. Coordinate and approve regional faculty to serve on special assignments.

Performance Expectations:

- *Program coverage plan will be complete evolving extension county council, regional council and regional specialists.*
- *Regional staffing decisions will be based on that plan.*
- *Approved process will be followed to hire, coach, and evaluate specialists*

- *Staff/council personnel issues will be dealt with in a timely manner.*
- *Regional Specialists failing to meet expectations (ME) will be coached to improve in those areas. Those not able or willing to improve will not have their contract renewed.*

Fiscal

1. Coordinate regional resource development campaign. This would include the generation of fees, grants, contracts and gifts.
2. Administer assigned funds for faculty, programs, and professional development for regional programs.
 - a. Approve vouchers, leave, travel authorizations, educational assistance, cost-share, buy-outs, etc.
 - b. Recommend merit and salary compression increases for regional faculty.
 - c. Allocate and/or identify professional development funding for regional faculty.
 - d. Collaborate with the Telecommunications Community Resource Center coordinator, if applicable, regarding annual budgetary issues.
 - e. Ensure University of Missouri Extension fiscal policies are followed.
3. Collaborate with Director of Extension, Director of Off-Campus Operations and Program Directors on extension-wide resource and staffing plans, including allocation across programs.
4. Collaborate with Director of Extension, Director of Off-Campus Operations and Program Directors to align resources with priority programs and regional staffing plan, including the hiring of faculty.
5. Ensure County Program Directors serve as a representative of University of Missouri Extension with Extension councils, county commissions and other agencies to plan, secure and manage funds.
6. Serve as a resource for Extension councils and County Program Directors in securing funding from county commissions and others sources.
7. Assure that County Program Directors support Extension councils in fulfilling their responsibilities to maintain appropriate financial records, arrange for annual audits and submit appropriate financial reports.

Performance Expectations:

- *All county offices have funding that are in “Minimum/Safe”*
- *Counties that do not be these guidelines have a 3 year plan in place to reach guidelines.*
- *Counties failing to complete plan will have staff numbers reduced to match resources.*

Relationships

1. Provide leadership for building relationships with local and regional stakeholders, organizations and constituents. Serve as the liaison for select statewide entities, as assigned.
2. Establish and maintain formal partnerships and collaborations to enable external funding opportunities on a local and regional level.
3. Implement and support a regional marketing plan for University of Missouri Extension.

Extension Councils

1. County Councils
 - a. Select, orient, train and support County Program Directors in order to assist County Extension Councils to
 - i. Understand their statutory obligations.
 - ii. Foster development as an advocate for University of Missouri Extension.
 - iii. Understand and Follow the Sunshine Law.
 - iv. Understand and follow AA/EEO policies in recruiting and hiring processes.
 - b. Engage County Extension Councils input into University of Missouri Extension employee performance evaluation process.
 - c. Facilitate mediation of conflict between County Extension Council, County Council Coordinator for Membership & Marketing, and University of Missouri Extension employees.
 - d. Assure appropriate fiscal and risk management by County Extension Councils.
 - e. Support local Extension Council in resource development and collaboration.
2. Regional Council
 - a. Responsible for leadership around regular communication, resource development, creating agenda with Council input, and Council Leadership Development Team. Facilitate discussions regarding staffing and program priorities.
 - b. Coordinate communication with Program Directors and the County Council Coordinator for Membership & Marketing regarding Regional Council program related needs and concerns. Communicate with Program Directors constraints and opportunities for programs and staffing within counties.
 - c. Encourage Regional Council participation with the State Extension Council.
 - d. Help County Program Directors understand their role with the Regional Council.
3. State Extension Council
 - a. Coordinate communications to the County and Regional Extension Councils.

- b. Inform county and regional councils regarding the process of selecting representatives to the State Extension Council. Communicate the roles and responsibilities of State Extension Council membership.
- c. Foster positive relationships among County, Regional, State Extension Council and the County Council Coordinator for Membership & Marketing.

Performance Expectations:

- *All counties councils will complete 5 training modules each year.*
- *Regional Council will meet quarterly to provide input into staffing plan.*
- *Regional Council will elect executive committee and state council member as defined in their bylaws.*
- *All county program plans will be complete and filed by June 30, 2006*

PROFESSIONAL DEVELOPMENT:

Participate in professional improvement opportunities appropriate to the role of regional director and Extension profession.

ACCOUNTABILITY:

The regional director is administratively accountable to the Extension Director of Off-Campus Operations.

POSITIONS ADMINISTRATIVELY ACCOUNTABLE TO REGIONAL DIRECTOR:

1. Regional off-campus faculty
2. Regional paraprofessional, clerical, and other support staff through their immediate supervisor.

QUALIFICATIONS:

Minimum of master's degree required.

Minimum of five (5) years of land-grant extension or equivalent experience in community based adult education.

Knowledge of information technologies and distance learning methodologies

Managerial and supervisory experiences, and demonstrated leadership abilities.

Note. Official document used for recruitment from organization's website.

Program Director
Position Description/Performance Expectations

DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT

TITLE: Program Director

The Program Director for xxxxx , in consultation with the Director of Extension, provides leadership for xxxxxxx Program. This individual provides primary leadership for needs assessment, program development and coordination of resources in the xxxxxxx program.

The Program Director is responsible for effective collaboration and communication with University of Missouri extension faculty, staff and administrators and with colleagues in cooperating colleges and campuses within the University of Missouri and Lincoln University.

MAJOR DUTIES:

Programming

12. Develop statewide program plan in response to county/regional needs as well as emerging state and national issues. Coordinate statewide needs assessments, when appropriate.
13. Provide leadership to campus-based faculty. Ensure campus-based faculty implement and deliver priority programs appropriate for their expertise.
14. Oversee curriculum development or the acquisition of research-based curriculum to address the program needs of the state.
15. Ensure that all program materials are developed in accordance to the Civil Rights Acts, Title IX, Rehabilitation Act, Americans with Disabilities Act and local, regional and state affirmative action plans.
16. Coordinate with Regional Directors to establish program priorities.
17. Communicate the need for cross-regional collaboration and program delivery.
18. Seek funding for statewide programs.
19. Collaborate with Principal Investigators and Regional Directors regarding regional faculty participation on grant-funded projects.
20. Ensure the identification and/or development of appropriate professional development opportunities for campus and regional faculty.
21. Ensure the identification and/or development of appropriate program evaluation methods/tools for campus and regional faculty. Conduct appropriate training of the use of each method/tool.
22. Collect, analyze and disseminate program outcomes and impact on a local, regional, state and national level.

Personnel

1. Collaborate with the Director of Extension and Regional Directors to create a statewide staffing plan that identifies the number and type of positions by region.
2. Create the program position description in accordance with the statewide staffing and affirmative action plans.
3. Collaborate with the Director of Extension and Regional Directors to determine statewide position priorities.
4. Participate in the hiring of regional specialists.
5. Identify and implement campus-wide staffing plan based on statewide programming needs.
 - a. Hire campus-based faculty in cooperation with appropriate departments and campuses.
 - b. Coordinate performance evaluation of campus-based faculty. Request input from regional faculty and Regional Directors.
6. Participate in new staff orientation.
7. Determine performance expectations.
 - a. Determine quantity, quality, impact, outcomes, audience and reporting for regional and campus-based faculty.
 - b. Ensure appropriate priority programs are included in campus-based specialist expectations along with other roles and responsibilities.
 - c. Approve campus-based faculty performance expectations.
8. Provide input to Regional Director for regional faculty members regarding the following: annual performance evaluation; program quantity, quality, outcomes, impact, and reporting; and merit increases, reclassification, and disciplinary action.
9. Ensure professional development opportunities are provided.
10. Develop paraprofessional position descriptions. Coordinate paraprofessional “human resource” functions with MU Extension Human Resources Director/office. (i.e, selection, orientation, supervision, training, performance evaluation.)
11. Recommend regional faculty to serve on special assignments to Regional Director.

Fiscal

1. Coordinate a statewide/Extension-wide resource development campaign. This would include the generation of fees, grants, contracts, and gifts.
2. Administer assigned funds for faculty, programs, professional development for extension-wide programs.
 - a. Identify appropriate state specialists for specific programs/grants.
 - b. Recommend merit and salary compression increases for campus faculty.
 - c. Allocate program development funds related to professional development.
 - d. Ensure University of Missouri Extension fiscal policies are followed.

3. Collaborate with the Director of Extension and the Regional Directors on extension-wide resource/staffing plans, including allocation across programs.
4. Collaborate with the Director of Extension and Regional Directors to align resources with priority programming and statewide staffing plan, including the hiring of regional and campus-based faculty.

Relationships

4. Provide leadership for building relationships with state, multi-state, national, and international stakeholders, organizations and constituents.
5. Establish and maintain formal partnerships and collaborations to enable external funding opportunities on a state, multi-state, national and international level.
6. Implement and support a statewide marketing plan for University of Missouri Extension for assigned program areas.

Extension Councils

4. County Councils
 - a. Promote an understanding of program area, priority programs, expected outcomes and impacts to the County Extension Council. Communicate the roles and responsibilities of the regional specialist.
 - b. Respond to requests by Regional Directors and County Program Directors in order to assist County Extension Councils to
 - i. Understand their statutory obligations in regards to programs.
 - ii. Foster development as an advocate for University of Missouri Extension.
 - iii. Understand and Follow the Sunshine Law.
 - iv. Understand and follow AA/EEO policies in recruiting and hiring processes.
 - c. Distribute information regarding statewide resources; local, regional, and statewide programs and engage campus-based faculty, when appropriate.
5. Regional Council
 - a. Promote an understanding of program area, priority programs, expected outcomes and impacts to the Regional Council. Communicate the needs of a region and the staffing required to deliver programming within a region.
 - b. Provide statistical data to communicate the regional needs and potential benefits of specific programs.
 - c. Communicate the above information to the Regional Director and County Program Directors.
6. State Extension Council

- a. Advocate the need for programs regarding emerging state and national issues.
- b. Communicate statewide program vision and impact to State Extension Council.
- c. Inform State Extension Council regarding the political implications of programs.

PROFESSIONAL DEVELOPMENT:

Participate in professional improvement opportunities appropriate to the role of Program Director and the Extension profession.

ACCOUNTABILITY:

The Program Director is administratively accountable to the Vice Provost/Director of Extension.

Positions Administratively Accountable to Program Director:

3. Campus Extension faculty
4. Paraprofessional, clerical, and other support staff through their immediate supervisor.

QUALIFICATIONS:

Minimum of master's degree required.

Minimum of five (5) years of land-grant extension or equivalent experience in community based adult education.

*Knowledge of information technologies and distance learning methodologies
Managerial and supervisory experiences, and demonstrated leadership abilities.*

Note. From working group in Spring and Summer 2004.

VITA

Mary Simon Leuci was born in Sedalia, Missouri, November 27, 1955, and graduated from Sacred Heart School in 1974. She received her Bachelor of Science in Agriculture in 1977, Master of Arts in Adult Education Administration in 1986, and Doctor of Education in Educational Leadership and Policy Analysis (to be conferred in December 2005) from the University of Missouri-Columbia.

Her professional career has included five years of management in production horticulture, two years work for the United States Department of Agriculture, and nearly 20 years working with University of Missouri Extension in community development. In her role as a program coordinator and state specialist, she was a key team member in the development of several innovative programs, which served communities and addressed a variety of issues statewide. She also co-founded the University of Missouri Community Development Academy in 1996. She has contributed leadership to several international community development programs for the University of Missouri Extension. She is an Extension Assistant Professor in the Rural Sociology Department, and for the past five-and-a-half years, she has served as the Community Development Program Director for University of Missouri Extension. She was appointed an Assistant Dean in the College of Agriculture Food and Natural Resources in 2004. Mary lives with her husband Victor Leuci and daughter Lena in Columbia, Missouri.