

DISSERTATION

FOLLOWERSHIP PREFERENCES FOR GENDER-BASED
LEADERSHIP BEHAVIORAL CHARACTERISTICS
IN THE VIRTUAL ENVIRONMENT

Submitted by

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In partial fulfillment of the requirements

for the Degree of Doctor of Philosophy

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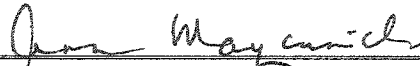
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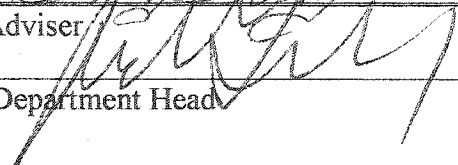
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ABSTRACT OF DISSERTATION

FOLLOWERSHIP PREFERENCES FOR GENDER-BASED LEADERSHIP BEHAVIORAL CHARACTERISTICS IN THE VIRTUAL ENVIRONMENT

The purpose of this study was to examine followership preferences for gender-based leadership behavioral characteristics in the virtual environment. A thorough literature review encompassing leadership, followership, and the virtual environment, found no clear answer to either of the research questions. As a result of the literature review, two null hypotheses were tested:

1. In the virtual environment, there is no relationship between any of the five followership types by gender and preference for gender-based leadership behavioral characteristics.
2. There will be no difference in followers' preferred gender-based leadership behavioral characteristics, as identified as predominantly male or female, when considered by followership type and gender.

Through an on-line survey of professionals employed by Cooperative Extension in the western United States, original data was gathered on follower characteristics and preferences for leadership behavioral characteristics. Contrary to the followership distribution suggested by Kelley (1993), all but one of the Extension employees who chose to respond to the on-line survey fell in only one of the five followership types. This study found no significant relationship between any of the demographic characteristics:

gender, work site, generation, location of clientele, or years of virtual work and a preference for male or female behavioral characteristics in the virtual environment. Finally, the results of this study provide additional evidence on the controversial issue of whether male and female leaders demonstrate significantly different leadership behaviors based solely on their gender. Respondents in this study failed to identify leadership behaviors as two dimensional, thus providing evidence that leadership behaviors are not gender-related. Rather the results of this study suggest that leadership as a characteristic has one major dimension not identified by gender. This study would support the hypothesis that there is no difference in the leadership behavioral characteristics of males and females, at least as perceived by followers in the virtual environment.

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CHAPTER 1: INTRODUCTION

Rapid change defines the nature of work and the workplace in the 21st century. Three dynamics integral to this change are the increasing impact of technology on the work context, the escalating number of females in the workplace (as leaders as well as subordinates), and the increasing emphasis on followers as the mechanism through which work is accomplished. How these three dynamics relate - the interaction of the virtual work environment with the increase in the number of females in the work force and the blending of leadership and followership levels - is the focus of this research.

Telework, the broad term for doing one's job away from the office via telecommunications equipment, became practical with the invention of the personal computer and portable modems in the early 1970s (U.S. Department of Transportation, 1993). Not until the last decade, however, has there been an explosion in the number of teleworkers, from less than a million in the early 70s to more than 16.5 million as reported in the Telework America Survey (Nilles, 2000).

According to PRIMEDIA Business Magazines and Media (2002), teleworkers generally have excellent morale, higher productivity rates, greater company loyalty, and better attitudes about pay, hours, and work in general. Callentine (1995) and Pitt-Catsoupes and Marchetta (1991) also found higher productivity rates and higher morale among teleworkers. Couple those findings with the fact that the cost of traditional office space has skyrocketed, while the cost of portable telecommunications equipment has

fallen dramatically, and cost savings provides another major reason for the increase in virtual work (Nilles, 1994).

At the same time, the number of women in the workforce, as leaders and followers, has increased exponentially. These workers bring with them a gender-specific behavioral orientation to work and their role in that work. The characteristics of female leaders have been an increasing subject of research since the mid-80s. There has been much debate as to the existence of gender-specific leader behaviors. Some researchers have found significant differences between male and female managers' behavior (Helgesen, 1990; Rosener, 1990; Eagly & Johnson, 1990); others have not (Eagly, Karau, & Makhijani, 1995). There is, however, a belief that this new generation of female managers brings to their organizations "a style often described as more consensus-building, more open and inclusive, more likely to encourage participation by others, and even more caring than that of many males" (Nelton, 1991, p. 16). Women leaders are described as very comfortable with having to persuade people, to encourage, and to motivate. Female leaders are attributed with the ability to build networks, to listen, to resolve conflict, and to get people to work together. Though men as well as women may exhibit these skills, according to some management consultants (Nelton, 1991), "research and experience suggest that women are more likely to have them" (p.16). A question arises, is there a manifestation of gender preferences for leadership by followers in the virtual environment?

The third dynamic impacting the changing work environment is the emphasis on teamwork as the most effective method by which most work may be accomplished. Within this team context, Chaleff (1995) and Kelley (1992) have explored the concept of

followership as a key component in team and leader success. The importance of leader-follower relationships has its basis in social exchange theory, which proposes that individuals (both leaders and followers) will remain committed to a relationship to the extent that the benefits of that relationship outweigh the costs of being in the relationship (Cleveland, Stockdale, & Murphy, 2000). While the team environment and leadership within face-to-face teams has been the subject of extensive research, the leader-follower relationship in virtual teams has been less studied. Specifically, there has been some research on gender preferences and attributes of subordinates (followers) toward leaders (Bartol & Butterfield, 1976; Jago & Vroom, 1982), but the virtual environment again provides a new context to be explored.

Gender issues in the leader/follower relationship in the virtual environment raise an interesting question. Does what we believe about gender influence relationships between leaders and followers in the virtual environment? Do gender preferences of followers for gender-based/grounded leadership behavioral characteristics emerge in the virtual environment? In summary, the issue that emerges at this time is whether or not leadership paradigms as related to male/female characteristics hold in the virtual environment.

Background Discussion to the Issues

The Virtual Workplace

The impact of technology on the workplace is undeniable. The development of faster communication systems, more powerful processors, and new families of software; the emphasis on the global marketplace and multinational teams to advance international business objectives; and the increased corporate focus on efforts to increase productivity

and worker satisfaction (Barner, 2000) have prompted organizations to enter the era of virtual connection. Traditional work may now be accomplished in very non-traditional ways. According to Townsend, DeMarie, and Hendrickson (1996), with virtual connection employees can interact meaningfully over any distance, with much the same functionality as a face-to-face meeting. Employees are able to complete and submit work at a distance, work interactively in real-time with individuals from around the globe, and be 'at work' while physically located "at home" or some other remote location. The telecommuter may live many miles from his or her employer, yet be no less connected than the individual who lives "around the corner" from their place of work.

Virtual work fits the emerging shift of preferred residence away from population centers to the "burbs" and beyond. Families that prefer the rural lifestyle can take advantage of virtual working environments to avoid long commutes and focus work time more effectively. Virtual work also allows employees to balance work and personal time. Since electronic communication lines are available 24 hours per day, work can be sandwiched around family and home responsibilities, with neither suffering at the expense of the other. Virtual work can result in less need for physical workspace and the four walls that surround it, thus allowing business to invest less in "bricks and mortar." This need for less work space suggests less need for employee lunch rooms, work-out areas, plush bathrooms, and conference rooms outfitted with the latest, ergonomically correct tables and chairs. Employees are able to work in their home office, or hotel room, with no need for the surroundings of the traditional work place. Thus, virtual work has the potential to be both cost effective for organizations and efficient for employees.

Virtual Work

Virtual work is done across space, time, and organizational boundaries (Lipnack & Stamps, 1997) through some combination of electronic communication systems, such as telephone, fax machine, computer e-mail, or computer-based video conferencing. Virtual work allows organizations to build effective teams from personnel that might not otherwise be available to work together, removes time and travel cost restrictions, and allows organizations to implement a team response in situations which might be too expensive for face-to-face team interaction. Virtual work also enhances the availability of resources from outside the organization, such as consultants and skilled individuals who might otherwise be too expensive to bring to the work site or whose personal lives prevent them from being geographically present (Townsend et al., 1996; Essex & Kusy, 1999).

However, virtual teams bring a new set of problems to the workplace. Senge, as quoted by Abernathy (1999), suggests that no one really understands very well the implications of virtual work and distributed teams on the capacity to learn. Bigelow (2000) points out virtual organizations face challenges in both communications and infrastructure, which can lead to their failure. She concludes that virtual teams must invest in technology and training and provide team members with the proper tools and support to ensure their success.

Townsend et al. (1996) concur that training is essential for the success of virtual teams. Effective communication in most virtual mediums eliminates many of the traditional cues of social interaction such as facial expressions, body language, and hand gestures. Team members must be taught to use considerably more linguistic precision in

their communications. In addition, some software applications allow for anonymous communication. Teams must be taught how to manage the anonymous environment and how to determine when to use it. All team members must learn to use a common body of products in the same way. If dynamic membership is expected, virtual team members must also be taught to quickly become a part of the team and embrace the team's common values and social protocols.

LeMay (2000) found that virtual teams need more time to develop close interpersonal relationships among members because communication often takes longer if it relies on typing versus talking. Also, less social communication takes place in virtual teams. However, LeMay (2000) found that over time virtual teams do adapt to meet the relationship needs of their members. Relational links are important to virtual teams because they have been associated with positive team outcomes, including enhanced creativity and motivation, increased morale, and better decisions (Warkertin, Sayeed, & Hightower, 1999). Warkertin et al. found that although face-to-face groups reported higher levels of cohesion and were more satisfied with both the decision-making process and the team's outcome, virtual groups over time do develop intra-group relationships and adapt to the communication medium, as well as communicate as effectively as face-to-face groups. Hoefling (2001) refers to communication in virtual teams as the elixir of virtual trust. She points out that communication about project and task is necessary to maintain trust, and social communication strengthens trust. Nemiro (2000) concludes that trust may be the most crucial dimension necessary for virtual team effectiveness. Lipnack and Stamps (1997) agree that trust is a necessary component for virtual team success. They go on to identify three essential elements of trust: *trusting people*, members need to

trust one another's competence and accountability for the work assigned; *trusting purposes*, members generate trust by their commitment to a unifying purpose; and *trusting links*, members need to trust that the information they receive is the best available information and that the channel through which information is sent will be effective.

Another essential ingredient of virtual team success is purpose. Lipnack and Stamps (1997) found that purpose encompassed a wide range of terms, including vision, mission, goals, tasks, and results. In addition, role clarity is an important factor in virtual team success. Role clarification and expectations need to be more explicit in virtual than face-to-face teams.

These specific components of virtual team success provide a beginning look into the complex nature of leadership in virtual teams.

Leadership in Virtual Teams

Grenier and Metes (1995) summarize the characteristics of virtual leadership:

1. Virtual projects do not succeed without good leadership.
2. Leadership of virtual teams is more demanding than leadership for "four-walls" teams.
3. Usually leaders have native talent, but in virtual settings, talent must be augmented with developed skills.
4. Virtual leadership is a performance, not a role. People in all role capacities are called upon at some point to lead.
5. In virtual operations, value cannot be related without leadership.

6. Good leadership brings out the best practices of followership.
7. Good leadership is contagious.

They indicate that good virtual leaders develop the skills to get work done through relationships, which they refer to as the “soul” of virtual leadership. These skills include being able to influence, cajole, ignore, praise and correct, obey and refuse as the situation demands. Grenier and Metes also suggest that a commitment to leadership development is essential for organizations that intend to use the virtual environment to accomplish work. They note that leadership training is effective in building the quality and effectiveness of both leaders and followers, and conclude that a strong leadership development program is essential for any organization transitioning to virtual operations.

Topics that they suggest should be included in virtual leadership development are:

1. Multiple leadership in virtual operations
2. Leadership as managing a network of dependencies
3. Leadership through decision and influence
4. The leadership role in designing virtual operations
5. Creating and sustaining virtual relationships
6. Supporting virtual teams
7. Stress management through communication
8. Introducing virtual technologies in non-threatening ways
9. Leading by example: teaming, communications, and continuous learning in virtual environments
10. Keeping virtual teams focused

Leadership qualities which seem particularly effective in virtual situations include taking responsibility for the effectiveness, productivity, development, and welfare of the people in the team; supporting and articulating the organization's vision and objectives and facilitating the building of the teaming culture; and remaining continuously involved in team activities including tactfully intervening when the team gets into trouble.

Effective leaders balance opposing views yet maintain the creative tension of differing perspectives. They facilitate negotiations among team members and support continuous learning for the team and individual members. They are decisive in rewarding team performance, rectifying performance problems, and providing feedback to team members and other stakeholders. Finally they demonstrate a high commitment to organizational and personal goals, attention to detail, and sensitivity to developing and maintaining positive interpersonal relationships. Grenier and Metes (1995) conclude with "above all else, leaders excel in communication skills and help the team become skilled in using the information and communication systems that support virtual work" (p. 84).

Essex and Kusy (1999) also identify some crucial virtual team leader skills:

1. Proficiency with technical tools;
2. Ability to facilitate meetings;
3. Ability to coach team members, both on line and face-to-face, including giving work directions, giving performance feedback, and motivating and encouraging;
4. Ability to align team initiatives with organizational goals, including providing a linkage from the team to the organization, serving as an advocate for the

team to the organization, and interpreting organizational initiatives to the team;

5. Ability to communicate in a virtual environment, including communicating persuasively and explaining change effectively;
6. Ability to access, analyze, and manage data; and
7. Ability to communicate across cultures.

They go on to suggest that the key to leading virtual teams is to over-communicate.

Hoefling (2001) agrees,

Leadership is increasingly a function of connecting networks of interdependent systems, people, visions, focused attention, purpose. It includes leading through influence, introduction, and facilitation of sustainable virtual relationships—across silos and tribes, across boundaries and walls, beyond traditional organizational beginnings and endings (p. 178).

Olson (1999) in his literature review on virtual teams also found that the basis of contemporary leadership is communication skills.

The results of two recent studies confirm the importance of communication and relationships to the success of virtual teams. Lurey and Raisinghani (2001) found that team processes and team members' relations had the strongest relationship to team performance and member satisfaction in their study of factors which contribute to or inhibit the success of a virtual team. Kayworth and Leidner (2002) in their study of leadership effectiveness in global virtual teams found that highly effective team leaders act in a mentoring role and exhibit a high degree of understanding (empathy) toward other team members.

Women As Leaders

Paralleling the explosion in virtual work is the increasing number of women in the workforce, including at the highest levels of leadership. Women, who began their careers 25-30 years ago at the height of the 70s' women's lib era, are now earning CEO status in record numbers (Paris, 2002; Van Engen, Van Der Leeden, & Willemsen, 2001). As organizations adjust to this changing demographic, researchers in the field of leadership have focused on the perceived differences between male and female leaders (Helgesen, 1990; Rosener, 1990; Eagly & Johnson, 1990). While far from conclusive, research results seem to suggest that females tend to be slightly more interpersonal and task oriented and slightly more comfortable with democratic styles of leadership, while males prefer a more directive style (Helgesen, 1990; Rosener, 1990; Eagly & Johnson, 1990; Cleveland, Stockdale, & Murphy, 2000).

Advocates of female leadership qualities claim that skills developed by women in early childhood, or through socialization, such as the endurance to stress, the ability to multi-task, intuition, communication and problem-solving skills, and relationship building, are all advantages in managing an organization (Billing & Alvesson, 2000; Yukl, 2002). Yukl also suggests different role expectations influence leadership behavior, as well as the evaluation and perception of that behavior. According to Yukl, these role expectations are the result of differential stereotypes about men and women, which form the basis for an individual's life experience.

Current research on transactional and transformational leadership offers an additional perspective on female versus male leadership characteristics. Transactional leadership is based on exchanges between the leader and followers. The leader provides

attention, guidance, and rewards to followers, which results in compliance, but not necessarily enthusiasm or commitment to the goals of the group (Howell & Costley, 2001; Yukl, 2002). The transactional leader may also use directive behavior including clarifying expectations and procedures needed to complete the task, as well as contingent punishment for those followers who do not perform well (Howell & Costley).

Transformational leaders, on the other hand, motivate followers by stressing the importance of the task. Using charismatic behaviors, these leaders inspire followers to look beyond their own interests to the interests of the group (Yukl, 2002). Bass (1985) found that transformational leaders increased the motivation and performance of their followers more than transactional leaders.

Several studies have compared the transactional and transformational styles of male and female leaders. These studies found that followers are more likely to perceive female leaders as transformational (Bass, Avolio, & Atwater; 1996; Bycio, Hackett & Allen, 1995; Druskat, 1994). In addition, Lipman-Bluman, Handley-Isaksen, & Leavitt (1983) found that leaders are more likely to be perceived as transformational if they build effective relationships with followers to achieve their goals. Further examination of this finding among male and female leaders and non-leaders (Offerman & Beil, 1992) found that female leaders used more intrinsic and collaborative styles, consistent with transformational leadership. Komives (1991) also found that followers of both genders associated relationship building styles with transformational leadership, as opposed to transactional leadership. Thus, it would appear that female leadership characteristics may be uniquely suited to transformational leadership roles.

The influence of organizational context on a leaders' behavior has been a somewhat neglected area of leadership research. While theorists have suggested that organizational context does influence the style of leaders (Blake & Mouton, 1964a; Fiedler, 1967; Hersey & Blanchard, 1982; Vroom & Yetton, 1973), little research has actually attempted to look at the effect of context on gender differences. The changes in the work environment (international focus, partnership-based, and team-focused) has led some authors to suggest that a shift to leadership qualities typically thought of as female (open communication, listening, development of others, teamworking, and a flexible managerial style) are ideally suited to this more inclusive and progressive environment (Paris, 2002). However, little research has been done on gender differences in leadership in a virtual environment.

Some research has suggested that women in virtual work situations have higher levels of organizational commitment and job satisfaction and are more productive than male virtual workers (Scandura & Lankau, 1997; Hill, Miller, Weiner, & Colihan, 1998). However, Raghurama, Garud, Wiesenfeld, & Gupta (2001) found that men have a stronger relationship between organizational connectedness and virtual work. While these findings may be applicable to the issue of followership, there is little to be derived from these studies on leadership differences by gender. There appears to be minimal empirical evidence which defines the gender behavioral characteristics of leaders preferred by followers in the virtual environment.

Followership

Howell and Costley (2001) define followership as:

... an interactive role individuals play that complements the leadership role and is equivalent to it in importance for achieving group and organizational

performance. The followership role includes the degree of enthusiasm, cooperation, effort, active participation, task competence, and critical thinking an individual exhibits in support of group or organizational objectives without the need for 'star billing' (p. 304).

The idea of followership is not new. Aristotle, in *Politics* said, "Who would learn to lead must, as men say, first of all learn to obey" (as quoted in Litzinger & Schaefer, 1982). Hegel (1971) in his *Phenomenology of Mind*, first published in 1910, suggests that leadership is only possible on the condition that followership has been learned.

Barnard's (1938) Acceptance Theory of Authority also asserts that leadership is impossible without followers' acceptance --"The decision as to whether an order has authority or not lies with the persons to whom it is addressed, and does not reside in "persons of authority" or those who issue these orders" (p. 82). Barnard goes on to suggest that it is the followers who, through granting or withholding obedience, constrain leaders' actions to those which they believe are consistent with the goals of the organization.

Kelley (1992), Bennis (2000), Lee (1993), and Chaleff (1995) all support the idea that the characteristics of outstanding followers are also the characteristics of outstanding leaders. According to Lee,

Effective followers are partners in creating the vision in the first place. They take responsibility for getting their jobs done. They take the initiative to fix problems or improve processes. They question leaders when they think they're wrong. In other words, they act a lot like leaders themselves (p.114-5).

Kouzes and Posner (1987) concur that "the best leaders are the best followers" (p. 114). Bennis (1989) suggests that willingness to tell the truth is the single-most important characteristic of an effective follower. He concludes that that willingness to speak out demonstrates the kind of initiative that is essential for leadership.

Likewise, there is some agreement on critical follower skills. Alcorn (1992) found that cooperation, flexibility, integrity, initiative, and problem solving are associated with high levels of organizational performance and participation, as well as job satisfaction in followers. He went on to suggest that these skills are more likely to be found in organizations where empowerment is the goal. Buhler (1993) also found that critical thinking and taking an active role are essential attributes of a 'good' follower. She suggests that an important skill for all organizational members is the ability to move back and forth between the roles of leader and follower.

The importance of followership increases as organizations stress teamwork as central to their mission (Buhler, 1993). Howell and Costley (2001) concur that "The popularity of work teams, productivity improvement groups, employee ownership programs, and gainsharing all point to a larger role for followers in organizations of the future" (p. 307). According to Hollander (1995), the leader-follower relationship is pivotal in the success of a team. Kelley (1993) suggests that effective followers see themselves as equals of the leaders they follow. Effective followers understand that in this era of distributed leadership, everyone takes a turn leading and following. If they expect the current leader to be supportive when their roles are reversed, followers must be fully contributing at all times. However, Kelley (1993) and Chaleff (1995) both agree that the courageous follower is also more likely to challenge the leadership of an organization when they disagree on important issues. Chaleff explains that effective followers understand that both leaders and followers serve a common purpose. If the leader does something that harms the common purpose, then the follower must speak up

forcefully. But, effective followers challenge themselves and their behavior as readily as they challenge a leader.

Kelley (1992) provides an interesting model of followership styles. Using a two by two matrix with axes representing critical thinking and active involvement, Kelley suggests that followers fall into one of five categories: Alienated, Exemplary, Conformist, Passive and Pragmatist followers (Figure 1).

Alienated followers score high on independent, critical thinking, but low on active engagement. They are keenly dissatisfied with their work and direct their hostility toward the boss and the organization. Conformist followers score high on active engagement and low on independent, critical thinking. Conformists are eager to take orders and yield to the leader's authority. According to Kelley (1993), conformists add very little value to the organization. The third category of follower is the pragmatist. This follower scores in the middle on both active engagement and independent, critical thinking. They avoid taking a strong position and keep conflict to a minimum. Kelley asserts that while these followers may not get promoted, they are also not the first to be fired. Passive followers score low on both independent, critical thinking and active involvement. These individuals do not like being in the follower role, and, consequently, shut down, putting a little thought and effort into the role as possible. According to Kelley, the exemplary follower who scores high in active involvement and independent, critical thinking is "their own person." These followers think for themselves, are creative and innovative, and are willing to stand up to leaders.

Kelley does not explore whether gender plays a role in where an individual falls in his matrix, nor does he suggest what specific gender-related leadership behaviors each

type of follower prefers. Subsequent research may discover gender-specific relationships, which if known, would be helpful for both leaders and followers. Ancillary to this question is whether or not the virtual environment affects follower preferences for leadership behaviors.

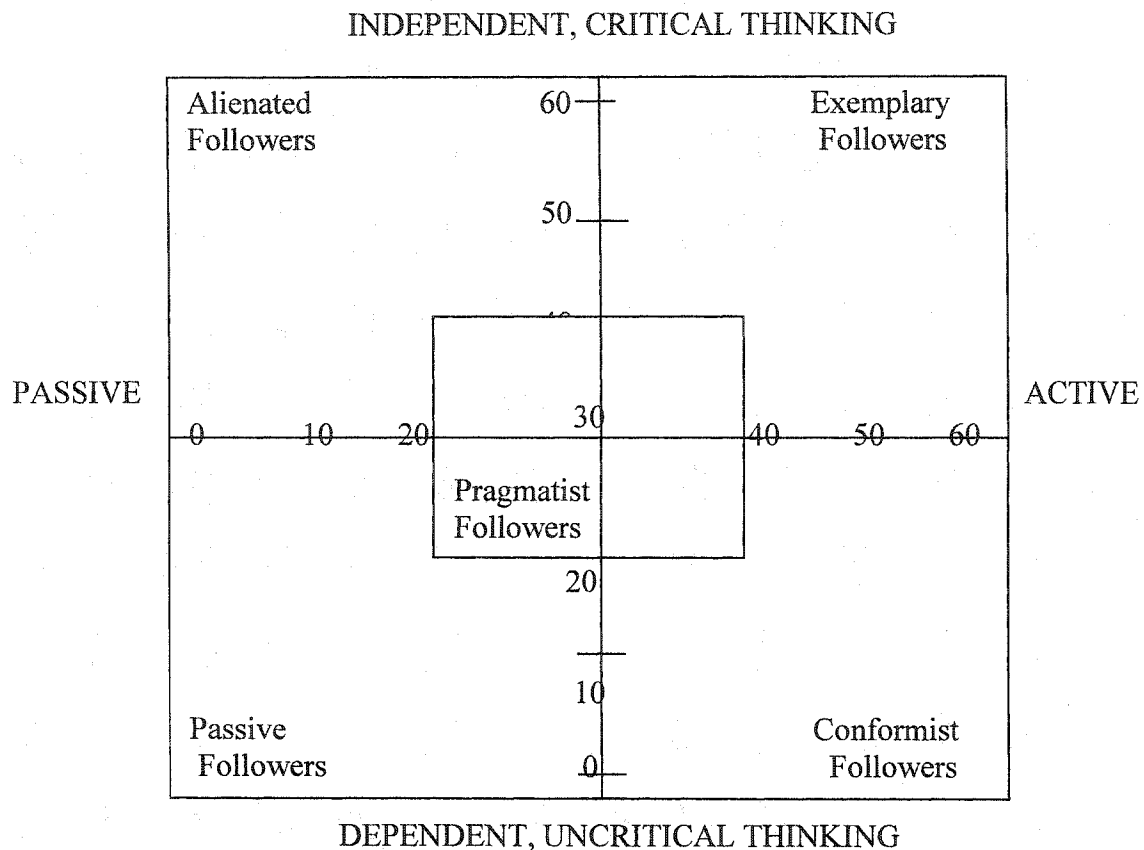


Figure 1. Followership styles.

Statement of the Problem

The problem for this research is to determine from a followership perspective whether male or female leadership traits are preferred in leading virtual teams in a non-formal educational organization. In addition to the primary focus of this research, outcomes may include suggesting what role gender plays in follower preferences for leadership behavior in the virtual environment.

Research Questions

This study will seek answers to the following questions:

1. In the virtual environment, is there a relationship between any of the five followership types by gender and preference for gender-based leadership behavioral characteristics?
2. In the virtual environment, are preferred gender-based leadership behavioral characteristics by followership type by gender identified as predominantly male or female?

Overview of the Research Process

The model for this study will include discreet, sequential, and significant activities that will likely parallel the chapters of the final document. The research continuum model will consist of the following phases:

Phase One

In this phase, the statement of the problem and identification of research questions is enumerated. The purpose of this phase is to identify the issues associated with the content area and pose associated questions. Considerations include why the problem is important, to whom, and why. In this phase, limitations that constrain the research effort and definitions are established.

Phase 2

This phase includes an exploration of the research questions through a complete literature review, the goal being to determine whether the questions can be sufficiently answered through this review to generate a proposition that can be tested with original data. This phase of the research will examine whether the existing literature supports a

proposition that a virtual environment differs from a face-to-face team environment in follower preferences for leadership behaviors. And, if the literature review does support such a proposition, the review will further explore whether those preferences are for specific leadership behaviors which can be identified as characteristic of either male or female leadership. Following this extensive review of the literature, an analysis will determine to what extent the research questions have been answered and whether or not a resulting proposition has merit for testing as a hypothesis. Potential outcomes from the literature research include:

1. Research questions are completely answered. Answers to the research questions take the form of propositions which then lead to:
 - a. One or more hypothesis which reflects the propositions' variables and their relationships,
 - b. The hypothesis is tested with original data.
2. Research questions are only partially answered.
 - a. After identification of what is missing from the literature review that would allow the research questions to be answered, research using original data will be identified and sought to confirm the portion of the questions that have been answered and attempt to complete the answer where none exists. In this case, since a proposition which could be put forward for testing as a hypothesis does not have defensible merit, information will be sought to determine a research design which will gather additional data to confirm and add to what has been learned from the literature review.
3. Research questions are not answered in part or whole.

- a. The researcher, using the literature as a basis, will suggest what data will be needed and begin to accumulate information to determine a research design to answer the research questions.

Phase 3

In this phase the researcher will evolve the strategy for gathering the appropriate original data to address the outcomes from Phase 2. The research design will identify the data gathering method(s) and instrument. Discussion in this section will include the design's reliability, validity, and feasibility, as well as the decision rules for addressing unknown and unanticipated problems.

Phase 4

Phase 4 will include:

1. Analysis of the data derived through the research design, and
2. Interpretation of the findings.

Phase 5

The meaning and implications of the research outcomes and data will be explored in this phase. The following questions will guide the exploration:

1. What do the outcomes suggest regarding the research questions and/or hypotheses?
2. What new or confirmed issues have surfaced based on the study?
3. What does the study add to the existing body of knowledge or theories?
4. What are the implications for leadership, followership, and gender studies in virtual groups?
5. What can be generalized from the study and to whom or what environment?
6. What do the outcomes suggest as possible areas of future study?

Definitions of Terms

The following definitions of terms will aid in the understanding of this study.

Virtual Environment--is an environment in which work is done across time, space, and organizational boundaries through some type of electronic communication system such as a computer e-mail or telephone (Lipnack & Stamps, 1995).

Followership--is the interactive role that individuals assume that contributes to the success of group performance and supports, or fails to support, leadership behaviors (Howell & Costly, 2001).

Limitations and Delimitations

This study is based on an auditory-based, virtual, single case environment of a non-formal educational organization. The specific organization was selected because of the access provided through the researcher's connection to this organization and because of the increasing importance of virtual teams to the work of the organization. Because of the case nature and unique characteristics of the organization, implications from this

study have limited generalizability to other environments. In addition, as Patton (1990) suggests, researchers by their presence can alter the environment within which research takes place. In this study, this effect may be neutralized, in part, due to the familiarity of the subjects with the researcher. There is also the possibility that individuals will self-report differently than an observer might document, or will, in retrospect, identify or categorize behaviors differently than they would in real-time. Construction of an objective questionnaire will address this limitation as well as that of researcher bias and influence.

Assumptions

An assumption made in this study is that subjects will be open and honest in their description of leadership behaviors in the virtual environment, as well as their preferences for such behaviors. In an attempt to support this assumption, the study will be designed to ensure confidentiality and anonymity. It is further assumed that the virtual environment explored in this study has not been significantly altered due to the researcher's inquiry, that the subjects' preferences are characterized by some degree of consistency, and that the subjects have the ability to accurately report their preferences.

CHAPTER TWO: LITERATURE REVIEW

Introduction

The explosion of the virtual environment as an increasingly important medium through which substantial work gets done raises questions as to whether leadership and followership occur as they do in a face-to-face environment. The increasing numbers of women in the workforce, both at followership and leadership levels cause one to ponder the implication of this new mix of workers. The purpose of this literature review is to examine what the current literature explains about gender in both leadership and followership in the virtual environment.

This literature review will consist of six basic sections. The first four will focus on the four elements comprised in the research questions: leadership, gender differences in leadership, followership, and the virtual environment. Based on these four sections, implications will be drawn as to what the literature contributes to each of the research questions; whether the research questions are fully, partially, or completely answered. This discussion will conclude with whether emergent propositions can be identified from the literature review. If propositions do emerge, an argument will be made as to whether the propositions have merit for testing as hypotheses and, if so, the hypotheses for testing will be stated, along with a short discussion on whether such hypotheses will be stated as null, directional, or non-directional.

Leadership Theory

The study of leadership within teams has a history rich in theory and research. Leadership is defined as a process to influence or change the behavior of others in order to accomplish organizational, individual, or personal goals (Robbins, 1997). The study of leadership historically began with the notion of traits specific to successful leaders (Wiggam, 1931). Researchers interested in trait theory attempted to isolate human characteristics that would help explain leadership ability. Unfortunately, as Bass (1981) pointed out in his review of the literature on trait theory, the research was inconclusive and leadership appeared to be more than the mere possession of some combination of traits. However, more recent research has identified some traits that seem to be related to, or have a high probability of association with, leadership (Kirkpatrick and Locke, 1991). These traits include drive and ambition, the desire to lead and influence others, honesty and integrity, self-confidence, intelligence, and deep technical knowledge related to their field.

Trait theory failed to totally explain leadership ability/success, which led to the development of the behavioral approach. The behavioral approach attempted to explain leadership ability/success in terms of leadership behavior. While trait theory had its underpinnings in a genetic understanding of leadership, behavioral theory was based on a learned understanding of leadership (Robbins, 1997). If the behavioral theory was proven, then individuals could be taught to be leaders.

Much of the behavioral theory research was conducted at the Ohio State University and centered around two major dimensions of leadership behaviors known as initiating structure and consideration. Halpin (1966), in *Theory and Research in*

Administration, defined initiating structure as the leader's behavior in delineating the relationship between him or her self and members of the work group, and in endeavoring to establish well-defined patterns of organization, channels of communication, and methods of procedure. Consideration referred to behavior indicative of friendship, mutual trust, respect, and warmth in the relationship between the leader and the members of his group. Early leadership instruments measured both leader and group behavior. Specific items on the Leader Behavior Description Questionnaire (LBDQ) relating to the two dimensions included:

Initiating Structure -

1. Makes attitudes clear to staff.
2. Tries out new ideas with staff.
3. Rules with an iron hand.*
4. Criticizes poor work.
5. Speaks in a manner not to be questioned.
6. Assigns staff members to particular tasks.
7. Works without a plan.*
8. Maintains definite standards of performance.
9. Emphasizes the meeting of deadlines.
10. Encourages the use of uniform procedures.
11. Makes sure that his part in the organization is understood by all members.
12. Asks that staff members follow standard rules and regulations.
13. Lets staff members know what is expected of them.
14. Sees to it that staff members are working up to capacity.

15. Sees to it that the work of staff members is coordinated.

Consideration -

1. Does personal favors for staff members.
2. Does little things to make it pleasant to be a member of the staff.
3. Is easy to understand.
4. Finds time to listen to staff members.
5. Keeps to himself.*
6. Looks out for the personal welfare of individual staff members.
7. Refuses to explain actions.*
8. Acts without consulting staff.*
9. Is slow to accept new ideas.*
10. Treats all staff members as equals.
11. Is willing to make changes.
12. Is friendly and approachable.
13. Makes staff members feel at ease when talking with them.
14. Puts suggestions made by the staff into operation.
15. Gets staff approval on important matters before going ahead.

(*) Scored negatively

The LBDQ questionnaire was designed to measure the leader's behavior in a specific situation, but not to measure capacity for leadership. Halpin concluded that the effective leader delineated clearly the relationship with the members of the group, and established well-defined patterns of organization, channels of communications, and a way of getting the job done. At the same time, the leader's behavior reflected friendship,

mutual trust, respect, and warmth in the relationships with members of the group (Halpin, 1966). It remains to be seen whether any of these patterns and relationships hold in the virtual environment.

The hypothesis of this research was that leadership was a learned behavior that could be taught. The researchers found that effective leaders, determined by higher subordinate performance and satisfaction, scored high in both initiating structure and consideration. High scores in both dimensions were associated with harmony and procedural clarity within the group. Researchers also found that different settings fostered different styles (Stogdill & Coons, 1951; Hoy & Miskel, 1978; Fisher, 1988).

Other researchers at this same time used different terms to describe leadership behaviors. Researchers in Michigan used production-orientation, emphasizing the technical and task elements of the job; and employee-orientation, focusing on interpersonal relationships, to describe leadership behavior dimensions. They found that groups with production-orientated leaders had lower group productivity and satisfaction, while leaders with employee-orientation were associated with greater group productivity and job satisfaction (Kahn and Katz, 1960).

At about the same time, Blake and Mouton (1964b) introduced their managerial grid which articulated concern for people and concern for task as behaviors which explained leadership. Research using the grid, while conceptualizing leadership styles, did not support the notion that any one specific set of behaviors was best in all contexts (Nystrom, 1978; Larson, Hunt & Osborn, 1976).

In *Educational Administration and Organizational Behavior* (1985), Hanson concluded that while factors of initiating structure and consideration had been important

and durable in the leadership research literature, they had also been the focus of scholarly criticism. The two dimensions did not acknowledge changes or sequences in leadership patterns, the characteristics of the group in which the patterns were studied, or the relationship of the group to its surrounding environment. Contingency theory, a focus of leadership research that did take these situational factors in organizations into consideration began to emerge in the late 1960s and early 1970s.

Fiedler's least preferred co-worker theory, relating leader personality characteristics to situational factors, and Hersey and Blanchard's (1982) model of situational leadership, relating task action and relationship behavior to maturity levels of followers, are examples of contingency theories; as is Vroom and Yetton's (1973) leader-participation model relating leadership behavior with participation in decision-making. House's (1974) path-goal theory and Yukl's (2002) multiple linkage theory are also examples of contingency theories of leadership.

In the first comprehensive contingency leadership model, Fiedler (1967) suggested that effective group performance was dependent on a leader's ability to match their individual style of interaction with subordinates with the degree to which the group situation enables the leader to exert influence. Fiedler measured whether an individual was task-oriented or relationship-oriented using a least-preferred co-worker questionnaire (LPC). He then identified three situational variables: (1) leader-member relations - the degree of confidence, trust, and respect the subordinates have in their leader; (2) task structure - the degree of structure/lack of structure subordinates' job assignments contain; and (3) positional power - the degree of influence the leader has over discipline, hiring,

firing, salary increases and promotions (power variables). These three variables could be manipulated to 'match' the behavioral orientation of the leader.

Fiedler believed that the LPC leadership style (determined by the psychological test) was innate and could not be changed, much like the early trait theorists. But he went further by predicting leadership success as a function of both leadership traits and the situational context. Since a leader's style could not be changed, it was critical to either manipulate the situational factors to increase leader effectiveness, or place the leader in a situation that matched his or her style (Fiedler, 1967). Major studies to examine Fiedler's model have, in general supported the model (Schriesheim, Tepper, & Tetrault, 1994).

Hersey and Blanchard's (1982) work was also based on the Ohio State studies. They concluded that the leadership process was a function of the leader, the follower, and other situational variables. Their work on the situational approach to leadership was on observed behavior, not any inborn or acquired ability or potential for leadership; they emphasized the behavior of leaders and their group members (followers) and various situations.

Hersey and Blanchard (1982) concluded that most leadership activity fell into two behavioral dimensions: task action (initiating structure) and relationship behavior (consideration of group members). Task action was the extent to which a leader communicates one-way to each follower on what is to be done when, where, and how. The extent, to which a leader engages in two-way communication, by providing emotional support and facilitating behaviors, determines their relationship behavior. A leader's behavior may score anywhere on the continuum between high and low on either dimension. Any of the resultant four quadrants of behavior: telling (high task action, low

relationship behavior), selling (high task action, high relationship behavior), participating (low task action, high relationship behavior), and delegating (low task action, low relationship behavior), may be appropriate based on the readiness of the followers (Howell & Costley, 2001). Followers' readiness was determined based on their ability and willingness to assume the specific task being performed. According to Howell and Costley (2001), research evidence for Hersey and Blanchard's model is mixed and generally weak, however, managerial acceptance of the theory is widespread.

The path-goal contingency leadership model was developed by House (1974). This theory suggests that leadership behavior which increases the attractiveness of goals and followers' confidence in achieving them is both motivating and satisfying to the follower. Leaders using the path-goal model actively coach, guide, encourage, motivate and reward followers. This model also identifies four dimensions of leadership behavior: directive, supportive, participative, and achievement-oriented, each with specific follower outcomes. Non-authoritarian and non-punitive directive behavior or guidance, where the leader organizes and schedules the work and tells the followers in a non-threatening manner what, when and how the work will be done reduces role ambiguity for the follower and increases the followers' beliefs that effort will result in good performance which will be rewarded. Supportive leadership behavior, which creates a psychologically supportive and friendly work environment will result in increased follower self-confidence and the personal value of job-related effort. Participative behaviors include asking followers for suggestions and opinions and using their input in decision-making. The theory predicts that this type of leadership behavior will result in reduced ambiguity, clarified expectations, consistency of follower and organizational goals, and increased

involvement with and commitment to organizational goals. Setting challenging goals, encouraging followers to perform at high levels, and demonstrating confidence in their ability to do so are all achievement-oriented leader behaviors. These behaviors, the theory predicts, will result in increased follower confidence, as well as increased personal value of goal-directed effort (House & Mitchell, 1974).

The objective for the leader using the path-goal theory is to consider existing follower characteristics and task and organizational factors and choose the appropriate behavior, given the specific situation. Follower characteristics include their experience, locus of control, and perceived ability. According to Howell and Costley (2001), the path-goal theory has been widely tested with varying results. However, the overall suggestion that the effects of leadership behavior are contingent on situational factors is generally supported. House has recently introduced a new version of his path-goal theory which focuses on ten types of leader behavior and their effects on follower empowerment, satisfaction, ability, performance, and work unit performance (House, 1996).

The leader participation model originally developed by Vroom and Yetton (1973) and further developed by Vroom and Jago (1988) emphasizes follower and situational characteristics of each decision problem and provides guidance on how to use participative techniques to involve followers in decision making. The impact of participation on decision quality is affected by such factors as shared goals among followers, the knowledge and information possessed by followers, group size, disagreement among followers and the nature of the problem. The model provided a sequential set of rules that should be followed in determining the form and amount of

participation in decision making. The model decision tree included seven contingencies and five leadership styles: Autocratic I, Autocratic II, Consultative I, Consultative II, and Group II (Johnson & Johnson, 1991). In their more recent work, Vroom and Jago have increased the number of contingencies from seven to twelve (Robbins, 1997).

In *Organization Theory and Design* (1995), Daft explained contingency as one thing depending on another; one characteristic depends on another characteristic. What works in one setting may not work in another. He acknowledged that contingency theory concludes that there are no universal principles that apply to all organizations; that there is no “one best way.” Contingency theory means “it depends.”

More recently, theories based on “behavioral complexity” have begun to emerge. Yukl’s (2002) complex Multiple Linkage Model of Leadership originally proposed four broad categories of leadership behavior (building relationships, influencing people, making decisions, and giving-seeking information), eleven mid-range behaviors, and multiple specific behaviors. Six intervening variables: task commitment, ability and role clarity, organization of the work, cooperation and mutual trust, resources and support, and external coordination, when addressed effectively by the leader and the organization will lead to group effectiveness. Situational variables such as the formal organizational reward system, the type of work task performed by followers, the organization’s policies and procedures and the technology of the workplace may also effect group performance, as well as constrain the leader’s behavior and impact on the group. Yukl’s model suggests that in the short term, leaders need to set challenging goals; provide direction, recognition, and support; organize the work; reduce conflict; and encourage cooperation.

Longer term, however, the leader must take strategic actions to reduce the negative and increase the positive effects of the situational factors.

Because Yukl's model is extremely complex and relatively new, there have been very few efforts to test the model (Howell & Costley, 2001). Yukl recognizes several limitations of the model as well (Yukl, 2002) and suggests that it is a general framework for describing the leadership process rather than a formal theory with precise predictions for effective leadership.

Current popular writing on leadership by Bennis (1989), Nanus (1992), Kouzes and Posner (1987), Wheatley (1992) and others seems to focus on the process by which leaders appeal to followers' values and emotions, a central feature in theories of transformational and visionary leadership in organizations. Kouzes and Posner identify five specific actions of an effective leader: challenging the process, inspiring a shared vision, enabling others to act, modeling the way, and encouraging the heart. Bennis, in his book *On Becoming a Leader*, emphasizes the difference between leadership and management behaviors. Nanus focuses on one of the leadership dimensions Bennis describes, that of vision. Nanus emphasizes the importance of identifying, communicating, and helping others to embrace the vision as the critical element of leadership. Wheatley agrees that the overriding characteristic of effective leadership in today's complex and often chaotic organizations is clear, ever-present communication of guiding visions, strong values and organizational beliefs.

Popular approaches to leadership have their roots in the theory of transformational leadership. Originally described by Burns (1978), transformational leadership appeals to the moral values of followers in an attempt to raise their consciousness about ethical

issues and to mobilize their energy and resources to reform institutions (Yukl, 2002). This type of leadership is in contrast to transactional leadership, which motivates followers by appealing to their own self-interest. With transformational leadership, followers feel trust, admiration, loyalty and respect toward their leader and they are motivated to do more than they originally expected to do. Much of the research and theory on transformational leadership can be attributed to Bass (1985, 1996). According to Bass, a transformational leader motivates followers by making them more aware of the importance of task outcomes, inducing them to transcend their own self-interest for the sake of the organization or team, and activating their higher-order needs. Transactional leadership, in contrast, involves an exchange process between the follower and leader, which does not generate enthusiasm and commitment to task objectives. Bass saw transformational and transactional leadership as distinct, but not mutually exclusive processes. Effective leaders will use both types of leadership (Yukl, 2002).

The original theory as described by Bass (1985) included three types of transformational behavior: idealized influence - behavior that arouses strong follower emotions and identification with the leader; intellectual stimulation - behavior that increases followers' awareness of problems and encourages viewing those problems from a new perspective; and individualized consideration - behavior which provides coaching, support and encouragement to followers. A revision of the theory added a fourth behavior: inspirational motivation - modeling appropriate behaviors, communicating an appealing vision, and using symbols to focus follower effort (Bass & Avolio, 1990a).

Bass (1985) also identified specific behaviors as transactional. Contingent reward behavior includes the use of incentives and rewards to influence motivation, as well as

the clarification of the work necessary to receive those awards. Passive management by exception behavior includes corrective actions and punishments in reaction to obvious deviations from acceptable performance standards. A third transactional behavior, active management by exception, which describes looking for mistakes and enforcing rules to avoid mistakes, was added in the more recent version (Bass & Avolio, 1990b).

According to Howell and Costly (2001), transformational leaders use charismatic behaviors to inspire, often describing current conditions as intolerable, and projecting a future vision that is radically different. These leaders are strongly supportive of followers, showing individual consideration and concern. They often mentor followers to develop their leadership skills and encourage them to take on challenging and new tasks. They effectively use boundary-spanning techniques to gain the cooperation and resources needed from outsiders to complete the mission. Transformational leaders are self-confident and may not be particularly participative with followers. They project an image of certainty in the mission and strategy they espouse and use their excellent communication skills to convey these in a convincing manner to followers. They have a highly socialized need for power, desiring to move the organization toward their vision. They often are highly intelligent and creative and can cleverly relate their message to the desires and needs of their followers. Research has shown this type of leadership is extremely effective when followers are frustrated, stressed, or unhappy with their current situation. It is less clear whether this type of leadership is as effective if followers are not experiencing stress and frustration (Howell & Costley, 2001).

Women as Leaders

Introduction

The proportion of women in the workforce and as managers has increased significantly over time. Thus, understanding what, if any, difference gender makes in virtual groups and virtual group leadership would be helpful. However, the literature offers little, if any, insight into these topics. In contrast, much has been researched and written on gender in the workforce.

In 1970, only 38% of the U.S. workforce was female. Women held only 16% of the management positions at that time. By 1980, the percent of women in the workforce totaled 43%, with 26 % of the managerial positions held by women. In 1990, those percentages had increased to 45% and 39% respectively (US Department of Labor, 1983, 1990, 1998). However during the same time period, women made little progress at the highest levels of leadership. According to Korn/Ferry International (1990), the proportion of female executives increased from .5% in 1979 to 2.9% in 1990. Morrison, White, Van Velsor, and The Center for Creative Leadership (1992) found similar results for female corporate officers of Fortune 500 firms with 1.7% in 1986 and 2.6% in 1990. More recently, Catalyst (1999) found that female corporate officers of Fortune 500 firms had jumped to 8.7% in 1994, 10.0% in 1995, 10.6% in 1996, and 12% in 1999. Thus the gap which previously existed between male and female participation in the work force and in management positions has largely disappeared, but the gap between women in management in general and women in "top" management continues to be quite large.

Yukl (2002) suggests that women have failed to gain entrance to the highest levels of leadership as a result of gender-based discrimination, based on beliefs that men

were more qualified for leadership than women. He states: "These beliefs involved assumptions about the traits and skills required for effective leadership in organizations (implicit theories), assumptions about inherent differences between men and women (gender stereotypes), and assumptions about appropriate behavior for men and women (role expectations)" (p.411).

Much of the research on women and leadership centers around three questions on which this review of literature will focus. First, is there a difference in the way men and women lead? Second, if there is a difference, is one style more effective than the other? And, finally, do followers have a preference for one type of leadership over the other? These three questions also roughly follow the chronology of research on female leadership.

Women and Men as Leaders - Are There Differences?

Through the early 1970s, the research on leadership conspicuously ignored any reference to the gender of the leader. Until that time, the research dealt almost exclusively with male subjects with little concern for the generalizability of the findings of that research to females in leadership positions (Rice, Instone, & Adams, 1984). In the mid-70s and early 80s, however, research interest turned to a comparison of male and female leaders. Early research on gender differences in leadership found that men were better leaders than women (Rosen & Jerdee, 1978, Schein, 1973, 1975), and that men and women differed on leadership behaviors (Bartol & Butterfield, 1976; Magargee, 1969, Petty & Lee, 1975).

Schein (1973, 1975) and Powell and Butterfield (1979) in particular found that male and female managers agreed on a profile of the successful manager as decidedly

masculine. Schein stated “that successful middle managers are perceived to possess characteristics, attitudes, and temperaments more commonly ascribed to men in general than to women in general” (p. 99). Powell and Butterfield went on to conclude that their study did not support the hypothesis that a good manager would be seen by subordinates as androgynous, that is, possessing both masculine and feminine characteristics.

By 1989, however, Brenner, Tomkiewicz, and Schein found that attitudes toward female managers had changed. The results of their research indicated that while men continued to describe successful middle managers with temperaments, attitudes, and characteristics that were commonly attributed to males; women viewed successful middle managers as having attitudes, temperaments, and characteristics attributed to both men and women in general. They concluded: “It appears that female middle managers no longer sex-type the job of the manager...” and that “male managers have not changed their attitudes over the last 15 years” (p. 668).

A caution regarding the early research on gender and leadership was voiced by Osborn and Vicars (1976) who suggested that sex-role stereotypes are more likely to be found in artificial, laboratory situations, rather than in real life, organizational settings. Additional research by Korabik (1990) and Powell (1990) led both to the same conclusion: the effects of gender stereotyping on leadership behavior may be overstated in laboratory studies, and the experience of working for male and female leaders can reduce the effects of stereotyping over time.

Billing and Alvesson (2000) reported that most comparative research studies of male and female managers conclude that there are modest, if any differences (Butterfield & Powell, 1981; Chapman, 1975; Dobbins & Platz, 1986; Powell, 1988). In a meta-

analysis of 17 studies examining sex differences in leadership, Dobbins and Platz (1986) found male and female leaders exhibited equal amounts of initiating structure and consideration and had equally satisfied subordinates. They concluded that the gender of the leader does not have significant impact on leader behavior or subordinate satisfaction. Their findings were consistent whether the research had been conducted in the laboratory (often using undergraduate and graduate students) or in the field (organizational settings).

Chapman (1975) also found no difference between male and female leadership style. Female managers were not found to have a significantly higher *need* for fostering good interpersonal relationships, nor were they more task-oriented than males. He goes on to suggest, however, that there may be a difference in leadership *behaviors* between male and female leaders. Females placed in a leadership position exhibit behavior that is significantly more relationship-oriented; behaviors more congruent with societal expectations.

This difference in *behaviors* was also noted in the research of Baird and Bradley (1979) who found that males and females exerted leadership in distinctly different ways. Females gave more information stressing interpersonal relations, being receptive to ideas, and encouraging effort. They also showed more concern and were more attentive to others. Males exceeded females in the use of dominant communication styles, challenging others and directing the course of conversations. Baird and Bradley conclude that females' behavior more than males' seemed to support the development of employee morale.

Davidson and Cooper (1983) also found differences in male and female managers' behaviors. Female managers reported more frequent use of a sensitive and

sympathetic management style, as well as a cooperative approach compared to the male managers in their study. They concluded that women were more likely to exhibit a “relationship-oriented” leadership style. Their finding was somewhat confirmed by Ferrario (1990) in her study of women managers in the United Kingdom. Ferrario found that female managers exhibited a higher proportion of both task- and people-oriented styles of management. Male managers were more often identified as “laissez-faire” with less leader involvement in both task- and people-oriented activities.

Another important exception to studies which failed to find a difference between male and female leadership behavior was Eagly and Johnson (1990), who conducted a meta analysis on over 160 leadership studies and did find support for some gender-related differences. In their study, females tended to demonstrate more interpersonally-oriented and democratic styles, while men tended to demonstrate more autocratic and task-oriented styles. Harriman (1996) suggests that although the differences are slight, women do seem to be more democratic and participative in their approach, and that this style may help female leaders to be more effective by allowing them to win acceptance from their followers and gain self-confidence in the process.

Eagly, Makhijani, and Klonsky (1992), in a subsequent meta-analysis, found that the research suggests that people react especially negatively to females who adopt a directive and autocratic style. They opined that females less frequently adopt those styles that produce prejudiced evaluations of their behavior. Gardiner and Tiggemann (1999) confirmed this finding in their work on gender differences, job stress, and mental health when they found that females in male-dominated industries behaved in a more similar way to the men in those industries and displayed a more stereotypically masculine style

of leadership (task orientation). Females were equally interpersonally oriented compared to men in male dominated industries, but were more interpersonally oriented compared to men in female-dominated industries. The conclusion drawn by Gardiner and Tiggemann was that there is a relationship between the gender domination in the industry and the leadership style of females.

It is interesting to note that in the research on gender and leadership, the gender of the followers does not appear as a factor. There appears to be a void in the literature in examining followership gender as a variable in genders studies of leadership behaviors, characteristics or effectiveness.

Other more recent research has focused once again on the gender differences in the behavior of leaders. Rosener (1990), in her work with the International Women's Forum, found that women, more than men, were more likely to use transformational leadership - motivating others by changing their self-interest into interest in the goals of the organization. She also found women more likely to use power based on contacts, work record, and charisma, rather than position, title or the ability to reward or punish. An interesting finding that may relate to this study was that "Women who describe themselves as predominantly 'feminine' or 'gender-neutral' report a higher level of followership among their female subordinates than women who describe themselves as 'masculine'" (p. 121). Rosener described female leadership as 'interactive' because the female leaders she surveyed actively worked to make interactions positive for everyone. Key ingredients of this interactive leadership were encouraging participation, sharing power and information, enhancing the self-worth of others, and energizing others, clearly a relations-orientation to leadership, characteristic of transformational leadership.

Criticism of Rosener's work (Epstein, Olivares, Bass, Graham, & Schwartz, 1991) focused on the issue of self-reports rather than subordinate ratings. Bass and Bradford, as stated in Epstein et al., both suggest that Rosener's work only confirms what other research had shown, that mutual influence, true participation, joint decision making, shared responsibility, and exciting visions produce high performance.

However, at about the same time as Rosener published her work, Bourantas and Papalexandris (1990) found that neither leadership styles (autocratic, participative, paternalistic, or consultative), nor subordinates' satisfaction differed between male and female supervisors. They did find that, in organizations where a male culture is prevalent and power rests in the hands of males, women supervisors do conform to a more masculine model of managerial behavior.

Offermann and Biel (1992) reported on research on the achievement profiles of women versus male leaders. While they found little difference in the achievement profiles of male and female leaders, they did find that women differed from their male peers by deriving less satisfaction from a competitive orientation and less interest in competition and "beating" others. Hollander and Offermann (1990) also found that democratic and participative styles are more prevalent among women than men.

In 1994, Bass and Avolio reported that females in their study demonstrated significantly more behaviors categorized as transformational and scored higher on all the transformational leadership scales. Based on their previous finding (Bass & Avolio, 1993, 1990b) that motivation, productivity, and satisfaction of followers increase when leaders add transformational leadership behaviors to transactional styles; they concluded that women may make better managers. In contrast, Bass, Avolio, and Atwater (1996) had

inconsistent results for sex differences in transformational leadership in three different studies. While one study of female executives in Fortune 500 companies found evidence of more transformational leadership among the females than their male counterparts, two other studies did not find strong sex differences.

Powell (1997) concludes that the research evidence on whether male and female managers differ suggests: "They differ in some ways and at some times, but, for the most part, they do not differ" (p.301).

Van Engen, Van Der Leeden, and Willemson (2001) hypothesized that the organizational context influences the style of both male and female managers. However, their study of gender-typed contexts failed to substantiate that hypothesis. They found no difference in the leadership style of male and female managers, nor any differences which could be attributed to the organizational context (female-dominated or male-dominated) of the work.

Rosener (1997) points out an interesting paradox that may serve to conclude this section on whether males and females differ in their leadership:

1. When attributes or behaviors associated with women are considered negative or of little value, gender is seen as relevant.
2. When attributes or behaviors associated with women are considered positive or valuable, gender is seen as irrelevant (p. 296).

Are Female Leaders More Effective?

This 'feminine advantage' as it is referred to by Yukl (2002) posits that women are more likely than men to have the skills and values necessary for effective leadership in modern organizations. Supporters of this idea suggest that women are more interested

in consensus building, inclusiveness and interpersonal relationships, and are more willing to share power and information and nurture and develop followers. Yukl concludes, however, that the “feminine advantage” is based on “weak assumptions and exaggerated gender stereotypes” (p. 412).

Earlier researchers have suggested that women more than men managers may contribute to communication and cooperation, affiliation and attachment, and intimacy and nurture (Grant, 1988). Grant (1988) and French (1986) proposed that women have a different attitude toward power compared to men. Women see power as capacity stemming from and directed toward the entire community and are able to use power in a more constructive way, encouraging creativity, mobilizing human resources better, and changing hierarchical structures. Lipman-Blumen (1992) described a connective-leadership in which shared responsibilities and networking are critical, encouraging followers to connect to others and others’ goals.

Helgesen (1990) described “feminine principles” that she found through her interviews with successful female leaders. These included “principles of caring, making intuitive decisions, not getting hung up on hierarchy or all those dreadfully boring business-school management ideas; having a sense of work as being part of your life, not separate from it; putting your labor where your love is; being responsible to the world in how you use your profits; recognizing the bottom line should stay there-at the bottom.” She describes women leaders as different from men in that they are more caring, involved, and more effective at listening than men.

Following Helgesen’s book, management gurus and corporate icons reinforced her basic message. Edward M. Moldt, managing director of the Snider Entrepreneurial

Center at the Wharton School of the University of Pennsylvania, is quoted as saying the women's approach is one that is "right for the times." He suggests that today's companies require leaders who not only are risk takers and visionaries, but also are strong enough people that they're capable of hearing the ideas of others and really empowering them to use some of those ideas in changing businesses and in making them successful" (Nelton, 1991, p. 17). Moldt suggested that women are especially skilled at this because, unlike men who are used to giving orders and having them followed, women are comfortable with persuading, encouraging and motivating.

Judith Hoy of Learning Systems, a New York consulting firm specializing in management effectiveness, as quoted in Nelton (1991), concurs. She proposes research and experience suggest that women are more likely to possess the ability to build networks, to listen, to resolve conflict, and to get people to work together. According to Nelton (1991) a survey of executives by Russell Reynolds Associates, Inc., a New York-based executive recruiting firm, found that women more than men in both line and staff positions were more likely to be identified as leader-style executives (that is, visionary, innovative, and strategic in their thinking) rather than manager-style executives (concerned with maintaining momentum, balancing interests, stabilizing forces, and implementing tactical plans).

Despite the popular press bandwagon, few researchers have been so enthusiastic supporters of the "feminine advantage." Hollander (1992) and Powell (1993) both found no difference in the effectiveness of male and female leaders. In 1995, Eagly, Karau, and Makhijani published a meta-analysis of the research on gender and the effectiveness of leaders. Aggregating laboratory experiments and field/organizational studies, they found

no difference in the effectiveness of male and female leaders. However, they did find that males were more effective in leadership roles defined in masculine terms, and females were more effective in leadership roles that were defined in less masculine terms. Several types of organizations produced small tendencies for women to be more effective (business, education, government and social service), but none of these were as strong as the substantial advantage provided to men in military organizations. Men fared better in first-level or line positions than women. However, women fared better in second-level or middle management positions, despite the heavy concentration of men in these mid-level positions. Eagly et al. (1995) suggested that this finding was consistent with Paolillo's (1981) finding that lower-level management requires greater technical skills, while mid-management requires greater human relation skills which allow the manager to develop cooperative efforts and motivate and develop employees.

In addition, Eagly et al. (1995) found in studies where leader and follower roles were male dominated, male leaders were more effective (specifically military studies). Eagly et al. suggested:

Specifically, effectiveness comparisons favored male leaders over female leaders to the extent that (a) male (compared with female) respondents rated themselves as more competent in the role, (b) male respondents rated themselves as more interested in occupying the role, (c) respondents of both sexes judged the average man more interested in occupying the role than the average woman, and (d) respondents of both sexes judged that the role required relatively low levels of interpersonal ability and relatively high levels of task ability. Analogously, effectiveness comparisons favored female leaders over male leaders to the extent that these conditions were reversed (p. 135).

Eagly et al. concluded that gender does matter since male and female leaders are differentially effective in different environments: "It is the fit between leaders' gender and the specifics of the leadership role that influences leaders' effectiveness" (p. 139).

Gender role expectations impact leadership roles in organizations and produce significant consequences for the effectiveness of leaders.

Corporate surveys over the past decade convey an interesting message regarding leader effectiveness. Early in 1995, a study conducted by Lawrence A. Pfaff and Associates, a Michigan based human resource consulting firm, found that women had better management and leadership skills than men (*HRMagazine*, December, 1996). A second study by the same firm found that female managers were rated significantly better (by their bosses and their followers) than male managers. Skills in which females excelled included decisiveness, planning and setting standards, in addition to communication, feedback, and empowerment. Employees, bosses, women and men all rated women managers higher on 15 of 20 skill areas, including goal setting, technical expertise, and facilitating change. Another study by the Management Research Group found that bosses rated men and women equally effective on overall leadership abilities. However peers and direct reports gave a slight edge to women (*HRMagazine*, December, 1998). Contrary to previous research, the study also found that men managers were more inclined to delegate tasks to others while women more often came across as assertive and competitive in achieving goals.

The popular press is overflowing with books by authors who have an opinion about what is needed in leaders for the 21st century. Paris (2002) pointed out that a recent study by the Industrial Society's Campaign for Leadership found that women leaders were rated more highly by their colleagues than male leaders on 37 of 38 leadership qualities. She suggested:

As the working environment evolves--from a national to an international focus; from competitive to partnership-based; from hierarchical to team-focused--the

work culture becomes one where feminine qualities are given the credibility and opportunity to shine. Leadership qualities such as open communication, listening, development of others, teamworking, and a flexible managerial style all contribute to creating an inclusive and progressive environment suited to today's dynamic workplace... The shift to a more holistic leadership approach is indicative of more stereotypically feminine qualities coming into play in the workplace. It is acknowledged that such nurturing and caring qualities can boost morale and improve productivity. This provides a hard business case for what are often termed soft skills (p. 25).

Wachs (2000) agrees that females possess the qualities that businesses seek today; qualities such as a focus on achieving objectives, fostering relationships, using management and financial skills to transform companies, and creating a vision that inspires people. She suggests that women's success in leadership is the result of three, well-learned lessons: "they are extremely self-confident, they possess a keen sense of customer-demands, and they tap into their female side to lead" (p. xi).

So the question remains as to whether female or male leaders are more effective. In general research would answer, "it depends" on the situation, the environment, the gender make-up of the group, and the task at hand. It appears, however, that the popular press and current corporate surveys would conclude that women are, in general, more effective in the 21st century organizational environment. Whether any of this is generalizable to the virtual environment will be pursued later in this literature review.

Follower Preferences for Leadership Gender

Research from the 60s through the 80s is clear on follower preferences for the gender of their leaders. As stated previously, until the late 70s, leadership was, by definition, a male pursuit. Both males and females identified the responsibilities of leadership as more masculine than feminine (Schein, 1973, 1975; Powell & Butterfield, 1979). Any positive experience with a female "boss" was treated as the exception, rather

than the rule. The few studies where men accepted a female boss suggested that it was older males who had more experience working with females who were most accepting (Bowen, Worthy, & Greysen, 1965; Bartol & Butterfield, 1976; Sutton & Moore, 1985). However, these same studies did find that female executives showed greater approval of women bosses than male executives.

A Gallup Poll conducted in the early 90s found that almost half of workers preferred a boss of a specific gender. More than one-third of all workers preferred a male, while only 13 percent preferred a female. Of those workers who had a preference for the gender of their boss, 65 percent of the females preferred a male boss. Eighty-five percent of the males also preferred a male boss.

A 1993 survey by *Working Women* found that 61% of female respondents did not consider the supervisor's gender an issue (Karsten, 1994). As stated in Harriman (1996), Jensen, White, and Singh (1990) found that job satisfaction seems to be more related to the work values of the followers than to the sex of the leader or followers. They suggested that employees tend to be more satisfied when the manager's style is consistent with their own values.

Based on this literature review, it appears that there is a lack of current research on the topic of followership preferences for leadership gender. The limited research that does exist is inconclusive as to whether male or female leaders are preferred by followers.

Followership

The role followers play in work groups has been far overshadowed by the enormous amount of research done on leaders and leadership. Commenting on this lack

of attention on followers, Mary Parker Follett, in a lecture to the Department of Business Administration of the London School of Economics in 1933, suggested that the part followers contribute to the leadership situation had not gotten the attention it deserved. She went on to say that followers do not merely follow, but play a very active role in keeping the leader in control of the situation (Follett, 1949). Follett, in her own work, went on to posit that it was the dynamic between leaders and followers that was critical to team situations. Despite her admonition, little research occurred on the topic of followership until the last two decades. As late as 1982, Heller and Van Til commented that the study of the follower, in particular, had been largely ignored. Callahan, Fleenor, and Knudson (1986) agree that the study of the characteristics of subordinates was an unresearched area of leadership.

When followership finally became an area of research interest, it was through investigation of the social-exchange, or transactional, nature of leadership which focused on the “benefits” a leader gives to followers in exchange for esteem and responsiveness. Researchers sought to more fully integrate followers into an understanding of leadership as they recognized that the traditional view of the leader-follower relationship as a relatively closed system with the leader giving top-down direction was no longer appropriate (Hollander, 1992). Hanson (1987) pointed out that a supervisor’s effectiveness depends on the consent of subordinates to follow. Without followers there can be no leaders. Hollander and Offerman (1990) agreed that leadership relies on mutual responsiveness and dependency: “Effective leadership is achieved after all by a process in which there is reciprocity and the potential for two-way influence and power sharing” (p.85).

This relational view of leadership initially garnered research interest through work done on follower attributions of leaders and the link between perceptions and behavior. How followers perceive a leader has implications for the organization and the leader. Leaders identified as competent are likely to be retained and promoted. According to Yukl (2002), followers assess a leader's success based on many interrelated factors attributed to the leader by followers: (a) the extent to which there are clear, timely indicators of performance for the leader's team or organization; (b) the leader's actions, both indirect and direct; (c) external factors which impact the success or failure of the group (such as the state of the economy); (d) constraints on the leader's decisions and actions; and (e) leader intentions and credibility (whether the leader is concerned about personal benefit), as well as leader competence. Yukl concluded that when there is little information available to judge the competence of a leader, attributions are more likely to be biased.

The roles that followers play in the effectiveness of group work have been another research topic of interest. According to Yukl, followers contribute to a group's effectiveness, not only by being motivated and competent in the work of the group, but also by "maintaining cooperative working relationships, providing constructive dissent, sharing leadership functions, and supporting leadership development" (p. 430). Yukl goes on to identify guidelines for followers:

1. Find out what you are expected to do.
2. Take the initiative to deal with problems.
3. Keep the boss informed about your decision.
4. Verify the accuracy of information you give the boss.

5. Encourage the boss to provide honest feedback to you.
6. Support leader efforts to make necessary changes.
7. Show appreciation and provide recognition when appropriate.
8. Challenge flawed plans and proposals made by leaders.
9. Resist inappropriate influence attempts by the boss.
10. Provide upward coaching and counseling when appropriate (p. 431).

Other researchers have attempted to identify the characteristics of effective followers. In their seminal work with Federal employees, Gilbert and Hyde (1988) identified eight dimensions of followership: partnership with the supervisor, commitment to the job, technical competence, sense of humor, dependability, positive working relations, tendency to speak up, and proper comportment.

Lundin and Lancaster (1990) suggested that integrity - identifying values and being true to them; owning the territory - knowledge and commitment that allows a follower to see how their piece contributes to the larger effort; versatility - being able to deal with ambiguity and communicate effectively with others; and self-employment - knowing one's own skills and abilities and what they are worth, are critical. They go on to state that effective followers must:

...possess a high level of organizational understanding in order to see how their work contributes to the big picture. They must be able to make sound decisions, often through teamwork that requires a high level of communication. They must be enthusiastic about what they do to the point that roadblocks and repetition don't deter them from achieving their objectives. They need to feel a strong level of commitment, both to the organization and to their own work. And, finally, they must be highly responsible individuals who are willing to perform under stressful circumstances, motivated by the sense of a job well done (p.19).

Other authors have expressed similar views. Hollander (1992) pointed out that the qualities sought in good leaders are consistent with those of good followers: dependability, competence, and honesty. Acorn (1992), as stated previously, indicated that high levels of organizational performance and participation were associated with followers' core behaviors of cooperation, flexibility, integrity, initiative, and problem solving. Lee (1993) suggested that effective followers are partners in creating a vision. They take responsibility for their job and take initiative in fixing problems or improving processes. They also question leaders when they think they are wrong. "In other words, they act a lot like leaders themselves...To a suspicious degree, good followers exhibit exactly the sorts of characteristics that pundits talk about when describing good leaders" (p. 115). Howell and Costley (2001) concluded:

In today's organization, followership is defined as an interactive role individuals play that complements the leadership role and *is equivalent to it in importance for achieving group and organizational performance* (emphasis added) (p. 304).

In 1988, Robert Kelley introduced his theory on followership in an article in the *Harvard Business Review*. He suggested that the distinguishing characteristics of an effective follower were enthusiasm, intelligence, and self-reliance in pursuit of organizational goals. According to Kelley, effective followers manage themselves well, thus eliminating much of the need for strong supervisory control. In fact, they see themselves as equals with the leaders they follow. Effective followers are committed to the organization and its purpose, something outside themselves. Effective followers are competent. They hold higher performance standards than the work environment requires, and continuing education is second nature to them. Finally, effective followers are courageous, honest, and credible. They are independent, critical thinkers, who take

responsibility for their mistakes and sharing successes. They form their own views and ethical standards and stand up for what they believe in (Kelley, 1988).

Building on the work of Kelley, Chaleff (1995) defined “follower” as a condition that permits leadership to exist and gives it strength. Followers are interdependent with, not dependent on, leaders. They add value to the leader and themselves through their relationship with the leader. Effective followers, according to Chaleff, are courageous, responsible, and proactive. Chaleff identified five dimensions to what he terms “courageous followership”: the courage to assume responsibility, the courage to serve, the courage to challenge, the courage to participate, and the courage to leave. According to Chaleff, the essence of courageous followership is paradox:

1. A courageous follower has a clear internal vision of service, while being attracted to a leader who articulates and embodies its external manifestation.
2. Courageous followers remain fully accountable for their actions while relinquishing some autonomy and conceding certain authority to a leader.
3. A central dichotomy of courageous followership is the need to energetically perform two opposite roles: implementer and challenger of the leader’s ideas.
4. There is inherent tension between the identity a follower derives from group membership and the individuation required to question and creatively challenge the group and its leadership.
5. Followers often benefit from the leader as mentor, learning crucial things, yet at the same time must be willing to teach the leader.
6. At times, courageous followers need to lead from behind, breathing life into their leader’s vision, or even vision into their leader’s life.

7. Senior followers often are important leaders in their own right and must integrate within themselves the perspectives of both leadership and followership (pp. 12-13).

Chaleff makes an important distinction between “follower” and “subordinate.” A subordinate reports to someone of higher rank and may be a supporter, an antagonist, or indifferent. A follower “shares a common purpose with the leader, believes in what the organization is trying to accomplish, and wants both the leader and the organization to succeed” (p.13).

Chaleff’s courageous follower seems congruent with Kelley’s (1992) definition of an “effective follower” who he defines as an independent thinker, who assumes responsibility with enthusiasm and assertiveness. Kelley’s exemplary follower is a risk taker, self-starter, and independent problem solver who can succeed without strong leadership. Kelley (1993) also suggested that exemplary followers add value to an organization in two very important ways: they do a great job on critical path activities and they nurture and leverage a web of organizational interrelationships. Later he summarized their skills into three broad categories: job skills, including focus and commitment, competence in task activities, and initiative; organizational skills, including serving as team members and forming networks with leaders and other organizational systems; and a values component, a courageous component that guides their organizational relationships and job activities (Kelley, 1992).

In contrast, Kelley (1992) also identified the primary characteristics of poor followers. Ineffective followers include:

1. the capable cynic who criticizes a leader's actions, withholds personal action, and settles on disgruntled acquiescence;
2. the conformist follower who is intellectually lazy and does only what they are told;
3. passive followers who act morally only on the prodding of someone else; and
4. pragmatic followers who are unwilling to disturb the status quo and look away from wrongdoing rather than confront it.

According to Kelley (1992), alienated followers comprise 15-25% of an organization. These followers have somehow become cynical and withdrawn. They consider themselves victims who have been treated unfairly. Alienated followers feel the organization does not recognize or use their talents and ideas and exploits them for the organization's gain. They feel the organization has not held up their end of the bargain and have not dealt with the follower fairly. Alienated followers want to punish someone for the anger and hurt they feel. Their emotional energy is directed against the parts of the organization that they dislike. The fate of alienated followers is often being fired or

Table 1

Alienated Characteristics

How They See Themselves	How Others See Them
- A maverick who thinks for him/herself	- Troublesome, cynical, negative
- Has a healthy skepticism	- Chip on the shoulder
- Plays the devil's advocate	- Headstrong and lacking judgment
- Is the organizational conscience	- Not a team player
- Sticks up for the little person	- Adversarial to point of hostility

reassigned. These followers score high on independent, critical thinking, but low on active engagement. Table 1 summarizes characteristics of alienated followers.

Conformist followers make up 20-30% of an organization and are known as the “good children.” These followers are eager to take orders and yield to the leader’s ideas and authority. Conformists know their place and find comfort in the social structure. They believe following the established order is more important than outcomes and that disagreeing with their supervisor will be punished. This attitude allows a domineering leader or culture to prosper. These followers do not think for themselves and are unable and unwilling to be creative. While offering efficiency in stable times, they contribute very little in today’s rapidly changing environment. Conformist followers score high on active engagement, but low on critical, independent thinking. Table 2 summarizes their characteristics.

Table 2

Conformist Characteristics

How They See Themselves	How Others See Them
- Accepts tasks easily and gladly	- Lacks own ideas
- As a team player	- Obsequious and self-deprecating
- Trusting and committed to leader and organization	- Unwilling to take unpopular position
- Minimizes conflict	- Averse to conflict to point of failure
- Non-threatening to leader	- Willing to compromise own and family’s needs to please organization

An organization typically has twenty-five to thirty-five percent pragmatist followers, mediocre workers who look out for themselves. Pragmatist followers have a low tolerance for risk. While they want to do a good job, they are unwilling to risk, or

worse, fail. They avoid taking strong positions that might alienate powerful people. They abhor conflict and always have an excuse and a paper trail for any failure. Preferring to be safe, pragmatists set their sites low and make sure they have the support of others to do so. While they keep their jobs, pragmatist followers are seldom promoted. They score in the middle on both active involvement and critical, independent thinking. Typical pragmatist follower characteristics are summarized in Table 3.

Table 3

Pragmatist Characteristics

How They See Themselves	How Others See Them
- Attuned to the shifting winds of organizational politics	- Plays political games
- Knows how to work the system	- Bargains to maximize own self-interest
- Keeps things in perspective	- Completes tasks in mediocre fashion with little enthusiasm
- Toes the middle line to keep organization from going overboard	- A bureaucrat who adheres to the letter of the rule rather than the spirit
- Plays by the rules	

Passive followers make up 5-10% of an organization's work force according to Kelley.

Passive followers look to leadership to do their thinking, lack initiative and a sense of responsibility, and require constant direction. They never complete more than they have been assigned and often will be considered lazy, incompetent, and unmotivated. Kelley suggests that passive followers may just not have developed their followership skills yet, so they basically do nothing. Table 4 summarizes passive follower characteristics.

Table 4

Passive Characteristics

How They See Themselves	How Others See Them
<ul style="list-style-type: none"> - Relies on leader's judgment - Takes action only when boss says so - Lets people who get paid for it handle the headaches 	<ul style="list-style-type: none"> - Only putting in time, little else - Doesn't do their share - Requires an inordinate amount of supervision relative to contribution - Follows without considering why

Kelley concluded that ineffective followers exhibit a lack of involvement that allows them to be abused by unethical leaders. Avolio (1999) agreed that these passive, dependent followers are the ideal match for the autocratic leader. Howell and Costley (2001) added that these individuals expect training to be served to them and require a 'parental' leader to care for them and feed their development.

Several theorists have offered ideas on how to develop a new breed of followers. Lundin and Lancaster (1990) suggested that organizations need to reconceptualize the workplace to acknowledge the active role that followers can take in managing themselves. They proposed that empowered followership must be institutionalized through the implementation of self-managing work teams. Organizations should hire and train for the skills consistent with effective followership: communication skills, problem solving, coping with change, and conflict management. Finally, organizations must recognize and celebrate followership, much as it does leadership.

Kelley (1988) agreed that recognizing followership skills is a critical component of cultivating effective followers. He also recommended developing followership skills through training for all employees in skills such as critical thinking, self-management, aligning personal and organizational goals and disagreeing agreeably. He suggested the

institution of 360-degree evaluations: evaluations from peers, subordinates, and self, as well as from supervisors. He encouraged the implementation of leaderless groups or groups with temporary and rotating leadership as another method of developing effective followership. Finally he suggested finding ways to reward followership.

Recent work on followership has focused on its development through implementation of transformational leadership. Dvir, Eden, Avolio, and Shamir (2002) found that transformational leadership had a positive impact on direct follower development and on indirect follower performance. In differentiating between transactional leadership and transformational leadership, Bass and Avolio (1990b) as quoted by Dvir et al. (2002) concluded that transactional leadership involves leaders exerting influence by “setting goals, clarifying desired outcomes, providing feedback, and exchanging rewards for accomplishments” (p. 735). Transformational leadership, in contrast, involves leaders who exert additional influence “by broadening and elevating followers’ goals and providing them with confidence to perform beyond the expectations specified in the implicit or explicit exchange agreement.” A key component of transformational leadership is the development of followers (Avolio & Gibbons, 1988). Transformational leaders inspire motivation, stimulate the intellect of their followers and treat followers with individualized consideration, thus “transforming” followers. This transformation results in exceptional performance (Bass & Avolio, 1990b)

In establishing a conceptual framework of follower development, Dvir et al. (2002) identified three main domains: motivation, morality, and empowerment. They selected motivation as a domain based on the work of Burns (1978) who proposed that transformational leaders develop followers motivation at the highest levels of self-

actualization needs rather than lower needs in Maslow's (1954) needs hierarchy.

Transactional leaders, in contrast, focus on fulfilling followers' current needs. Burns (1978) and Bass (1998) both identified morality as the second follower developmental continuum. Transformational leaders must be morally 'uplifting.' Finally, the empowerment continuum was selected based on the work of Bass and Avolio (1990b), Avolio and Gibbons (1988), and Kelley (1988, 1992) which pointed to empowerment as followers' ability to think independently, take initiative, and critically evaluate.

Dvir et al. (2002) found that transformational leadership did enhance at least one measure each of motivation, morality, and empowerment. In related research, Jung and Sosik (2002) found that transformational leadership was positively related to empowerment, as well as group cohesiveness and the perception of group effectiveness. This finding confirms Goffee and Jones (2001) who suggested that followers want leaders who engender three emotional responses: a feeling of significance (of being valued), a feeling of community (a unity of purpose), and a feeling of challenge (excitement and engagement in the world).

Since Kelley (1992) introduced this followership typology (see Figure 1), there has been almost no research to confirm his proposed model. Only two recent, unpublished dissertations were found to pertain to Kelley's work. Caesar (1998) examined the impact of different kinds of followership on leadership and organizational performance in a Canadian chartered bank. He found no significant differences between followership style and branch performance, between leadership and followership style within individual bank branches, or between leadership styles and branch performance. In addition, Caesar found no relationship among followership style, leadership style or bank

branch performance. Colangelo (2000) assessed the followership style of Air Force enlisted members attending airman leadership school in relationship to the leadership style of their supervisors. He found no significant relationship between followership style and the leadership style of the airmen's supervisor.

No other empirical research was uncovered on the topic of followership style. This limited empirical literature on followership suggests much could be learned by further study of this important aspect of group/team work.

The Virtual Environment

Virtual Work

While the number of workers involved in virtual work has skyrocketed in the past decade (Nilles, 2000), the nature and definition of virtual work is far from precise at this time. Crandall and Wallace (1997) offered a framework for virtual work which encompasses three successive stages of development. Their initial stage, telecommuting, has employees placed in remote locations communicating electronically through telephones, faxes, and computer links. In other words, employees are dispersed throughout an electronic network. The objective of this initial stage of virtual work is to increase flexibility for workers and reduce costs associated with bricks and mortar offices, use of time, and commuting. According to Crandall and Wallace, this stage of virtual work requires managers who are able to exercise a nontraditional and flexible style of reporting and feedback and employees (followers) who are capable of working independently under their own initiative. A requirement of the manager/follower relationship in this work is regular "checkpoint meetings" to maintain job-related communication, as well as social interaction. According to Crandall and Wallace (1997),

until the early 1990s almost all virtual work was telecommuting, designed as a response to the personal needs of individual employees. Telecommuting, as they define it, did not connect to strategic business interests and did not necessarily improve responsiveness to customers.

The second stage of virtual work is what Crandall and Wallace (1997) labeled the front line model. This model involves placing sales and service locations in the field, close to the customer where the tools of the telecommuting model are used to deal directly with the company's strategic issues. Characteristic of this model is the blending of the virtual workplace with a proactive sales culture. Relationships with customers become primary and ties to the physical office are loosened. In this model, the high degree of focus on the customer results in minimal contact with other company employees. Managers and employees, alike, must come to view the customer as their boss. Again the need for flexibility and a non-traditional approach to reporting and feedback are essential. Unlike telecommuting, where the employee work site is "at a distance" from the physical office location, front line workers work anywhere at any time; employees are no longer tied to a specific, physical location.

Crandall and Wallace (1997) labeled the third stage of virtual work the cyber link model. This model is the highest level of "virtualness" an organization can achieve. In this model, work is managed collaboratively with employees, producers, suppliers, and customers from all levels within and outside the organization working together in a flexible virtual environment. While this model increases vulnerability for the organization, it also provides the opportunity for fresh ideas and new ways of interacting to improve products and services. In this model, the role of the manager becomes one of

coaching and coordinating. All participants must have the capability and willingness to effectively use the technology necessary. Crandall and Wallace also suggest that social networking is important in this context as well.

In addition to the recognition that how virtual work gets done varies, there is also the idea that all tasks are not equally suited for virtual work. In a study comparing virtual and face-to-face groups, Hollingshead, McGrath, and O'Connor (1993) proposed that the media available to support virtual work may be more or less appropriate depending on the type of task to be accomplished and the richness of information transmitted by the specific media form (Figure 2).

Based on work by McGrath and Hollingshead (1993) and Daft and Lengel (1986), one axis identifies four task types: generating ideas and plans, choosing the correct answer, choosing the best answer, and negotiating conflicts of interest. The first three are cooperative tasks. The fourth has both competitive and cooperative features, requiring reconciliation of individual goals with the group goal. Consensus becomes increasingly difficult and interdependence of the group members increases as one goes from the first to fourth level of task. While generating ideas requires no consensus of group members, finding the right answer requires a member who has the answer to demonstrate that the answer is right and convince other members of the group that it is the right answer. Decision making tasks require group members to reconcile their differences in information, attitudes, and opinions, and to reach consensus on the "best" answer. Finally, negotiation requires reconciliation of members' conflicts of interest as well as their differences of information, attitudes, and opinions to come to consensus.

Hollingshead, McGrath, and O'Connor (1993) suggest that at each increasing level of interdependence, the group's need for richness of information increases, thus requiring a different type of media capable of providing the richness needed. Therefore, certain types of media are better suited to specific types of group tasks.

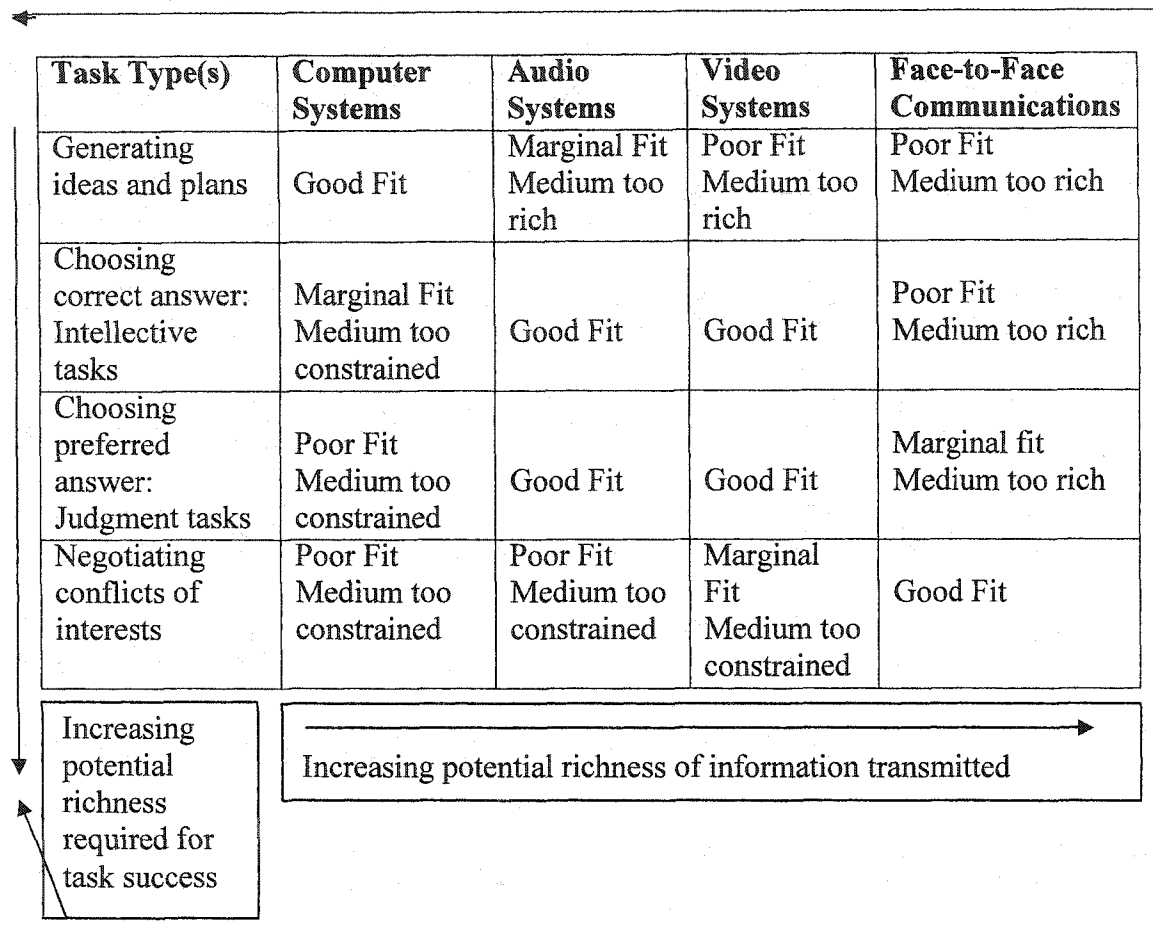


Figure 2. Task-Media fit on information richness. Source: Adapted from McGrath and Hollingshead (1993)

Virtual work has been found to have both positive and negative outcomes. Hill, Miller, Weiner, and Colihan (1998) found increased productivity to be one of the benefits of virtual work. Respondents in their study cited a reduction in commute time, fewer distractions, greater flexibility in work times, and a more comfortable environment as

factors impacting productivity. Other researchers have also identified increased productivity and effectiveness as benefits of working virtually (Callentine, 1995; Pitt-Catsouphes & Marchetta, 1991; U. S. Department of Transportation, 1993).

Frogatt (2001) summarized the benefits that workers reported related to autonomy over their time and place of work:

1. More strategic use of work time.
2. Less time spent commuting or fewer hours driving during high traffic times.
3. Fewer disruptions and enhanced ability to concentrate.
4. Improved self-management skills.
5. Enhanced creativity from fewer constraints and more variety in activities.
6. Lower stress levels and higher morale.
7. Decreased absenteeism.
8. Improved collaboration skills.
9. Focus on results rather than office politics (p.12-13).

However, other studies have found that virtual workers demonstrate no difference from traditional office workers on variables related to productivity, absenteeism, and turnover (Ramsower, 1985). Hill et al. (1998) suggested that findings from studies of home-based telecommuters may not be generalizable to front line and cyber-linked individuals.

Research on the morale of virtual workers is also mixed. Callentine (1995) and Pitt-Catsouphes and Marchetta (1991) found that job satisfaction and morale increased as a result of the flexibility of virtual work. However, Ramsower (1985) found no significant difference between telecommuters and non-telecommuters, and Kraut (1987)

actually found lower job satisfaction among telecommuters on working conditions, amount of job variety and job security.

Related to morale and job satisfaction is research on work/life balance of virtual workers. Some research indicates that virtual work allows employees to balance work and home responsibilities (Jenson, 1994) while others see the blurring of the boundaries between home and work as creating the opportunity for workaholism and a negative impact on family relationships (Hill et al., 1998; Jones, 1997; Olson & Primps, 1984; Hill, 1995). Some research also suggests that virtual workers may work longer work hours because of the lack of commute time they are required to give (Gordon & Kelly, 1986; Nilles, 1994).

Virtual Teams

Much of the research on virtual teams focuses on the differences and similarities between virtual teams and face-to-face teams and does not include or reference the issue of leadership in virtual teams.

Hill et al. (1998) concluded that most of the research indicates a negative impact on teamwork and communication as a result of working virtually (Callentine, 1995; Weiner & Hill, 1995; Ramsower, 1985). However, Hill et al. found no difference between individuals who worked virtually and those physically present in a traditional office. Both virtual and traditional workers reported the same problems with sustaining teamwork (Hill et al.). Bigelow (2000) suggested that virtual organizations are particularly susceptible to issues related to communications and infrastructure. She concluded that virtual organizations must invest in both technology and training if they want their employees to be successful. Linda Ruth, president of a consulting firm, agreed

that supervisors and employees must communicate explicitly: “most important to the success of a virtual arrangement is the supervisor’s effort to keep a telecommuting staff member in the loop...to make explicit what is implicit” (PRIMEDIA, 2002).

Kayworth and Leidner (2000) suggested that virtual teams face distinctly different challenges. Communication media differ in their ability to convey “social presence.” Information-rich, non-verbal cues, such as voice inflections, gestures, and facial expressions that contribute to the “message,” may be lost in much of the communication technology used today. Based on a review of the relevant literature, Kayworth and Leidner concluded (see Table 5):

Moreover, important social/contextual information, such as member’s social status or level of expertise, may be lost or distorted in virtual team environments characterized by high levels of anonymity (Dubrovsky, Kiesler, & Sethna, 1991). Also, the ability to develop relational links among team members may be hindered, which may negatively affect such outcomes as creativity, morale, decision-making quality, and process loss (Walther & Burgoon, 1992). Finally, the lack of a social context may alter or hinder the process through which team members develop trust (Jarvenpaa, Knoll, & Leidner, 1998) (p.9).

The difference in communication patterns that occurs in virtual teams was previously explored by Sproull and Kiesler (1991). They suggested that in face-to-face groups, participation is unequal. Members with higher status dominate the discussion. Managers talk more than members, men speak more than women, and people in the front of the room talk more frequently than those in the back. Decision making often hinges on knowing who dominates the discussion. All of these dynamics changed in their exploration of the virtual environment. Participation tended to be more equal, regardless of status, gender, or leadership role. Decision-making became more difficult as group members had more difficulty discovering how other group members felt. Reaching consensus was difficult for the group members. Conflict was deeper, and politeness and

acknowledgement of others views' decreased. Group decisions were "unpredictable, unconventional, democratic, and less constrained by high-status members" (p. 66).

Katzenbach and Smith (2001) summarized the upside and downside of virtual teams. On the positive side, they suggested that virtual teams allow individuals to work with the most talented and appropriate persons, not just the ones closest. Collaboration can be accomplished across great distances without ever having to travel. This saves money, speeds progress, and allows members of virtual teams to be home with their

Table 5

Challenges of Virtual Teams

Type of Challenge	Description
Communications	Traditional social mechanisms are lost or distorted Communication dynamics such as facial expressions, vocal inflections, verbal cues, and gestures are altered. Distinctions among member's social and expert status lost or distorted. Inhibition in building trust Communication process dysfunction
Culture	Potential for multiple cultures requires greater communication. Unrealistic cultural expectations. Communication may be distorted through cultural misunderstandings/biases.
Logistics	Multiple time zones make scheduling meeting as well as travel very difficult.
Technology	Technophobia. Need for proficiency across a wide range of technologies. Team membership bias toward individuals skilled at learning new technologies.

families more. The technology of the virtual environment also often preserves the formal memory of the work and allows asynchronous interaction which provides "think/process

time” for group members. On the downside, virtual work does have the potential to be interruptive of family time, and technology can be susceptible to “technical difficulties.” In addition, the technology of virtual work makes it easy to add many members to teams when the most effective teams are often small in size. Finally, the technology itself often prohibits non-verbal communication and “body language is important” (p. 50).

Katzenbach and Smith (2001) suggested several rules for virtual teams:

1. Get the group together to confirm the performance purpose and goals and get to know one another. A face-to-face meeting is important.
2. Divide tasks and goals into individual and collective work. Both are needed for group success.
3. Match skills and perspectives to take advantage of personalities as well as skills.
4. Agree on Netiquette, such as response time limits, whether responses are mandatory or optional, and what to do if all group members do not participate.

Lurey and Raisinghani (2001) also found factors which related positively to team performance and member satisfaction centered on the establishment of specific team processes and the positive relationships that team members developed.

A typology of virtual teams is suggested by Bell and Kozlowski (2002) based on whether member roles are singular or multiple, the lifecycle of the team is continuous or discrete, the team functions in real or distributed time, and the boundaries that the team spans are singular or multiple. Work flow patterns and task complexity are additional factors which impact the virtual team and help to differentiate it (Figure 3).

Bell and Kozlowski (2002) suggested that at one end of the virtual team spectrum lies the “prototypical” virtual team, typically discussed in literature, that is “distributed

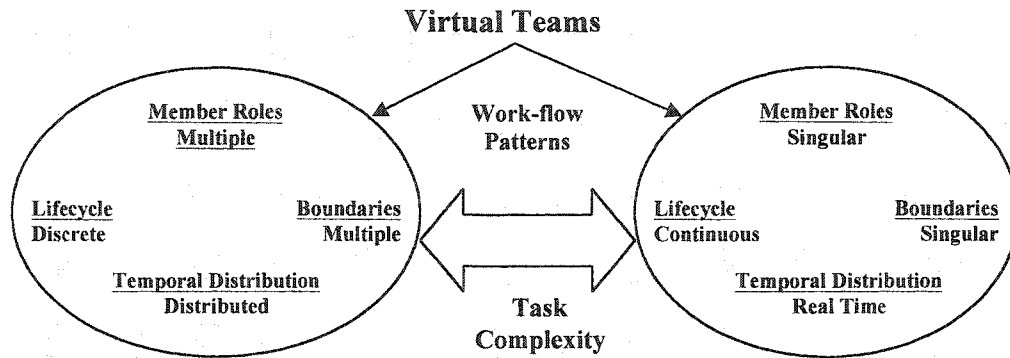


Figure 3. Characteristics that distinguish different virtual teams.

across time, spans numerous functional, organizational, and cultural boundaries; is short-lived; and is composed of members who each possess multiple roles in different virtual teams” (p. 28). At the other end of the spectrum is a virtual team that has many of the same characteristics of a face-to-face team. This team operates in real time, has more rigid boundaries, functions long-term, and whose members often have singular roles. Mediating where virtual teams fit on this continuum is task complexity and workflow processes.

Van de Ven, Delbecq, and Koenig (1976) used Thompson’s (1967) typology to characterize the interdependence associated with workflow processes. *Pooled or additive work* requires the least amount of interdependence since responsibilities are performed independently and then combined to produce the finished product. *Sequential work* flows from one member to the next in a single direction. *Reciprocal work* requires the work and activities to flow back and forth between members in order for feedback to adjust the

final work product. The most interdependent work is *intensive* and requires team members to diagnose, problem solve, and/or collaborate simultaneously to accomplish the team task.

According to Bell and Kozlowski (2002), within the context of workflow, task complexity can range from low to high. Less complex tasks are often static and have weak, asynchronous, intra-member linkages that require minimal collaboration among team members. These tasks usually have an additive/pooled or sequential workflow. As tasks become more complex, they become more dynamic with demanding time requirements which impact the team's interface with the outside environment. These highly complex tasks require greater levels of synchronous, real-time collaboration and usually have a reciprocal or intensive workflow. The combination of characteristics which comprise task complexity set constraints on team structure and process. This typology of virtual teams is a somewhat more complex approach than Hollingshead, McGrath, and O'Connor's (1993) task-media fit model.

Leaders of Virtual Groups

Despite the unique nature of virtual groups, little empirical work exists that examines leadership in virtual settings (Kayworth & Leidner, 2000, 2002). Fisher (2000) speaks briefly to leadership in virtual teams by providing suggestions that may contribute to virtual team success:

1. Develop a common vision that provides a clear and common purpose.
2. Use operating guidelines which provide a common base of shared values and some processes for team governance. These guidelines - agreements about

working relationships that can be assumed - free the team to focus on more important technical and business issues.

3. Use goals. Specific measurable goals provide a clear focus for daily activities as well as the basis for decisions arising from conflicts, trade-offs, and compromises that teamwork demands.
4. Assure virtual collocation. Linking workers through technology as though they are located in the same physical location is essential to team effectiveness. The linking technology must do just that - link.
5. The most important thing leaders of virtual groups can do for their group members is ensure that they meet face-to-face periodically to meet their own social needs.

The face-to-face meeting is especially important at the beginning of a virtual team's work together. This initial face-to-face meeting provides the opportunity for followers to get to know each other and establish a common purpose, direction, guidelines, and operating procedures. It also facilitates later online or asynchronous communication (Fisher, 2000).

Lipnack and Stamps (1997, 2000), in their work on virtual teams, suggested that virtual teams are filled with leadership, with multiple leaders the norm rather than the exception. Regardless of titles, virtual groups dealing with complex problems demonstrate shared leadership. Leadership roles required by virtual teams include coordinator, designer, disseminator, tech-net manager, socio-net manager, and executive champion. Typically, both social and task leaders operate in virtual teams. Task leaders

relate to expertise, activities, and decisions required to produce results. Social leaders support feelings of group identity, status, and personal satisfaction (Lipnack & Stamps).

Townsend, DeMarie, and Hendrickson (1998) concluded that virtual group leaders face a work environment that is significantly different and more complex. Given that conclusion, others have suggested that the skills and roles necessary for effective virtual group leadership may be significantly different from those needed in face-to-face settings (Hooijberg, Hunt, & Dodge, 1997). Kayworth and Leidner (2000, 2002) suggested that because of the altered social context, leaders of virtual teams must be able to ensure group unity and cohesiveness by building and maintaining the social climate of the group. Likewise, managing and coordinating the communication process becomes extremely important in virtual groups. These two dynamics are reminiscent of the consideration and initiating structure components of the conventional leadership literature.

Kayworth and Leidner (2000, 2002), based on their review of the relevant literature, specifically identified what they considered to be the characteristics of an effective virtual team leader (Table 6). They compared the results of their research on leaders of virtual groups with the behavioral, contingency, and behavioral complexity theories of leadership. Their findings supported the behavior theory: effective leaders exhibited strong skills in both consideration and initiating structure. Specifically, effective leaders were perceived as mentoring team members: guiding, encouraging, challenging, motivating members to excellence. Effective leaders were viewed as caring, concerned, and understanding, yet, simultaneously, able to assert authority to achieve goals. They were able to engage followers collaboratively yet personally, while

Table 6

Characteristics of Effective Virtual Team Leaders

Dimension of Effective Leadership	Description of An Effective Virtual Team Leader
Communication	Provides continuous feedback Engages in regular, prompt communication Provides a clear, detailed 'picture' of tasks
Understanding	Sensitive to schedules of team members Appreciative of team member opinions and suggestions Exhibits care and concern over team member problems Expresses a personal interest in team members Gets to know other team members
Role Clarity	Clearly defines responsibilities of all team members Able to exercise authority to ensure follow-through on assignments Able to mentor virtual team members in a 'hands-on' fashion
Leadership Attitude	Assertive-yet not overbearing or 'bossy' Caring-yet not timid Ability to relate to team members at their own level Consistency over the life of the project

Note. From: Kayworth & Leidner (2002).

maintaining a distance. Effective leaders also were perceived to have a great deal of task-related skills. They provided constant feedback, guidance, suggestions, and coaching, while moving the group to task completion. They were able to clearly convey the responsibilities of team members and exercised their authority to ensure follow-through.

In regards to the contingency theory of leadership, Kayworth and Leidner (2000, 2002) concluded that the virtual setting represents one situational factor that may influence the relative importance of certain key leadership roles. They argue that the roles of social facilitation and communication, as well as the ability to manage the

technological environment, may be more important in virtual groups when compared to more traditional work groups.

Their results were also consistent with the behavioral complexity theory of leadership. This theory suggests “effective leaders must be able to deal with paradox and contradiction by performing multiple (and potentially competing) leadership roles simultaneously” (Dennison, Hooijberg, & Quinn, 1995). Specifically, effective team leaders must be able to exhibit a varied set of roles related to task achievement, individual team members’ needs, and team cohesion (Hackman & Walton, 1986; Stott & Walker, 1995). Kayworth and Leidner’s results confirmed that more effective leaders were perceived as displaying a wider degree of leadership behaviors. They simultaneously demonstrated the ability to be understanding and supportive of team members, while still remaining assertive and maintaining authority.

In his recent work on e-leadership, Avolio (2000) suggested that what followers consider as exemplary leadership will now need to take into consideration how leaders use technology to inform, monitor, and make decisions, as well as how stable, goal-oriented, honest, credible, intellectually challenging, caring and inspirational they are.

Gender in Virtual Groups

The empirical research on gender in virtual groups is almost nonexistent, and what does exist relates, almost exclusively, to women as followers rather than leaders and the flexibility of virtual work. While not specifically researching virtual groups, Scandura and Lankau (1997) found that women may demonstrate a greater appreciation to organizations which offer family-responsive policies such as flexible work hours which virtual work may allow.

In her research on the gender impact of temporary virtual work groups, Lind (1999) found women in virtual groups perceived a higher level of group cohesion and support for individual members than did men in virtual groups. In a related finding, Lind found, as did Gefen and Straub (1997), that women in virtual groups perceived email as more useful and as having a higher social presence than did men. Overall, women were more satisfied with the virtual group than men in virtual groups, or women in face-to-face groups. Women in virtual groups also felt conflict was readily resolved, as opposed to women in face-to-face groups who perceived conflict to be smoothed over rather than resolved.

Raghurama, Garud, Wiesenfeld, and Gupta (2001) in their research on adjustment to virtual work, found women reported a greater level of adjustment to virtual work groups than men. This finding is consistent with Hall and Parker (1993) and Scandura and Lankau (1997). Hill, Miller, Weiner and Colihan (1998) found that female virtual workers are more productive than male virtual workers. Thus, Raghurama et al. concluded that the role demands women face may be especially consistent with virtual work.

Avolio (2000) suggests that future research might explore whether male and female leaders use technology with followers in different ways, resulting in different social structures and interactions. Since no studies were found specifically on women as leaders of virtual groups, this area is also ready for further empirical study.

Emergent Propositions

Based on the foregoing literature review, each research question must now be examined to determine whether there is sufficient evidence to support one or more propositions that may have sufficient merit to be tested as hypotheses.

The first research question is whether there is a relationship between followership type by gender and preference for gender-based leadership behavioral characteristics in the virtual environment. There has been no empirical work done on followership preferences by gender for gender-based leadership behavioral characteristics in virtual groups. In contrast, a significant amount of research on face-to-face groups in the 60s, 70s, and 80s clearly indicated a preference for male leadership by both male and female followers in the face-to-face environment (Schein, 1973, 1975; Powell & Butterfield, 1979). However, in the last decade some trend analysis studies indicate that as more women emerge as managers, top-level administrators, and CEOs, there is an emerging preference for women as more effective managers and supervisors (*HRMagazine*, December 1996, December 1998).

No studies compare virtual to face-to-face groups on the issue of gender-based leadership behavioral characteristics by followership preference by gender. However, the literature does suggest that virtual teams face several distinctly different challenges than face-to-face groups, especially relating to communications and culture, logistics, and technology (Kayworth & Leidner, 2000). While Bell and Kozłowski (2002) agree, their recent work suggests that virtual teams are not necessarily created equal; what is appropriate and effective in one team may not be so in another with different work flow processes and task complexities. One notion is that in some virtual teams, those more

closely aligned with Bell and Kozlowski's long-term, synchronous teams with highly complex tasks which require reciprocal or intensive workflow and real-time collaboration, follower preferences would be similar to those of face-to-face groups. However, followers in teams at the other end of Bell and Kozlowski's continuum could not be expected to exhibit the same preferences.

Only two empirical studies were found on the followership typology and both were conducted in face-to-face environments. Both looked at the relationship between followership type and leadership style, but neither examined the relationship between followership type by gender and preference for gender-based leadership behavioral characteristics. Both failed to find any relationship between followership type and leadership style (Caesar, 1998; Colangelo, 2000).

The lack of empirical research found in the existing literature does not allow a strong enough argument to be made that would suggest an answer to or proposition about the first research question. Because of this lack of evidence, only the statement of a null hypothesis as a basis for further research is possible on the first research question.

The second research question is: In the virtual environment, are preferred gender-based leadership behavioral characteristics by followership type by gender identified as predominantly male or female? Again, there is no empirical evidence on this question. The empirical evidence that does exist is on leadership behavioral characteristics in the virtual environment. This evidence seems to suggest that leaders of virtual teams demonstrate behaviors similar to leaders of face-to-face teams: both task and relationship behaviors, initiating structure and consideration. However, Kayworth and Leidner (2002), Fisher (2000), and Avolio (2000) all suggest that social facilitation

and communication (more characteristically identified as female behaviors) and the ability to manage the technological environment may be more important in virtual groups.

The evidence on male and female leadership differences in face-to-face groups suggests that women may exhibit more consensus building, inclusiveness, and interpersonal relationships, as well as a willingness to share power and information (French, 1986; Grant, 1988; Rosener, 1990; Helgesen, 1990; Moldt in Nelton, 1991; Eagly, Karau, & Makhijani, 1995). Thus, in answer to research question number two, the literature only suggests that the characteristics more consistent with female leadership behaviors may be of particular benefit in the virtual environment. Again, the empirical evidence does not provide a convincing argument to allow a proposition to be stated regarding whether male or female behavioral leadership characteristics are preferred by followership type by gender, and only the statement of a null hypothesis is possible.

Based on the literature review the following summary will guide the proposed research design for this study.

Table 7

Summary – Research Design Implications

Research Question	Proposition	Hypothesis
In the virtual environment, is there a relationship between any of the five followership types by gender and preference for gender-based leadership behavioral characteristics?	No proposition is possible based on the empirical evidence identified as relevant to the question in the review of literature.	In the virtual environment, there is no relationship between any of the five followership types by gender and preference for gender-based leadership behavioral characteristics (null hypothesis).
In the virtual environment, are preferred gender-based leadership behavioral characteristics by followership type by gender identified as predominantly male or female?	No proposition is possible based on the empirical evidence identified as relevant to the question in the literature review.	There will be no difference in followers preferred gender-based leadership behavioral characteristics, as identified as predominantly male or female, when considered by followership type and gender (null hypothesis).

The following chapter will explore the appropriate research design to test the stated hypotheses, as well as gather additional data to confirm and add to what has been learned from the review.

CHAPTER 3: METHODOLOGY

Restatement of the Problem

To review, the purpose of this study was to determine whether there is a relationship between male and female followers by type (as defined by Kelley, 1992) in the virtual environment and specific preferences for gender-based leadership characteristics. The study also considered whether followers' preferences in the virtual environment are those predominantly identified as male or female. Specifically, this study examined, within the context of a non-formal educational organization, the two following research questions:

1. In the virtual environment, is there a relationship between any of the five followership types by gender and preference for gender-based leadership behavioral characteristics?
2. In the virtual environment, are preferred gender-based leadership behavioral characteristics by followership type by gender identified as predominantly male or female?

Based on the review of relevant literature and the lack of empirical evidence examined in the previous chapter, two hypotheses (null) have been suggested:

1. In the virtual environment, there is no relationship between followership type by gender and preference for gender-based leadership behavioral characteristics.

2. There will be no difference in followers preferred gender-based leadership behavioral characteristics, as identified as predominantly male or female, when considered by followership type and gender.

Research Design

A critical decision in the exploration of these hypotheses is research design. Initially it is helpful to have a sense of the possible alternatives for research, and which one or ones may provide the most insight and fit to the questions at hand. According to Rudestam and Newton (1992), the method selected needs to evolve out of the research question and be determined by it.

Most social science research in the 20th century stems from a school of thought known as logical positivism which states that knowledge is derived from direct observation and logical inferences based on direct observation (Rudestam & Newton, 1992). Much social science research is also based on empirical and quantitative traditions. Empiricism refers to the commitment to obtain knowledge from experiences with the senses, in other words, based on experience. Quantitative research, based largely on statistical methods, looks for patterns and relationships which are expressed with numbers. Descriptive statistics attempt to describe these relationships and patterns, while inferential statistics attempt to generalize from samples to populations using probabilistic arguments. In experimental research, aggregate differences between groups or classes of subjects are determined through the use of quantitative research designs. Precise measurement and the control of any sources of error are primary. The goal is to identify the variable of interest (the independent variable), isolate and manipulate that variable, and document the impact on the second, or dependent, variable. This research relies on

two procedures essential for methodological control: random sampling and random assignment. Random sampling assures that subjects are selected “randomly” so that every member of the population has an equal chance of being selected. Random assignment assures that subjects are assigned to groups or experimental conditions in such a way that each subject has an equal chance of being selected for each condition. This procedure ensures that subject characteristics are randomly distributed in every aspect other than the manipulation or treatment (Rudestam & Newton, 1992).

Unfortunately, experimental research is often impractical, and has been suggested as potentially unethical, when using human subjects. For instance, the withholding of medicine needed for the control of paranoid schizophrenia to determine behavioral outcomes might be considered unethical, and, possibly, a risk to society if the resultant behavior included physical harm to the subjects' families or neighbors. More typical in social science research is the “quasi-experimental” design which reduces the rigor of a controlled experiment, but maintains the argument and logic of experimental research (Cook and Campbell, 1979). Also called “ex post facto” research, this systematic empirical approach does not include manipulation or random assignment of subjects to conditions because the events have already occurred or they are inherently not manipulable (Kerlinger, 1979). In quasi-experimental design, causal statements become correlational, although it may be possible to infer a sequence of events in causal form based on the underlying theory rather than from the results (Rudestam & Newton, 1992). However, attempting to interpret the meaning of results when subjects assign themselves to the groups is problematic.

Whichever method is selected, experimental or quasi-experimental, the most common strategy in the social sciences is a comparison between groups. Since random assignment is not always possible in quasi-experimental designs, it becomes important to strive for “equivalence” of the groups by carefully matching the groups on key variables such as age, sex, etc. In an experimental design, evaluation of the data which details the differences between the groups using analysis of variance (ANOVA) or t test compares the size of the “between group” differences with the size of the ‘within group’ differences due to individual variability. In the correlational paradigm, correlations depend on comparing two distributions of scores usually dispersed along two dimensions. Statistical techniques such as multiple regression are especially popular in social science research to explain the relationship between continuous variables. In both experimental and quasi-experimental research emphasis tends to be placed on “statistically significant” findings, rather than the clinically or socially significant findings (Rudestam & Newton, 1992).

In an attempt to identify the relationship between the variables of followership, gender, and gender-based leadership behavioral characteristics, this phenomenological, quasi-experimental study was based on empirical data gathering and analysis strategies in a single case example. The context for this study was Cooperative Extension, a non-formal educational organization that provides education and training outside the constructs and constraints of classroom-based activities defined by legislation. Cooperative Extension is a national, educational outreach effort of land-grant institutions that provides research-based information and knowledge to citizens of the states in response to local, state, and national issues affecting individuals, youth, families, agricultural enterprises, and communities. Funding for Cooperative Extension comes

primarily from a combination of tax revenues at the federal, state, and county levels. Cooperative Extension's work is accomplished through a distributed workforce of extension agents located in counties throughout the states and extension specialists located on land-grant university campuses. Cooperative Extension was selected as the focus of this study for two reasons:

1. Cooperative Extension has a widely distributed workforce and is primarily dependent on government funding which has remained level or decreased over time. One strategy that is used to contain costs is virtual teams. The use of virtual groups to identify needs and plan and evaluate programs has significantly increased in Cooperative Extension work. E-mail and conference calls, as well as compressed and streaming video, are all used extensively throughout the western states.
2. Because the researcher is an employee of Cooperative Extension, access to the population of extension employees in the western states is possible. In addition, the results of this study will be of interest to Cooperative Extension as it attempts to strategically design successful work strategies for the future.

Subjects

The subjects for this study were professional field- and campus-based employees of Cooperative Extension in the western region of the United States. The western region includes California, Oregon, Washington, Montana, Idaho, Wyoming, Utah, Nevada, Colorado, New Mexico and Arizona, Alaska, and Hawaii. The states participating are those which provided direct access to their Cooperative Extension employee list serve to the researcher. The field-based employees in those states composed the pool of potential

subjects. Request for this direct access was made to the Extension Director in each of the states by the Director of Colorado State University Cooperative Extension. Because the information provided through this study is of benefit to Cooperative Extension, the Colorado Director agreed to ask his peers for direct access for the researcher to their system list serves. By granting the researcher direct access to the system list serves, any concern about coercion over the potential subjects is addressed, as the researcher has no power over any of the potential subjects. The total number of full time equivalent extension professionals in these 13 states, as recorded by the United States Department of Agriculture as of December 31, 2001, was 1980 (United States Department of Agriculture, 2002), thus the potential response pool was 1980.

Instruments

The present research used two instruments for the collection of data: the *Followership Questionnaire* which identifies followers by type as developed by Dr. Robert E. Kelley (Kelley, 1992) (see Appendix 4), and *Leadership Behavioral Characteristics in Virtual Groups*, a questionnaire designed by the researcher to identify preference for gender-based leadership behavioral characteristics (see Appendix 4). Permission was received from Dr. Kelley to use the *Followership Questionnaire* in the present study (see Appendix 2). Subjects were asked to provide an answer about their followership behavior to each question on this twenty-item survey. The questions were answered on a Likert scale that produced a rating of between 1 and 6. A value of 1 to 2 represented "rarely," while a value of 3 to 4 represented "occasionally," and a value of 5 to 6 represented "almost always." This instrument allowed the classification of employees into five followership types as described previously in chapters one and two:

exemplary, alienated, conformist, pragmatist, and passive. Various questionnaire items operationally define these followership styles. The classification is achieved by plotting the aggregate of the subject responses on two dimensions - independent, critical thinking and active engagement. Reliability and content validity of the *Followership Questionnaire* was established by previous research with the instrument (Caesar, 1998).

The *Leadership Behavioral Characteristics* questionnaire (see Appendix 4) was designed by this researcher to allow respondents to select their preferred gender-based leadership behavioral characteristics. The subjects were asked to rate on a Likert scale the behavioral characteristics they prefer in the leader of a virtual group. The ratings on this scale are from 1 to 6 and represented "least preferred" to "most preferred." These behavioral characteristics were identified by the researcher, based on previous empirical evidence, as primarily female leadership behaviors or primarily male leadership behaviors.

Since this instrument was not previously tested for reliability or validity, a two-part pilot test was conducted with a group of Extension professionals who are members of a virtual group that has functioned over the past three years to establish a leadership development program for extension employees in the western region. Reliability was established by having these subjects complete the instrument twice, one week apart. Test scores on the first administration were correlated with scores on the second administration. This method of establishing time sensitive reliability is known as the test-retest method and is often used by researchers to establish reliability (Sproull, 1995). A correlation coefficient of 0.6 and over for noncommercially tested instruments is considered good (Zikmund, 1991).

Content validity of the Leadership Behavioral Characteristics Questionnaire was established by having four experts in the field of management and leadership independently review the instrument's content and give opinions on whether the instrument measures what it intends to measure. These experts' opinions on whether the instrument measures what was intended were an indication of the instrument's content validity.

Data Collection

The subjects were contacted via an e-mail request for participation in the study (Appendix 3). The e-mail request was sent directly from the researcher to extension employees in each of the states through a comprehensive list serve for all employees of each state's Cooperative Extension system. The e-mail request asked individuals who had participated in a virtual group as a part of their extension work to participate in the study. The request letter provided interested individuals a link to a Colorado State University School of Education Graduate Programs web site. This site had no direct access except through the link provided in the e-mail request, so that individuals unrelated to the study could not confound the study results. The only individuals who had access to the server on which the web site resided were Dr. Donald Quick, Research Associate IV in the School of Education who established the site and the process by which the researcher received the responses, and the administrator of Academic Computing and Networking Services at Colorado State University. The researcher did not have direct access to this site.

Once at the site, the self-selected participants anonymously completed the two instruments. Submission of each subject's response generated an e-mail to the researcher

with answers to the questions as a text file devoid of all identifying information (IP addresses, e-mail addresses, etc). Thus the anonymity of all participants was assured and access to identifying characteristics of the subjects was not available to the researcher.

Delimitations of Research Design

Several limitations of the data collection method must be identified and discussed. First, there was no assurance that an individual would complete the questionnaire only once. However, multiple answers from subjects could also be a concern with a paper-and-pencil questionnaire. In this case, the questionnaire was sent to professionals who are employed by institutions of higher education, and who have been involved in research and academics as their career. It is unlikely that they would have reason to falsely influence the results of this study. Second, the generalizability of results garnered through this purposive sample is of concern because (1) a study built on a purposive sample impedes any statistical generalizeability beyond the sample population, and (2) those who self-select to respond may not fairly represent the entire accessible population of extension employees. Even more important is the inability to generalize these findings to other populations in different contexts. Clearly Cooperative Extension is a specific and unique, non-formal educational organization. Any findings may not hold in corporate, government, or other environments.

Method of Statistical Analysis

The basic method of statistical analysis for this study was an analysis of variance (ANOVA) to determine whether there was a relationship between followership type by gender and preference for leadership behavioral characteristics which are primarily identified as predominantly male or female. Analysis of variance (ANOVA) is used to

determine whether there is a significant difference between two or more means at a selected probability level; a difference that cannot be attributed to sampling error (Gay, 1987). The concept underlying ANOVA is that the total variation, or variance, of scores can be attributed to two sources - variance between groups and variance within groups (error variance). If the between group variance is enough larger than the error variance, a significant *F* ratio results and the null hypothesis is rejected. Thus, it would be concluded that followership type by gender did have a significant effect on preference for gender-based leadership behavioral characteristics. The level of statistical significance chosen for this study was .05. If significance levels are greater than .05, the null hypothesis would be rejected and the researcher would conclude that followership type by gender did have a significant effect on preference for gender-based leadership behavioral characteristics.

An analysis of covariance (ANCOVA) was also done to further test the significance of the relationship of followership type by gender and gender-based leadership behavioral characteristics by using length of time working in the virtual environment and age as covariates. ANCOVA is used as a technique for controlling extraneous variables and as a means of increasing power. Covariance can be used to equate groups on one or more variables and is essentially equivalent to matching groups on the variable or variables to be controlled. In other words, the groups are equalized with respect to the control variable and then compared. By using covariance, we are attempting to reduce variation attributable to another variable (Gay, 1987). Each of the followership groups, by gender, was further analyzed using age and longevity of work in the virtual environment as covariates. This analysis provided assurance that the followership groups are not significantly different due to the confounding variables of

age and experience in the virtual environment. Again, the level of statistical significance chosen for the study was .05. Significance levels above .05 would result in the rejection of the null hypothesis.

Finally, in the interest of determining whether theory regarding the hypothetical distribution of followership types as suggested by Kelley (1992) holds for this population, a chi square test was performed. A chi square test of significance is appropriate when the data are in the form of frequency counts occurring in two or more mutually exclusive categories. The test compares proportions actually observed in a study with the expected proportions to determine if they are significantly different. The chi square value increases as the difference between observed and expected frequencies increases. Whether the chi square value is significant is determined by consulting a chi square table. In this case the frequency distribution that Kelley suggests is seen in Table 8.

Table 8

Distribution of Followership Types

Followership Type	Frequency
Alienated Follower	15-25%
Conformist Follower	20-30%
Pragmatist Follower	25-35%
Passive Follower	5-10%
Exemplary Follower	0-35%

Given four degrees of freedom and a chosen significance level of .05, a chi square value of more than 9.488 will result in rejection of the null hypothesis that there is no

difference between the distribution that Kelley suggests and the distribution found in the study population. That is, a chi square value of greater than 9.488 will confirm that the frequencies found in the two populations are significantly different.

CHAPTER 4: RESULTS

Introduction

The focus of this study was on followership preferences for gender-based leadership behavioral characteristics in the virtual environment. The context for this study was Cooperative Extension, a national, non-formal, educational outreach mechanism of land-grant universities which provides research-based education and information outside of the traditional classroom. Cooperative Extension was selected based on its increasing use of virtual groups to identify needs, and plan, conduct, and evaluate programs. Also, the researcher had one-time access to Cooperative Extension professionals through a request made by the Director of Colorado Cooperative Extension to his peers in the western states.

The first research question in the study asked whether there was a relationship between followership type (as identified by Kelley, 1992) by gender and preference for gender-based leadership behavioral characteristics in the virtual environment. Based on an extensive literature review, no proposition could be stated about this question, leading to a null hypothesis: *In the virtual environment, there is no relationship between any of the five followership types by gender and preference for gender-based leadership behavioral characteristics.*

The second research question asked whether, in the virtual environment, the preferred gender-based leadership behavioral characteristics are identified primarily as

male or female. Again, based on the literature review, no proposition was possible, resulting in the null hypothesis: *There is no difference in followers preferred gender-based leadership behavioral characteristics as identified as predominantly male or female when considered by followership type and gender.*

Two instruments were used in this study. The *Followership Questionnaire* developed by Dr. Robert Kelley (Kelley, 1992) was used to initially identify respondents by followership type. Reliability and content validity of this instrument was established by previous research with the instrument (Caesar, 1998). The *Leadership Behavioral Characteristics Questionnaire*, designed by the researcher was used by respondents to select their preferred gender-based leadership behavioral characteristics. In a test/retest situation with a group of Extension professionals, computing the Pearson product-moment correlation coefficient resulted in a correlation (r) of .877. As stated previously, a correlation coefficient of .6 and over for non-commercially tested instruments is considered good. Content validity was established by having a panel of 4 experts review the behavioral characteristics questionnaire and identify each question as a predominantly male or female behavioral characteristic. Two questions which generated inconsistent results were re-worded to assure content validity. The remaining questions all resulted in consistent results from the four experts and were used as originally written.

Respondents in this study were also asked a series of 6 demographic questions which were used in the analysis. These questions covered the respondent's gender, state of employment, job site as on- or off-campus, age as identified by generation, the dominant location of the respondent's clientele, and the number of years virtual work had been a part of the respondent's job. This chapter explores the results of the study.

Results

Permission for access to Cooperative Extension professionals was granted for a *one-time* approach to these individuals through a request by the Colorado Director to his colleagues in the western states. A follow-up request for participation was impossible due to the political environment and unwillingness on the part of the Director to strain his relationship with his peers. A total of 93 individuals chose to respond to the one-time request for information. Thus, a concern associated with these results is the number of returns. However, there was still sufficient data to provide insight into the issues explored. Of consideration is the degree to which generalizability beyond the sample population is possible. As previously stated (see Chapter 3), the nature of Cooperative Extension organizations also limits the potential to generalize beyond this environment.

Description of the Respondents

As indicated previously, eight of the thirteen states had respondents. Table 9 summarizes respondents by state compared to the potential FTE as identified by USDA. Of the 93 responses, 52 (55.9%) were female and 41 or 44.1% were male (see Table 10). More than three quarters of the respondents were field-based (76.3%), while 23.74% were campus-based (see Table 11). The majority of the respondents (72 or 77.4%) were of the Boomer generation that was born between 1944 and 1960. Only five (5.4%) were from the WWII generation (1922-1943) and 16 (17.2%) were from Generation X (1961-1980). No respondents were from the Millennial generation (1980+) (see Table 12). More than three quarters of the respondents identified the location of their clientele as either rural or urban. Only 22% listed suburban locations for their primary clientele (see Table 13).

Table 9

Distribution of Respondents by State

State	# of Respondents	FTE Possible
Arizona	5	111.8
California	13	377.8
Colorado	31	221.6
Hawaii	11	83.4
Montana	2	115.7
Nevada	7	67.4
New Mexico	9	174.9
Oregon	15	281
Total	93	1433.6

Table 10

Gender of Respondents

Gender	Number	Frequency (%)
Male	41	44.09
Female	52	55.91
TOTAL	93	100.00

Table 11

Work Location of Respondents

Work Location	Number	Frequency (%)
On Campus	22	23.66
Field-based	71	76.34
TOTAL	93	100.00

Table 12

Generation of Respondents

Generation	Number	Frequency (%)
WWII	5	5.38
Boomer	72	77.42
Gen X	16	17.20
Millennial	0	0
TOTAL	93	100.00

Table 13

Location of Primary Clientele

Location of Clientele	Number	Frequency (%)
Rural	35	37.63
Suburban	20	21.51
Urban	38	40.86
TOTAL	93	100.00

The majority of respondents indicated that the virtual environment had been a part of their job more than 4 years. Forty (43.0%) reported working virtually for more than seven years. Thirty-three (35.5%) had worked in the virtual environment for four to seven years, and only 20 (21.5%) had worked virtually less than 5 years (see Table 14).

Table 14

Years of Virtual Work as a Part of Job

Years	Number	Frequency (%)
Less than 4	20	21.51
4-7	33	35.48
More than 7	40	43.01
TOTAL	93	100.00

The Followership Questionnaire

Results on the *Followership Questionnaire* were initially used to type all respondents. In order to determine the distribution of followers in the sample population, the *Followership Questionnaire* was scored according to the key established by Kelley in Table 15.

Table 15

Followership Style Scoring

Independent Thinking Items	SCORING	Active Engagement Items	SCORING
Question 1.	_____	Question 2.	_____
5.	_____	3.	_____
11.	_____	4.	_____
12.	_____	6.	_____
14.	_____	7.	_____
16.	_____	8.	_____
17.	_____	9.	_____
18.	_____	10.	_____
19.	_____	13.	_____
29.	_____	15.	_____
TOTAL SCORE.	_____	TOTAL SCORE	_____

Each respondent's scores were tallied according to the summary. This tally resulted in scores for independent thinking and active engagement for each individual. Each respondent's scores were then converted to "high," "low," or "mid" on each characteristic. Scores less than 20 were considered "low," scores higher than 40 were considered "high," and scores between 20 and 40 were considered "mid." These scores were then plotted according to Kelley's grid (Figure 2).

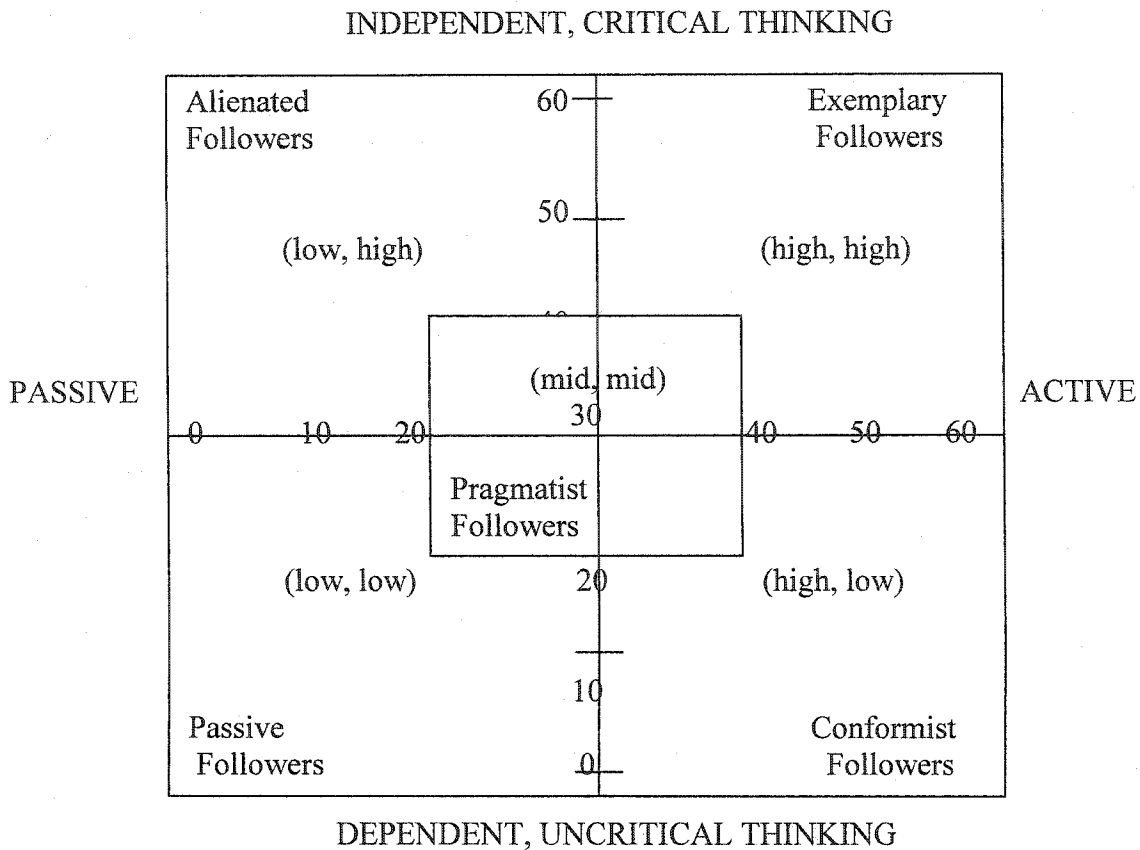


Figure 4. Followership styles – Scoring distribution.

The results (Table 16) identified 92 of the 93 respondents as “exemplary” followers and only one as “borderline pragmatic” (scoring 38 on critical thinking and 30 on engagement). There were no alienated, conformist or passive followers in the group of respondents.

According to Kelley (see Chapter 3, p. 92), the distribution of “Exemplary” followers should be somewhere between 0 and 35% in typical groups, while pragmatic followers should comprise 25-35% of the group. The Cooperative Extension group of respondents clearly did not fit the followership distribution as theorized by Kelley. Given these results on the *Followership Questionnaire*, exploring preference for gender-based behavioral leadership characteristics by followership type was not feasible.

Table 16

Distribution of Followers

Followership Type	Number	Frequency (%)	Expected Freq. (%)
Alienated - high, low	0	0	15-25
Passive - low, low	0	0	5-10
Conformist - high, low	0	0	20-30
Exemplary - high, high	92	98.92	0-35
Pragmatic - mid, mid	1	1.08	25-35
TOTAL	93	100.00	100

The Leadership Behavioral Characteristics Questionnaire

Each item on the *Leadership Behavioral Characteristics Questionnaire* was identified as primarily a male or female behavior based on empirical evidence cited in the literature review in Chapter 2 and confirmed by the content validity check done with four experts (see Table 17).

Table 17

Key for Analysis of Leadership Behavioral Characteristics Questionnaire

Questions identifying female behaviors	1,3,4,5,8,11,14,16
Questions identifying male behaviors	2,6,7,9,10,12,13,15

In order to determine whether a preference existed for male or female behavioral characteristics, respondents' scoring was reversed for those statements on the *Leadership Behavioral Characteristics Questionnaire* identified as typically male behavior. A mean

of all scores was then calculated for each respondent. This mean of all 16 item's scores was then used as a measure of preference for female leadership behaviors. A high mean would indicate a distinct preference for female leadership behaviors. Conversely, a low mean would indicate a low preference for female leadership behaviors, or a preference for male leadership behaviors.

Demographic Characteristics and Preference for Female Leadership Behaviors

In order to determine whether the gender of the follower was related to a preference for female leadership behaviors, a comparison of the means was initially conducted. No significant difference was found between the means of male and female followers (see Table 18).

An analysis of variance was conducted using preference for female leadership behaviors as the dependent variable and gender as the independent variable. An F Value of .60 and a significance level of .441, meaning that that chance was responsible for the difference between the male and female results 44.1% of the time ($Pr > F$), further

Table 18

Comparison of Gender and Preference for Female Leadership

Gender	Number	Mean	Std. Dev.
Female	52	3.82	.309
Male	41	3.78	.290

supported the null hypothesis, that there is no difference in preference for gender-based leadership behavioral characteristics by gender. In other words, the level of confidence

that a difference by gender in preference for gender-based leadership behavioral characteristics exists was only 56%.

The results of a five factor analysis of covariance on main effects only (Table 19), found that adjusting for differences in the covariates of job site, generation, location of clientele, and years of virtual work, did not significantly change preference for gender-based leadership behavioral characteristics in the virtual environment. None of the F values were statistically significant at the .05 level. In other words, holding constant all the other demographic variables did not change the lack of significance found between preference for gender-based leadership behavioral characteristics and each individual demographic variable. While these findings do not appear to add to our understanding of the null hypothesis, they do add to the general understanding of leadership in the virtual environment.

Table 19

Female Leadership by Demographic Characteristic

Demographic Characteristic	DF	Sum of Squares	Mean Square	F Value	Sig. (Pr>F).
Gender	1	.089	.090	1.01	.317
Location of Work	1	.044	.044	0.50	.484
Generation	2	.357	.178	2.02	.139
Clientele Location	2	.229	.114	1.29	.280
Time in Virtual Work	2	.218	.109	1.24	.296

Further Results

As a further test of reliability of the *Leadership Behavioral Characteristics Questionnaire*, a Cronbach's alpha correlation coefficient was calculated based on the mean scores for all 16 questions. This test resulted in a correlation coefficient of only .18. In an attempt to determine why such a low correlation coefficient resulted from this test, a factor analysis of the 16 questions on the test revealed a *single* leadership factor which accounted for almost 40 % of the variance (6.33 out of a possible 16), rather than two gender-related dimensions; and a *negative* correlation on that factor for each of the statements which had been previously identified as predominantly male behavior (where the scoring had been reversed) (Table 20). Again, while these results do not contribute to further understanding of either of the null hypotheses, they do provide additional data on leadership in the virtual environment and suggest a strong argument for a *single* leadership dimension (rather than two gender-related dimensions) which explains almost 40% of the variance.

A repeat of the factor analysis omitting the reversal of scores for those items identified as primarily male leadership behaviors resulted in all loadings being positive. This result also supports that leadership behaviors have a single dimension, not a gender-related one. Repeating the Cronbach's alpha omitting the reversal of the male behavior score resulted in a correlation coefficient of .866. It appears that an ancillary outcome of this study suggests that while the 16 questions were initially based on behavioral characteristics identified through the review of literature as predominantly male or female leadership behaviors, the respondents identified the behaviors as having only one dimension - leadership or lack thereof. The results of this study indicate that this sample

of Cooperative Extension professionals did not identify leadership behavioral characteristics as predominantly male or female.

Table 20

Factor Analysis on Leadership Behavioral Characteristics Questionnaire

Factor Pattern				
Question	Factor 1	Factor 2	Factor 3	Factor 4
1	0.726	0.212	-0.252	0.077
2	-0.539	0.248	0.047	0.222
3	0.767	0.129	-0.144	-0.042
4	0.851	0.162	-0.079	0.131
5	0.707	0.137	0.231	0.277
6	-0.330	0.475	0.444	-0.020
7	-0.548	-0.119	0.278	-0.352
8	0.782	0.272	-0.175	-0.096
9	-0.478	0.048	0.307	0.721
10	-0.203	-0.453	-0.579	0.418
11	0.838	0.154	-0.013	0.010
12	-0.656	0.464	-0.192	0.001
13	-0.590	0.460	-0.240	-0.066
14	0.674	-0.025	0.480	0.137
15	-0.023	0.771	-0.185	0.066
16	0.688	-0.079	0.150	-0.066
Var. Explained	6.328	1.737	1.263	1.011

Based on the above results, the analysis of variance was repeated on the recalculated means for leadership as the dependent variable and gender as the independent variable (with scores on the male behaviors questions not reversed). This test again did not result in a statistically significant F value (1.15). In this case the probability that the difference in results by gender was attributable to chance was 28.7% (significance level of .287 and of a confidence level of only 71.3%). These results provide strong evidence that there is no difference by gender in preference for leadership characteristics in the virtual environment.

The analysis of covariance for the other demographic characteristics was also recalculated (Table 21), and again, none of the F values were significant at the .05 level.

Table 21

Analysis of Covariance by Demographic Characteristic

Demographic Characteristic	DF	Sum of Squares	Mean Square	F Value	Sig. (Pr>F)
Gender	1	.472	.472	1.23	.271
Location of Work	1	.923	.923	2.40	.125
Generation	2	.403	.202	0.52	.594
Clientele Location	2	.064	.032	0.08	.921
Time in Virtual Work	2	1.349	.675	1.75	.179

Using a single factor for leadership (rather than male and female dimensions) does not alter the acceptance of the null hypothesis that there is no difference in preference for leadership characteristics by gender (or any other of the demographic characteristics).

CHAPTER 5: DISCUSSION

Introduction

The purpose of this study was to examine followership preferences for gender-based leadership behavioral characteristics in the virtual environment. The first phase of the research process was development of the problem statement based on an initial review of the literature on leadership in the virtual environment, followed by the development of the research questions to address the problem statement. The problem statement which emerged was:

To determine from a followership perspective whether male or female leadership behavioral characteristics are preferred in virtual teams in a non-formal educational organization.

An anticipated ancillary outcome would be insight into what role gender plays in follower preferences for leadership behavior in the virtual environment.

Research questions for the study were:

1. In the virtual environment, is there a relationship between any of the five followership types by gender and preference for gender-based leadership behavioral characteristics?
2. In the virtual environment, are preferred gender-based leadership behavioral characteristics by followership type by gender identified as predominantly male or female?

A thorough literature review encompassing leadership, followership, and the virtual environment, found no clear answer to either of the research questions. While some empirical evidence existed, there was no clear support for a proposition that a virtual environment differs from a face-to-face environment in follower preferences for leadership behaviors. Consequently no proposition could be stated as to whether those preferences might be for specific leadership behaviors which could be identified as characteristic of either male or female leadership. As a result of the literature review, only null hypotheses could be stated:

1. In the virtual environment, there is no relationship between any of the five followership types by gender and preference for gender-based leadership behavioral characteristics.
2. There will be no difference in followers' preferred gender-based leadership behavioral characteristics, as identified as predominantly male or female, when considered by followership type and gender.

These hypotheses were tested in this study.

Context and Findings

Through an on-line survey of professionals employed by Cooperative Extension in the western United States, original data was gathered on follower characteristics and preferences for leadership behavioral characteristics. Ninety-three respondents completed the on-line survey. While limited in number of responses, the data provided by these responses provides insight on the hypotheses and research questions posed.

Contrary to the followership distribution suggested by Kelley (1993), all but one of the Extension employees who chose to respond to the on-line survey fell in only one of

the five followership types - the exemplary follower. Clearly, the distribution of respondents in this study did not fit the distribution suggested by Kelley. The question that can be asked is - why? Since the study was strictly voluntary, did only the exemplary followers choose to participate? Or, do only exemplary followers self-select Extension as a career choice? Or, does Extension select only exemplary followers as employees? Finally, would the results have been different if the questions were posed about the face-to-face, rather than virtual environment. A look at the characteristics of exemplary employees, as suggested by Kelly may provide a clue to some of the answers, and, as such, may provide a focus for further research.

As stated in Chapter 2, exemplary followers are risk takers, self-starters, and independent problem solvers who can succeed without strong leadership. They add value to an organization in two very important ways: they do a great job on critical path activities and they nurture and leverage a web of organizational interrelationships. Kelley also suggested that their skills fell in three broad categories: job skills, including focus and commitment, competence in task activities, and initiative; organizational skills, including serving as team members and forming networks with leaders and other organizational systems; and a values component, a courageous component that guides their organizational relationships and job activities (Kelley, 1992). It may be that Extension does attempt to hire exemplary followers. Many of the characteristics identified by Kelley are found on the position descriptions for Extension workers. Kelley's characteristics of exemplary followers also suggest that these individuals might be most likely to respond to an on-line request for help and information. Further study may provide more insight into these questions.

Since only one followership type emerged from the data, exploring preference for gender-based behavioral characteristics by followership type was not possible. However, within the single followership type, it was possible to explore preference for gender-based behavioral characteristics by gender, as well as by the other demographic characteristics. This study found no significant relationship between any of the demographic characteristics and a preference for male or female behavioral characteristics in the virtual environment.

An interesting pattern in the data did emerge which required further analysis. When a Cronbach's alpha was calculated on the *Leadership Behavioral Characteristics Questionnaire*, a very low correlation coefficient resulted (see discussion in Chapter 4). Further factor analysis suggested that the test, initially designed to measure preference for male or female leadership behaviors, had only one strong dimension which accounted for almost 40% of the variance in responses. In addition, the analysis indicated a negative correlation with all the questions which were identified by score reversal as male behaviors. When the scoring of those questions was un-reversed, the re-calculated correlation increased to .866. These results provide evidence that leadership behaviors are not identified by these respondents as two dimensional, that is, gender-related. Rather the results of this study suggest that leadership as a characteristic has one major dimension not identified by gender.

The literature on followership preferences for leadership in the virtual environment provided no empirical evidence to suggest that followership type by gender would prefer specific gender-based leadership behavioral characteristics. In fact, no studies were found that explored gender-based leadership behavioral characteristics in the

virtual environment. Nor were any studies found which explored followership types in the virtual environment. This lack of empirical evidence lead to the development of the two null hypotheses considered in this study. This study, while only able to consider one followership type, also found no preference by gender for specific gender-based leadership behavioral characteristics in the “exemplary” follower type. Thus, the null hypothesis, that *in the virtual environment, there is no relationship between any of the five followership types by gender and preference for gender-based leadership behavioral characteristics*, was supported in part by the results of this study. Likewise, the null hypotheses that *there will be no difference in followers preferred gender-based leadership behavioral characteristics, as identified as predominantly male or female, when considered by followership type and gender*, was also supported by the results of this study.

A matrix may be helpful to summarize the findings and comparisons to relevant current research. See Table 22.

Clearly, the lack of any related research, especially in the virtual environment, suggests that further examination of followership type and leadership behaviors would be valuable.

Table 22

Comparison of Findings to Literature Review

Organization Finding	Virtual Environment		Face-to-Face Environment	
	Similar to Extension	Not Similar	Similar to Extension	Not Similar
No relationship between followership type by gender and preference for gender-based leadership behavioral characteristics.	No evidence	No evidence	No evidence	Colangelo (2000) and Caesar (1998) both found no relationship between follower-ship type and leadership behaviors. However, neither considered gender of the follower in their work.
No difference between male and female leadership behavioral characteristics.	No evidence	No evidence	No evidence	Chapman (1975) Dobbins & Platz (1986) Eagly & Johnson (1990) Bass, Avolio & Atwater (1996) Powell (1997)
Distribution of followers not according to Kelley's model.	No evidence	No evidence	No evidence	Caesar (1998) found distribution of followership type to be different than Kelley suggested.

Conclusions

Based on the results of this study, one must question Kelley's theory of followership type distribution in specific organizational settings. Consistent with these findings Caesar (1998), in his study of employees in Canadian banks, also found large differences in the distribution of followership types than are suggested in the theory. One might question whether certain types of organizations select certain types of followers who have proven to be successful in the environment provided by the organization.

Conversely, it may be that certain followership types proactively self-select employment in organizations that fit their followership style, or, retroactively leave organizations that fail to meet expectations and needs of their particular followership type. The literature review sheds little light on these questions. No references to research on pro-active selection of congruent organizations by followers, or followers by organizations, was found. Yukl (2002) does suggest that followers attribute characteristics to leadership, but is silent on whether this attribution happens before employment, or whether it may lead to movement out of an organization that does not 'fit' the followers view of appropriate leadership. Chaleff (1995) describes the courageous follower as having the courage to leave, but provides no research to indicate whether, or how often this happens.

Finally, no research was found on followership specific to the virtual environment. Does the virtual environment change the distribution of followership types? Do only certain types of followers choose to work in the virtual environment? How does the virtual environment change who agrees to be a follower? All of these questions require more investigation.

In this study where respondents self-selected to participate, one might also question whether only one type of follower chose to answer the on-line survey request. If a random sample of Extension employees from throughout the western states had been possible, would a very different pattern of followership types have emerged? Kelley (1992) suggests that the differing types of followers behave in very different ways. Thus alienated and passive followers might be expected to ignore the request for input. But conformist followers, according to Kelley, accept tasks easily and gladly and might be

expected to comply with a request for input. Only more inquiry will begin to answer these questions.

Because respondents were asked to complete the *Leadership Behavioral Characteristics Questionnaire* from a virtual work perspective, we can infer that in the virtual environment, based on this study, there is no preference for specific gender-based leadership behavioral characteristics. In fact, the results of this study would indicate that followers fail to recognize leadership behavioral characteristics as gender related (see discussion in Chapter 4). The contradicting evidence found in the literature review regarding differences in male and female leadership behaviors (see discussion in Chapter 2) seems to be confirmed in this study. The indication of a strong one-dimensional leadership factor (see Table 20, p. 106) suggests that leadership behavioral characteristics in the virtual environment are seen as non-gender related.

Finally, this study indicates that in the virtual environment, none of the demographic characteristics identified in the study: gender, work site, generation, location of clientele, or years of virtual work are significantly related to preference for gender-based leadership behavioral characteristics. Based on this study, it appears that working virtually, the followers' gender, work site, age, clientele, or years of virtual work have no effect on their preference for specific gender-based leadership behavioral characteristics (see discussion in Chapter 4). This finding supports the limited amount of empirical evidence which suggests that age and years in the work do not significantly impact preferences for specific gender-based leadership behaviors (see Chapter 2, page 42). Controlling for work site, generation, location of clientele, and years of virtual work in this study did not affect preference for gender-based leadership behavioral

characteristics in the virtual environment (see Table 21, page 107). Again, whether these findings would hold in the face-to-face environment requires further study.

Implications

The results of this study provide implications for both theory and practice around followership and gender-based leadership behaviors in the virtual environment, as well as several opportunities for further research in each of those areas. The issue of followership types within specific organizational types could be explored to further test Kelley's (1992) theory. Exploration of whether organizations select for specific followership types or specific followership types self-select specific types of organizations prior to, or post employment, would also yield additional information related to followership theory and provide additional criteria on which organizations might assess potential employees.

Further examination of gender-based leadership behavioral characteristics might contribute additional understanding to the question of whether leadership behavioral characteristics do vary by gender. Leadership theory, as well as practice, could benefit from evidence of whether specific leadership behaviors are gender-related.

It is interesting to note that leadership theory with its origins in trait theory began by trying to isolate innate human characteristics which would help to explain leadership ability. However, empirical research on the trait theory was inconclusive and led to a behavioral rather than genetic approach to leadership. With the emphasis on gender-based leadership behavioral characteristics, one could argue that we have come full circle, back to inquiry into the genetic underpinnings of leadership. If, in fact, leadership behaviors do differ by gender, is it because of the genetic differences between males and females or the

difference in socialization that males and females experience. In other words, are the differences genetically inherent, or are they learned behaviors?

The results of this study, however, would suggest that followers in a virtual environment do not identify leadership behavioral characteristics as gender-related, but rather as either demonstrating leadership or not.

Comparisons of leadership in the virtual versus face-to-face environment would add to the field of leadership theory and provide valuable information for organizations, such as Cooperative Extension, that are moving toward more and more virtual work. What is effective leadership in the virtual environment? What specific behavioral characteristics enhance or undermine leadership efforts? Are there specific leadership behaviors which are absolutely necessary for successful leadership in the virtual environment? All of these questions provide ample opportunity for further study.

Evaluation of the Study and Final Comments

It is unfortunate that this study was constrained by the limitation that only one request could be made for responses. This limitation likely affected the number of responses received. A research design which would allow for follow-up with non-responders would have been preferable. In addition, a design which included a random sample of Extension employees throughout the western states would have provided stronger evidence as to the followership type distribution within the organization. A comparison between groups of employees involved in virtual work assignments and face-to-face groups would more clearly indicate the differences between the two environments. Finally, a more definitive instrument of gender-related leadership behaviors might have resulted in differing results than were found in this study.

However, several interesting results were worthy of discussion. The skewed distribution of followership types provided an interesting phenomenon to explore and provides fodder for further exploration. Also, the finding of only one overwhelming leadership dimension, rather than two-dimensional, gender-related, scales is equally interesting and deserving of further study.

Finally, this study and the underlying literature review beg the question - what hypotheses are possible for future testing. Again, a matrix may provide a way to visualize the suggested hypotheses worth testing in future studies (see Table 23). Based on this study and the literature review, one might conclude that in most organizations, whether in a virtual or face-to-face environment, there will be no recognition of a difference in male and female leadership behavioral characteristics, and, consequently, followers (by type and gender) will have no preference for gender-based leadership

Table 23

Suggested Hypotheses for Further Testing

Organization Finding	Virtual Environment		Face-to-Face Environment	
	Similar to Extension	Not Similar	Similar to Extension	Not Similar
No relationship between followership type by gender and preference for gender-based leadership behavioral characteristics.	In organizations similar to Extension, where male and female workers are almost equally present in both leader and follower roles, and virtual work occurs on a regular basis, there will be no difference in followers' preference (by gender) for gender-based leadership behavioral characteristics.	Organizations which have a high distribution of one gender of workers, and/or where leadership is held primarily by one gender, are more likely to demonstrate a relationship between followership preferences (by type and gender) for gender-based leadership behavioral characteristics. Followers in organizations in which virtual work is less prevalent or just beginning may also demonstrate different preferences for gender-based leadership behavioral characteristics.	Face-to-face environments will demonstrate less difference by followership type and gender and preference for gender-based leadership behavioral characteristics. Organizations with more homogeneous employees (i.e. followership types) will demonstrate no significant difference in preference for gender-based leadership behavioral characteristics.	Whether in the virtual environment or face-to-face, organizations which have a high distribution of one gender of workers, and/or where leadership is held primarily by one gender, are more likely to demonstrate a relationship between followership preferences (by type and gender) for gender-based leadership behavioral characteristics.
No difference between male and female leadership behavioral characteristics.	In non-formal educational organizations like Extension, with almost equal representation of both genders, leadership behavioral characteristics will not be identified by followers as gender related.	As more females continue to move into leadership roles in all organizations, differences in male and female leadership behavioral characteristics will be identified less by followers.	In non-formal educational organizations like Extension, with almost equal representation of both genders, leadership behavioral characteristics will not be identified by followers as gender related.	As more females continue to move into leadership roles in all organizations, differences in male and female leadership behavioral characteristics will be identified less by followers.
Distribution of followers not according to Kelley's model.	In narrowly focused organizations such as Extension, followership distribution is likely to be narrower than Kelley suggests.	In broader-based industries with wider diversity of job responsibilities and requirements, the followership distribution suggested by Kelley is more likely to hold.	In narrowly focused organizations such as Extension, followership distribution is likely to be narrower than Kelley suggests whether the environment is virtual or face-to face.	In broader-based industries with wider diversity of job responsibilities and requirements, the followership distribution suggested by Kelley is more likely to hold.

behavioral characteristics. An exception may be in organizations dominated by one gender in leadership and/or followership roles, which could impact how followers (by gender) view leadership behavioral characteristics. Further research will provide additional insight into these suggested hypotheses.

Finally, the results of this study provide additional evidence on the controversial issue of whether male and female leaders demonstrate significantly different leadership behaviors based solely on their gender. As acknowledged in the literature review (see Chapter 2), empirical evidence to date has been mixed; some researchers have found differences and others have not. This study would support the hypothesis that there is no difference in the leadership behavioral characteristics of males and females, at least as perceived by followers in the virtual environment.

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APPENDICES

APPENDIX A
HUMAN RESEARCH PROJECT APPROVAL

MEMORANDUM

TO: Gary Geroy, School of Education, 1588

FROM: Janell A. Meldrem, Administrator for the
Human Research Committee

SUBJECT: **PROJECT APPROVAL**
Title: Followership Preferences for Gender-Based Leadership Behavioral
Characteristics
Protocol No.: 03-113H
Funding Agency: N/A

DATE: July 1, 2003

I am pleased to inform you that the above-referenced project was approved by the Human Research Committee on June 18, 2003 for the period June 18, 2003 to May 5, 2004. Because of the nature of this research, it will not be necessary to obtain a signed consent form. However, all subjects must receive a copy of the approved cover letter printed on department letterhead. The requirement of documentation of a consent form is waived under § __.117 (c) (2). **Approval is for 1980 participants.**

A status report of this project will be required within a 12-month period from the date of approval. You will be sent a reminder approximately two months before the protocol expires. The Principal Investigator will report on the numbers of subjects who have participated this year and project-to-date, about problems encountered, and provide a verifying copy of the consent form or cover letter used. The necessary form (H-101) is available from the Regulatory Compliance web page (see below). Should the protocol not be renewed before expiration, all activities must cease until the protocol has been re-reviewed.

It is the responsibility of the investigator to immediately inform the Committee of any serious complications, unexpected risks, or injuries resulting from this research. It is also the investigator's responsibility to notify the Committee of any changes in experimental design, participant population, or consent procedures or documents. This can be done with a memo which completely describes the changes and their consequences (new consent form or cover letter, or altered survey instrument, for example). Students serving as Co-Principal Investigators may not alter projects without first obtaining PI approval. The PI is ultimately responsible for the conduct of the project.

This approval is issued under Colorado State University's OHRP Federal Wide Assurance 00000647 issued July 1, 2001. If approval did not accompany a proposal when it was submitted to a sponsor, it is the researcher's responsibility to provide the sponsor with the approval notice.

Please direct any questions about the Committee's action on this project to me for routing to the Committee. Additional information is available from the Regulatory Compliance web site at www.research.colostate.edu/regulatory/

Attachment
cc: Judith Barth/Attachment

APPENDIX B

PERMISSION FROM ROBERT E. KELLY TO USE
FOLLOWERSHIP QUESTIONNAIRE

Subject: Permission from Robert Kelley

Date: Thu, 03 Apr 2003 14:49:32 -0500

From: Robert Kelley <vze2q7mx@verizon.net>

Reply-To: Robert Kelley <rk2n@andrew.cmu.edu>

To: jbarth@coop.ext.colostate.edu

Judy

As we discussed on the phone, you have my permission to use my Followership Questionnaire (also know as the Personal Style Questionnaire) from my book "The Power of Followership".

This is a shorter version (20 items adapted from the original 40 item questionnaire).

My policy is that academic researchers can use the instrument with out cost. Should you want to use it for any other purpose, you need to contact me again. Also, please send me a copy of your results when you have them.

As we discussed, this instrument was developed for exploratory purposes.

If you need anything else, please let me know. Best wishes on your research. I look forward to meeting you in Fort Collins on May 2.

Robert Kelley

--On Thursday, March 13, 2003 3:22 PM -0500 jbarth@coop.ext.colostate.edu wrote:

>
> kelleyideas's website elicited this lead today:
> Name: Judith Barth
> Title: Human Resources Coordinator
> Company: Colorado State University Cooperative Extension
> Address: 1 Administration Bldg.
> City: Fort Collins
> State: CO
> Zip: 80526-4040
> Telephone: 970-491-6345
> Email: jbarth@coop.ext.colostate.edu
> Occupation: Human Resources
> Please contact me about:

Speeches

> Comments: Dr. Kelley,
> I wrote last week about my graduate research. I am interested in using
> the Followership Questionnaire in research for my dissertation. I would
> like your permission to do so. I would also appreciate any information
> you have regarding its reliability and validity. I would appreciate
> hearing from you. You can reach me by e-mail or phone. Thanks so much.
> Judy Barth Congratulations on being an honor alumni from Colorado State!
>
>

Robert Kelley
kelley+@cmu.edu

APPENDIX C

LETTER OF REQUEST FROM COLORADO EXTENSION DIRECTOR
AND INVITATION TO PARTICIPATE

Subject: E-mail message

Date: Fri, 19 Sep 2003 11:53:24 -0600

From: Judy Barth <jbarth@coop.ext.colostate.edu>

To: Judith Ann Barth <jbarth@coop.ext.colostate.edu>

June 23, 2003

TO: Extension Directors in the Western Region
FROM: Milan A. Rewerts, Director
Colorado State University Cooperative Extension
RE: Research on the Virtual Environment

As Extension struggles with significant budget issues across the country, we look for new, more efficient ways to deliver our educational messages. One solution on which we increasingly rely is technology. In doing so, we make the assumption that working virtually (via e-mail, conference calls, on-line discussion groups, compressed and streaming video, webct) requires the same type of leadership and will bring us the same results as face-to-face interaction. However, research on this assumption and the use of technology and the virtual environment as a method of organizational work is sparse and narrowly focused. To my knowledge, there is no specific research on the use of the virtual environment in Extension work. Which brings me to the reason for this e-mail.

Judy Barth, Human Resources Coordinator for Colorado Cooperative Extension, is exploring leadership in the virtual environment for her doctoral research. The outcome of her research will be of benefit to Extension programs nationwide. I am asking for your help in reaching the Extension professionals in your state to invite them to become a part of this study. Following is the invitation to participate. I am asking you to forward this e-mail to your organizational bulletin board so that any Extension worker in your state who wants to participate will have that opportunity. Participation is accomplished by a link to a web site where the survey instruments reside. I want to assure you that all responses are strictly confidential and anonymous. Once a response is submitted, there is absolutely no identification that accompanies the response. Please read the cover letter for additional information. If you have other questions, I would be happy to talk with you about this research (970-491-6281), or you may contact Judy Barth directly at 970-491-6345 or jbarth@coop.ext.colostate.edu. If you are interested in receiving an executive summary of the results of this research, please let Judy know.

Thank you for your support of this valuable study. Milan Rewerts

TO: Extension Employees in the Western Region
RE: An Invitation to Participate in Research on the Virtual Environment

I am the Human Resources Coordinator for Colorado

Cooperative Extension, and a graduate student in the Human Resource Development program of the School of Education at Colorado State University. My doctoral study focuses on Extension groups in the western states which function in the virtual environment. Virtual work is accomplished through the use of conference calls, e-mail, on-line discussion groups, and compressed or streaming video.

The title of my study is "Followership Preferences for Gender-Based Leadership Behavioral Characteristics." I am exploring the relationship between followership type by gender (as established by Kelley, 1992) and preference for gender-based leadership behavioral characteristics. This study will use the results from two questionnaires completed by Extension employees in the western states to gain insights into those relationships.

If you have participated in a virtual group as a part of your Extension work (that is, work done via conference calls, an e-mail group, an on-line discussion group, or compressed or streaming video) you are being asked to take part in this study.

The surveys are being conducted via the web and will take approximately 10 minutes. You can be assured that your responses are completely anonymous. Each response will generate a text file e-mail message that will be sent to the researcher with no identifying information (IP address/e-mail address). The researcher does not have direct access to the web site.

If you would like to document your participation in this study, please send a separate e-mail to the researcher listed below and a hard copy of the Documentation of Consent Form and return envelope will be sent to you via the U. S. Postal Service. The documentation of consent has the same information as this cover letter, but asks for your signature to show that you consented to participate in this study.

There are no known risks to participating in this study. Benefits include the satisfaction of knowing you have contributed to research relevant to Extension work. If you have questions, you may reply using the contact information below. Although your participation is welcomed and needed, participation in this study is voluntary. By completing the surveys, you are agreeing to participate in the study. Questions about participants' rights may be directed to the Regulatory Compliance Office, c/o Celia Walker, at (970) 491-1563.

To participate, please click on the following link:

<http://soegrad.colostate.edu/students/barth>

Thank you for your interest and participation in this research. If you would like an executive summary of the results, please contact me by separate e-mail or by phone at the address/number below.

Professor Gary D. Geroy
Student
School of Education

Judith Barth, Graduate
Coop. Ext. Human Resources

(970) 491-5097

(970) 491-6345

jbarth@coop.ext.colostate.edu

APPENDIX D
WEBSITE SURVEY

SOE Graduate Programs

School of Education

FOLLOWERSHIP PREFERENCES FOR GENDER-BASED LEADERSHIP BEHAVIORAL CHARACTERISTICS IN THE VIRTUAL ENVIRONMENT

DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS

ALL ANSWERS ARE REQUIRED!

Please check one answer for each question:

1. Gender: Male Female

2. State:

- | | | | | |
|------------------------------|----------------------------------|----------------------------------|----------------------------------|------------------------------|
| <input type="radio"/> Alaska | <input type="radio"/> Arizona | <input type="radio"/> California | <input type="radio"/> Colorado | <input type="radio"/> Hawaii |
| <input type="radio"/> Idaho | <input type="radio"/> Montana | <input type="radio"/> Nevada | <input type="radio"/> New Mexico | <input type="radio"/> Oregon |
| <input type="radio"/> Utah | <input type="radio"/> Washington | <input type="radio"/> Wyoming | | |

3. Your job site: On Campus Field-Based

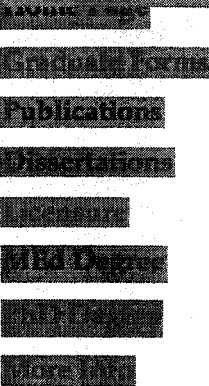
4. Generation:

- WWII (born 1922-1943)
- Boomer (born 1944-1960)
- Generation X (born 1961-1980)
- Millennial (born 1980-2000)

5. Dominant location of clientele (select only one):

- Rural (Population: 1-9,999)
- Suburban (Population: 10,000-49,999)
- Urban (Population: 50,000+)

6. How many years has virtual work (defined as work done via conference



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calls, e-mail groups, on-line discussion groups, or compressed or streaming video) been a part of your job?

- Less than 4 years 4 - 7 years More than 7 years

FOLLOWERSHIP QUESTIONNAIRE

For each statement, please use the scale to indicate the extent to which the statement describes you. Think of a specific but typical followership situation in Cooperative Extension and how you acted (where you were part of the group but not the leader).

7. Does your work help you fulfill some societal goal or personal dream that is important to you?

- 1 2 3 4 5 6
Rarely Occasionally Almost Always

8. Are your personal work goals aligned with the organization's priority goals?

- 1 2 3 4 5 6
Rarely Occasionally Almost Always

9. Are you highly committed to and energized by your work and organization, giving them your best ideas and performance?

- 1 2 3 4 5 6
Rarely Occasionally Almost Always

10. Does your enthusiasm also spread to and energize your co-workers?

- 1 2 3 4 5 6
Rarely Occasionally Almost Always

11. Instead of waiting for or merely accepting what the leader tells you, do you personally identify which organizational activities are most critical for achieving the organization's priority goals?

- 1 2 3 4 5 6
Rarely Occasionally Almost Always

12. Do you actively develop a distinctive competence in those critical activities so that you become more valuable to the leader and the organization?

- 1 2 3 4 5 6
Rarely Occasionally Almost Always

13. When starting a new job or assignment, do you promptly build a record of successes in tasks that are important to the leader?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

14. Can the leader give you a difficult assignment without the benefit of much supervision, knowing that you will meet your deadline with highest-quality work and that you will "fill in the cracks" if need be?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

15. Do you take the initiative to seek out and successfully complete assignments that go above and beyond your job?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

16. When you are not the leader of a group project, do you still contribute at a high level, often doing more than your share?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

17. Do you independently think up and champion new ideas that will contribute significantly to the leader's or the organization's goals?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

18. Do you try to solve the tough problems (technical or organizational), rather than look to the leader to do it for you?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

19. Do you help out other co-workers, making them look good, even when you don't get any credit?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

20. Do you help the leader or group see both the upside potential and the downside risks of ideas or plans, playing the devil's advocate if need be?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

21. Do you understand the leader's needs, goals, and constraints, and work hard to meet them?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

22. Do you actively and honestly own up to your strengths and weaknesses rather than put off evaluation?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

23. Do you make a habit of internally questioning the wisdom of the leader's decision rather than just doing what you are told?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

24. When the leader asks you to do something that runs contrary to your professional or personal preferences do you say "no" rather than "yes"?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

25. Do you act on your own ethical standards rather than the leader's or the group's standards?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

26. Do you assert your views on important issues, even though it might mean conflict with your group or reprisals from the leader?

- 1 2 3 4 5 6
 Rarely Occasionally Almost Always

LEADERSHIP BEHAVIORAL CHARACTERISTICS IN VIRTUAL GROUPS

Think of one or more virtual groups in which you have participated as a member (not leader). These groups may have met once or twice face-to-face, but accomplished the large majority of their work virtually, either through conference calls or on line, by e-mail, compressed or streaming video.

Following is a list of leadership behaviors frequently found in groups. Please review the list and, based on your experience in virtual groups, rate these behaviors from 0 to 6 in order of your preference for leadership behaviors in the virtual environment.

27. Is receptive to and encourages new ideas.

1 2 3 4 5 6
 Least Preferred Most Preferred

28. Directs the conversation.

1 2 3 4 5 6
 Least Preferred Most Preferred

29. Listens to all points of view.

1 2 3 4 5 6
 Least Preferred Most Preferred

30. Encourages effort of individual group members.

1 2 3 4 5 6
 Least Preferred Most Preferred

31. Demonstrates concern for individual members of the group, is sympathetic.

1 2 3 4 5 6
 Least Preferred Most Preferred

32. Pushes group to make decisions to complete task.

1 2 3 4 5 6
 Least Preferred Most Preferred

33. Shares information as they feel it is appropriate.

1 2 3 4 5 6
 Least Preferred Most Preferred

34. Encourages cooperation among group members.

1 2 3 4 5 6
 Least Preferred Most Preferred

35. Challenges ideas and individuals.

1 2 3 4 5 6
 Least Preferred Most Preferred

36. Takes a hands-off approach to group planning, decision making, and solutions.

1 2 3 4 5 6
 Least Preferred Most Preferred

37. Encourages everyone to participate.

1 2 3 4 5 6
 Least Preferred Most Preferred

38. Keeps group on task rather than focusing on individual members' concerns.

1 2 3 4 5 6

Least Preferred

Most Preferred

39. Establishes leadership role early in the group process.

1 2 3 4 5 6

Least Preferred

Most Preferred

40. Energizes others through concern for individuals.

1 2 3 4 5 6

Least Preferred

Most Preferred

41. Considers task accomplishment more important than consensus.

1 2 3 4 5 6

Least Preferred

Most Preferred

42. Shares information continuously and broadly.

1 2 3 4 5 6

Least Preferred

Most Preferred

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