

VOCATIONAL ADMINISTRATOR LEADERSHIP EFFECTIVENESS

AS A FUNCTION OF  
GENDER AND LEADERSHIP STYLE

by

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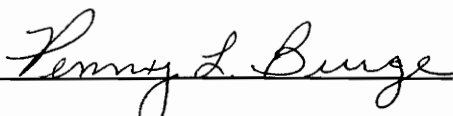
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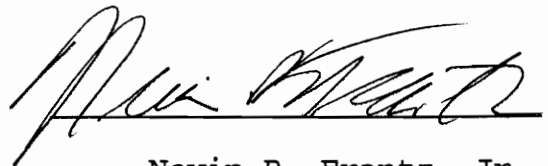
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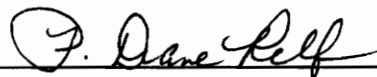
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by

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Committee Chairman: Curtis R. Finch

Educational Leadership and Policy Studies

(ABSTRACT)

The purpose of this research was (a) to identify the degree to which vocational administrators use perceived transformational, transactional, and laissez faire leadership styles, and (b) to determine if the leadership behaviors differed between male and female vocational administrators. The research also sought to determine which administrator characteristics could best predict perceived leadership effectiveness.

The target population consisted of vocational administrators in Virginia and vocational teachers (raters) selected by each administrator to participate. From an accessible population of 134 administrators, 101 administrator responses and 260 usable rater responses provided data for statistical analyses which included Pearson product-moment correlations, t-tests, and stepwise multiple regression.

Data were collected using the Multifactor Leadership Questionnaire (MLQ) Form 5X developed by Bass and Avolio (1991). Two parallel rating forms were used: self and

rater. Demographic information was collected from each administrator to provide a descriptive profile of the participating administrators.

Correlational analyses revealed that subscale items for transformational leadership (attributed charisma, idealized influence, inspirational leadership, intellectual stimulation, individualized consideration) were significantly related to perceived leadership effectiveness for both self-ratings and raters (others). Transactional subscales had lower correlations with leader effectiveness. A significant relationship was revealed between the transactional subscale items of contingent reward and management-by-exception-passive with effectiveness, with management-by-exception-passive having a negative correlation. The intercorrelations of subscale items were positive for both transformational and transactional leadership styles.

The *t*-test analyses for self-ratings revealed significant differences for intellectual stimulation and effectiveness between male and female administrators. The *t*-test analyses of rater (other) data revealed no significant differences by gender.

Multiple regression analysis provided the following prediction equations: (1) Self-perceived effectiveness was best predicted by the gender and transformational leadership variables, and (2) Rater-perceived effectiveness was best predicted by transformational leadership.

## DEDICATION

*This dissertation is dedicated to the memory of my parents, Hubert Sanders and Elizabeth Hill Daughtry, whose belief in and support of all their children provided the foundation for a desire to achieve, an appreciation of education, an ability to work hard, and a belief in God's love and strength in all circumstances.*

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Chapter One

Background

Historically, vocational educators and policy makers have listened to labor market needs and responded to changes in society by expanding vocational service areas or by targeting special populations. The current recognition "that we really have crossed over into an electronic/communications era -- a postindustrial era that will not permit us, without heavy penalty, to cling to outdated industrial styles of thinking and practice" (Wirth, 1992, p. 154) prompted policy makers to develop the 1990 reform initiative in vocational education. Passage of the Carl Perkins Vocational and Applied Technology Education Act of 1990 (Perkins II) initiated major changes in vocational education (Wirth, 1992).

Carl Perkins Vocational and Applied Technology Education Act  
of 1990 -- Public Law 101-392

Perkins II sought to improve academic as well as technical skills of vocational students. This legislation granted more power to local school divisions in expenditure of funds and emphasized a broad integration of academic and occupational education (Wirt, 1991; Wirth, 1992). For the first time, vocational educators were required to work collaboratively with academic educators in curriculum

integration. Vocational education has thus been moving from a narrow skill-based training focus to focusing on "all aspects of the industry" in which abilities learned may be useful in many occupations throughout a particular industry (Boesel & McFarland, 1994; Rosenstock, 1991). The substantive change from former legislation in which vocational educators had been bound by law to keep their funds and programs separate from academic programs is significant. Funding stipulations now require evidence of the integration of academic and vocational programs instead of separation.

Another dramatic change is the decentralization of funding. Under the basic grant, 75 per cent of the funds go directly to the local level (Wirt, 1991; Wirth, 1992). Local systems are responsible for developing plans that reflect the expenditure of funds and efforts for program improvement (Wirt, 1991). Students in selected technical areas are now able to progress from high school to postsecondary technical programs in a seamless manner as a result of the initiation of technical preparation (tech prep) programs. Local vocational education administrators have the ultimate responsibility for interpreting federal legislation and insuring its implementation.

#### Role of Local Vocational Administrator

The changes caused by Perkins II have had an impact on the role of the vocational administrator, particularly in the

areas of vocational programming and program administration. The local vocational administrator is charged with initiating the implementation of significant changes in curriculum and the development of new tech prep programs. Since the new legislation by-passes state administration, new responsibilities are placed on local administrators at implementation sites (Boesel & McFarland, 1994; Wirt, 1991). Consequently, leadership provided by local vocational administrators is crucial to the implementation of educational changes. Depending on the school division's particular organizational structure, a vocational administrator may be in a line or a staff position (Finch & McGough, 1982). A vocational administrator in a line position has authority over teachers and programs. However, many system wide vocational directors serve in staff positions. In a staff position, the administrator serves as coordinator or consultant to schools throughout the system, and has little or no authority over vocational teachers. In both of these positions, the vocational administrator's position within the organizational structure can influence what changes can actually occur in the schools' vocational programs (Finch & McGough, 1982).

### Effective Leadership

Faced with the challenges and opportunities for change, vocational administrators are charged with the responsibility, but not always the authority, of effectively

inspiring and leading other educators. Mitchell and Tucker (1992) suggest that the "thinking that lies behind effective leadership is complex and varied" (p. 30). They went on to suggest that educators have typically considered effective leaders to be those who "take charge and get things done" (p. 30). Another indicator of an effective leader, recognized especially during times of change, is the feeling expressed or the attitude followers have toward their leader (Bennis & Nanus, 1985; Yukl, 1981). Mitchell and Tucker (1992) stated that "leadership is less a matter of aggressive action than a way of thinking and feeling" (p.31). Fullan (1992) suggested that a collaborative work culture promotes the individuality of followers by respecting their contribution in setting the organizational vision. Thus, an effective leader in organizations experiencing change is one who initiates a vision and motivates followers to collectively develop and personally adopt the vision. According to Bennis and Nanus (1985), the leader "empowers [sic] others to translate intention into reality and sustain it" (p. 80).

To successfully motivate vocational educators to transform from traditional ways of skill-specific job preparation to a new broad-based integrative education, the leader must be effective in inspiring trust and respect. The success or effectiveness of any change in schools rests ultimately with the "front line workers" -- the teachers. However, the ways a leader initiates changes and involves

followers (teachers) in making changes affects the followers' attitudes toward leader and program effectiveness.

What distinguishes those who lead from those who do not lead? Some administrators are clearly more effective leaders than others. Moss, Finch, and Johansen (1991) stated that merely holding an administrative position does not make a person a leader. To clarify the idea of leadership, Moss, Lambrecht, Jensrud, and Finch (1994a, 1994b) have defined leadership as both a process and a property. The "process" involves determining when change is needed and influencing the group to change. The "property" of leadership is the follower's perception of the person as a leader. Bettin, Hunt, Macaulay, and Murphy (1992) explained their criteria for effective leadership was the way the leader behaves, the relationship the leader has with followers, and the priorities set for both themselves and the organization.

Perceptions of effective leadership vary according to the situation or organizational structure. Furthermore, the characteristics of those in administrative positions are quite diverse.

#### New Leaders

As the American workforce experiences significant shifts in demographic composition, leaders who emerge and are responsive to the shifting needs of educational reform and the organizational culture may not reflect the traditional image of a leader. Traditionally, formal administrative

positions in education have been dominated by men. While this situation still exists, women are beginning to assume more administrative roles as education restructures itself (Hill & Ragland, 1995; McGrath, 1992; Shakeshaft, 1987). The shift in educational administration reflects the change in the American workforce. According to Morrison (1992), the most significant factor relative to the emerging workforce is that "nearly all the growth in the workforce in this decade will come from people who are not white and male" (p. 14). Although, most of the workforce growth over the next ten years will include individuals other than the traditional white male, Morrison (1992) reported that the white male sector will still comprise approximately a third of the workforce. She expressed concern about whether upper level positions of leadership in organizations will reflect the growing diversity. Likewise, it is appropriate to question whether diversity will be reflected in the administrative leadership of educational organizations.

The projected diverse workforce and the increase of females in vocational administrative positions coincide with vocational education reform. For a long time the attributes associated with leading were command, control, and top down management (Moss et al., 1994a). According to McGrath (1992), many women who have achieved leadership positions have found it necessary to assume male-like characteristics. "They have become aggressive and competitive, wearing dark

suits, [and] consciously lowering their natural speaking voices" (McGrath, 1992, p. 64). McGrath (1992) goes on to state that "rather than lacking leadership skills, women have the right 'stuff'" (p. 65). Eagly, Darau, and Makhijani (1994) found that male and female leaders are equally effective, especially in educational settings.

#### Transformational versus Transactional Leadership

For vocational education to change in response to societal shifts and demands, vocational educational leadership must reflect these changes (Moss, Finch, & Johansen, 1991). Especially during times of change or reform, administrators who successfully lead others often possess attributes associated with transformational leadership (Finch, Faulkner, & Gregson, 1992-1993; Van Ebron & Burke, 1992). Bass and Avolio (1990) have defined this recent leadership paradigm as one in which "the need to promote change and to deal with resistance to it has, in turn, led to an emphasis on democratic, participative, relations-oriented, and considerate leadership" (p. 11). In transformational leadership, the leader establishes a vision and involves the followers in its development while considering their individual needs and providing opportunities for intellectual stimulation (Bass & Avolio, 1990, 1994; Tucker, Bass, & Daniel, 1992; Van Ebron & Burke, 1992) Transactional leadership, on the other hand, works more effectively when organizations (school systems) are

operating under more stable or settled conditions (Mitchell & Tucker, 1992; Van Ebron & Burke, 1992). Transactional leadership focuses on contingent reinforcement, including positive contingent reward and/or negative management-by-exception (Bass & Avolio, 1994).

### Conceptual Framework

Much of the current research on effective leadership and leaders has focused on transformational leadership. The type of leaders needed during times of reform and change seems to reflect the transformational leadership paradigm proposed by B. M. Bass (1985) in his theory of leadership. The transformational leadership idea was first mentioned by Downton (1973), furthered developed by J. M. Burns (1978), and was elaborated on by Bennis and Nanus (1985). In 1985, B.M. Bass "presented a formal theory of transformational leadership as well as models and measurements of its factors of leadership behavior" (Bass & Avolio, 1994, p. 2). Bass and Avolio (1990, 1994) have further developed transformational leadership assessment and have created a training program. Van Ebron and Burke (1992) and Burns (1978) stated that a leader relates to followers as either a transformational or transactional leader. However, research has indicated that leaders often use a combination of transactional and transformational leadership behaviors (Bass, 1985; Bass & Avolio, 1990; Moss et al., 1994b).

The transformational leadership model described by Bass and Avolio (1991) contained four behavioral components: idealized influence, inspirational leadership, intellectual stimulation, and individualized consideration. A fifth behavioral component, attributed charisma, is sometimes also included (Bass & Avolio, 1991). Bass and Avolio (1990) considered idealized influence and charisma as the same factor for a while, but have now made distinctions between these two factors. A transformational leader may employ one or more of the five behaviors. Persons who follow the transformational leader are willing to put the vision and goals of the organization as a whole above their own personal desires. The transformational leader encourages and nurtures the individual development of those in the organization in such a way that workers feel like, and actually are, a significant and valued part of the organization. The transformational leader listens to ideas and thoughts of individuals throughout the organization and maintains open lines of communication.

Transactional leadership as defined by Bass and Avolio (1994) is based on contingent reinforcement which is divided into contingent reward and management-by-exception. In contingent reward leadership, an exchange occurs between the leader and follower based on the performance of designated tasks. The contingent reward system of leadership or management has been more effective in motivating others to

higher levels of performance than management-by-exception, but not as effective as transformational leadership (Bass & Avolio, 1990, 1994). In management-by-exception, the leader only becomes involved when a problem arises, thereby supporting the status quo (Bass & Avolio, 1990). Bass and Avolio (1994) divided management-by-exception into active and passive categories, depending on whether the leader actively monitors followers' work or passively waits for mistakes to occur and then takes action.

A third form of "leadership" presented by Bass and Avolio (1990) is laissez-faire or non-leadership. According to Bass and Avolio (1994), the laissez-faire leader avoids leadership by not interacting with followers, and is, for this reason, ineffective. "Decisions are often delayed; feedback, rewards, and involvement are absent; and there is no attempt to motivate followers or to recognize and satisfy their needs" (Bass & Avolio, 1990, p. 20).

Transformational leaders create change while "transactional leaders tend to work within the system to preserve the status quo" (Silins, 1992, p. 319). The study of transformational and transactional leadership is quite extensive in the areas of business and the military, but limited in education and especially in vocational education. Moss, Finch, and Johansen (1991) have stated that vocational education is currently experiencing unstable times and must begin "its own transformation if it is to remain a viable

form of education in the new environment" (p. 7). Therefore, the proposed study will contribute to the body of knowledge about effective leadership of male and female vocational administrators in relation to the theory of transformational leadership (Bass, 1985, 1990; Bass & Avolio, 1990, 1994).

#### Purpose of the Study

This study addressed leadership effectiveness of vocational administrators as a function of gender and leadership style. Significant changes are occurring in vocational education that affect the organizational structure and in turn affect the vocational administrator's role. The transformational and transactional leadership models (Bass, 1985, 1990) have a number of implications for vocational education. According to theory, current and future changes are more effectively implemented when leaders exhibit transformational leadership behaviors (Finch, Gregson, & Faulkner, 1991; Van Ebron & Burke, 1992). The transformational leader promotes a culture of follower empowerment and collaboration among the group for the good of the group. As compared to transactional leadership, transformational leadership relates more strongly to followers' perceptions of leader effectiveness (Bass, 1990; Waldman, Bass, & Yammarino, 1990).

### Research Questions

In this study, leadership style was measured using the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1990). This questionnaire has two parallel forms: self-rating and other-rating (rater). The questionnaire assesses leadership style and organizational outcomes. The questionnaire is explained in detail in Chapter Two. Vocational administrators completed the self-rating form and vocational teachers completed the other-rating form, in seeking answers to the following research questions:

1. To what degree do vocational administrators use perceived transformational, transactional, and laissez-faire leadership behaviors?
- 2a. Which leadership style behaviors (e.g., charisma, intellectual stimulation, contingent reward, etc.) differ between male and female vocational administrators for self-perceived leadership effectiveness?
- 2b. Which leadership style behaviors differ between male and female vocational administrators for others-perceived leadership effectiveness?
- 3a. What administrator characteristics (e.g., leadership style, gender, position) can be used to predict self-perceived leadership effectiveness?
- 3b. What administrator characteristics can be used to predict others-perceived leadership effectiveness?

### Assumptions

The following assumptions were made for the purposes of this study:

1. The Multifactor Leadership Questionnaire Form 5X (MLQ-5X), self-rater form and other-rating (rater) form, identifies leadership styles and measures leadership effectiveness.
2. Other-ratings (raters) are accurate measures of the leader's effectiveness.
3. An administrator is not necessarily a leader.
4. Some vocational administrators are leaders.
5. New forms of leadership are required to facilitate educational reform.
6. Transformational leadership implies a desire for change. This study assumes change is desirable.

### Delimitations of the Study

The study included the following delimitations:

1. Subjects participating in the study consisted of vocational administrators in Virginia.
2. The study focused on transformational leadership as theorized by Bass (1985). Bass's theory recognizes transformational leadership, transactional leadership, and non-leadership (laissez-faire) as being different from each other and impacting effectiveness to different degrees.

3. The study results were aggregated and were not used to distinguish individual leadership styles.

#### Limitations of the Study

The study included the following limitations:

1. The vocational administrator population selected for this study limits its generalizability. Any inferences from the results should be made with caution.
2. The study was limited to nine leadership factors included in the MLQ Form 5X (Bass & Avolio, 1991): attributed charisma, idealized influence, inspirational leadership, intellectual stimulation, individualized consideration, contingent reward, management-by-exception-active, management-by-exception-passive, and laissez-faire.
3. The study was limited to the organizational outcome of effectiveness.

#### Definitions of Terms

The following terms are defined as they apply to this study:

**Attributed Charisma** may refer to a person with a strong magnetic personality that attracts followers who desire to emulate this person's enthusiasm. The person with attributed charisma exhibits commitment to improving the organization while focusing on the needs of others/followers.

**Contingent Reward** hinges on followers' performance or lack of performance. Followers are given rewards for

acceptable performance, and rewards are withheld for unacceptable performance.

**Effective Leadership** is reflected in the attitudes of those who are led. Effective leadership may be reflected in overall group performance. It may also be seen in how the leader: represents the group to superiors; meets the job related needs of others; and meets the organizational requirements. Effective leadership can "move organizations from current to future states, create visions..., commit to change..., [and] instill new culture and strategies in organizations that mobilize and focus energy and resources" (Bennis & Nanus, 1985, p. 17).

**Gender** refers to the physiological difference between men and women as reported by respondents.

**Idealized Influence** is the trust and admiration others have for their leaders. Others identify with their leaders and desire to emulate their leaders' behaviors or thoughts.

**Inspirational Leadership** is the motivating of others by projecting enthusiasm and optimism for the organization and toward the individuals within the organization. "The leader creates clearly communicated expectations that followers want to meet and also demonstrates commitment to goals and the shared vision" (Bass & Avolio, 1994, p. 3).

**Intellectual Stimulation** challenges followers to look for new ideas and creatively solve problems. Followers are

encouraged to try new ideas even if their ideas differ from those of the leader.

**Individualized Consideration** is given to followers by the leader. Individual needs for achievement and professional development are recognized and opportunities are made available. The leader interacts with individual followers, recognizes their contributions and needs, and accepts their differences.

**Leadership** is defined as both a process and a property (Moss et al., 1994b). The process of leadership involves determining when change is needed and influencing others to change. The property of leadership is the followers' perception of the individual as a leader.

**Line-Authority or Line-Position** implies a direct line of authority or supervision over subordinates, i.e., principal of a vocational or technical school.

**Management-by-Exception-Active** is a condition in which the leader actively monitors followers' work and takes action when mistakes or errors are discovered.

**Management-by-Exception-Passive** is a condition in which the leader passively waits for mistakes or errors to occur and then takes action.

**Non-Leadership or Laissez-Faire Leadership** is an inactive style of leadership in which the leader actually avoids or does not assume responsibility (Bass & Avolio, 1990).

**Staff-Authority or Staff-Position** is an indirect type of authority in which someone serves as a consultant or coordinator to individuals without any direct control over them, i.e., system wide vocational director.

**Transactional Leadership** is a form of leadership in which an exchange is made between the leader and the follower. According to Bass and Avolio (1994), transactional leadership "depends on contingent reinforcement, either positive contingent reward or ... management by exception" (p. 4).

**Transformational Leadership** is a form of leadership that fully engages followers in such a way that they may be developed into leaders. A transformational leader establishes a vision and inspires others to believe in the vision. A transformational leader provides a situation for followers that is intellectually stimulating and recognizes their individual differences (Bass & Avolio, 1990).

**Vocational Administrator** may be a chief vocational administrator of a school division, a vocational department chair, a vocational-technical school principal, an assistant principal, or an equivalent person who is responsible for the vocational education programs.

#### Chapter Summary

This chapter dealt with change in vocational education spurred by the Perkins II Act, and the ensuing responsibility of local vocational administrators. Legislation now bypasses

state level administration, and local administrators are responsible for implementing changes in curriculum and developing new technical preparation programs. The vocational administrator must initiate a vision of change and motivate followers to adopt and implement it. The leader who effectively does this often employs transformational leadership. This study investigated the relationship of leadership style and gender to rated effectiveness of vocational administrators in Virginia.

## Chapter Two

### Literature Review

This chapter presents a review of the literature concerning leadership style, gender, and leader effectiveness as related to vocational education. Section one focuses on the development of leadership theories. Section two describes three instruments used in leadership identification. Section three consists of the research on the new paradigm of transformational leadership while section four discusses the role of women in leadership. Section five consists of a review of leader effectiveness with the final section exploring leadership in vocational education.

#### Leadership Theories

Through the years, leadership has been defined in many different ways (Bass, 1990; Bennis & Nanus, 1985; Moss, Lambrecht, Jensrud, & Finch, 1994a; Moss, Johansen, & Preskill, 1991; Moss & Liang, 1990; Yukl, 1994). According to Burns (1978) "leadership is one of the most observed and least understood phenomena on earth" (p. 2). While leadership may not be understood and may have many different meanings, there has been consensus that it is observable (Bass, 1990; Burns, 1978; Bennis & Nanus, 1985; Finch, Faulkner, & Gregson 1992-1993; Heller, 1982; Moss and Liang, 1990). The National Center for Research in Vocational Education (NCRVE) has defined leadership as both a process and a property that encompasses many perspectives (Moss et

al., 1994a; Moss, Lambrecht, Jensrud, & Finch, 1994b). Moss et al. (1994a) has defined the "process" of leadership as knowing when change is needed, convincing others through noncoercive means, and enlisting their ideas to establish new goals. The "property" of leadership can be described as what others in the group ascribe to an individual, whom they perceive as a leader. In other words, as Moss et al. (1994a) have suggested this property "lies in the eye of the beholder, only those who are perceived that way are leaders" (p. 4). The multiple meanings of leadership have been the result of a number of theories which have evolved over time.

Research focusing on leadership theories has been based on leader traits, behaviors, situations, and motivation. Some approaches to leadership such as the participative and the transformational have combined ideas from earlier theories (Yukl, 1994). To shed further light on the meaning of leadership, I will review four basic theory approaches: trait theory, behaviorist theory, situation theory, and motivation theory.

### Trait Theory

Trait theory is one of the earliest approaches to studying leadership. Yukl (1994) explained the basic premise of trait theory as "the assumption that some people are natural leaders who are endowed with certain traits not possessed by other people" (p. 12). According to Stogdill (1974) and Yukl (1981), earlier research on trait theory

included studies on physical characteristics, personality, and ability of leaders in comparison to nonleaders. Adams and Yoder (1985) were not as inclusive in their interpretation of trait theories and stated that "according to trait theorists, leadership is determined by the personality characteristics of the person or persons who influence group members" (p. 3).

Stogdill reviewed "124 trait studies from 1904 to 1948" and "163 studies done from 1949 to 1970" (Yukl, 1981, pp. 68-69). From these reviews, Stogdill found that the earlier studies did not support the premise that a successful leader must possess certain traits (Bass, 1990; Hanson, 1985; Stogdill, 1948, 1974; Yukl, 1981). The later studies reviewed by Stogdill focused on the relation of leader traits to leader effectiveness (Stogdill, 1974; Yukl, 1981). Yukl (1981) concluded that

it is now recognized that certain traits increase the likelihood that a leader will be effective, but they do not guarantee effectiveness, and the relative importance of different traits is dependent on the nature of the leadership situation. (p. 70)

Yukl (1981) stated that the research carried out in assessment centers supports the belief that successful leaders can be predicted. The methods used for prediction have included trait and skill assessment, situational tests, interviews, written tests, and speaking and writing

exercises. Over the years, better designed research studies have made progress "in discovering how leader attributes [traits] are related to leadership behavior and effectiveness" (Yukl, 1994, p. 12). Adams and Yoder (1985) explained that trait theorists refer to what leaders "are" as compared to behavioral theorists who describe leaders by what "they do" to lead.

### Behaviorist Theory

Behaviorist theory developed during the 1950's with a focus on leadership styles or the behaviors by which a person manifested leadership (Adams and Yoder, 1985; Yukl, 1994). Adams and Yoder (1985) explained that "behaviorist or style theorists highlight what leaders do when they lead" (p. 4). According to Yukl (1981) many different data collection methods have been used in behavioral research studies such as diaries, continuous observation, activity sampling, retrospective self-reports, questionnaires, and critical incidents. There have been advantages as well as disadvantages to each method of data collection. Following are several subcategories which will further explain behaviorist theory.

#### Task-oriented and relationship-oriented.

Much of the literature on behaviorist theory is based on leadership studies initiated at The Ohio State University and the University of Michigan in the early 1950's (Bass, 1990; Yukl, 1981, 1994). The Ohio State University researchers

developed questionnaires for subordinates to measure the behaviors of their leader or manager. Through factor analysis of the questionnaire responses, broad leadership behaviors emerged which may be labeled as "consideration" and "initiating structure" (Adams & Yoder, 1985; Hanson, 1985; Yukl 1981, 1994). "Consideration and initiating structure were found to be relatively independent categories" (Yukl, 1994, p. 54); however, many leaders fell somewhere on the continuum between the extreme high and low of either category. The following four instruments (questionnaires) evolved from The Ohio State University leadership studies: the Leader Behavior Description Questionnaire (LBDQ), the Supervisory Behavior Description (SBD or SBDQ), the Leader Opinion Questionnaire (LOQ), and Leader Behavior Description Questionnaire - Form XII (LBDQ XII).

About the same time studies were being conducted at The Ohio State University, the University of Michigan was also involved in leadership studies. "The focus of the Michigan research was the identification of relationships among leader behavior, group processes, and measures of group performance" (Yukl, 1981, p. 113; Yukl, 1994, p. 59). Interviews and questionnaires were used to collect information on leaders in a variety of settings to classify them as either effective or ineffective. Three types of leadership behaviors emerged from the Michigan studies: task-oriented behavior,

relationship-oriented behavior, and participative leadership (Yukl, 1994).

Yukl (1994) summarized the similarities between the behaviors identified in the Michigan and Ohio studies. He believed that task-oriented behaviors were similar to initiating structure behaviors and relationship-oriented behaviors were similar to consideration behaviors. Yukl (1981) found

comparison of the behavior patterns for effective and ineffective managers revealed that effective managers usually concentrated on administrative functions like planning, coordinating, and facilitating work. These task-oriented aspects of leadership behavior were carried out without neglecting interpersonal relations with subordinates. (p. 129)

Yukl (1994) also added that descriptive behavioral research suggested "that effective leaders show a dual concern for task and relationships in their day-to-day pattern of behavior" (p. 75).

#### Directive and participative leadership.

According to Bass (1990), most leaders used directive and participative leadership to different degrees. A directive leader solved the problems, made decisions and told followers what was expected of them (Bass, 1990). Directive leaders often used charismatic persuasion or contingency to motivate followers.

In participative leadership, leaders engaged followers in the problem solving and decision making (Bass, 1990). Sashkin (1982) found that the organization benefited in terms of workers' performance and efficiency under this leadership style because the individuals felt more autonomy. Yukl (1994) explained that "participative leadership is primarily concerned with power sharing and empowerment of followers, but it is firmly rooted in the tradition of behavior research" (p. 14). Finch and McGough (1982) stated that "participative leadership places emphasis on both upward and downward communications and a one-to-one interaction between supervisors and subordinates" (p. 77). Sashkin (1982) identified four areas of participation as (1) setting goals, (2) making decisions, (3) solving problems, and (4) developing and implementing change. Leader effectiveness study findings at the University of Michigan further supported the greater effectiveness of participative leadership according to Yukl (1981). The study results found "that in some situations participative leadership results in greater subordinate satisfaction and performance" (Yukl, 1981, p. 115).

#### Autocratic and democratic leaders.

For a long time leaders were thought to be either autocratic or democratic. According to Adams and Yoder (1985), autocratic leaders "centralize power in themselves and dominate the decision-making processes of the group" (p.

5). On the other hand, they stated that democratic leaders "share their power and responsibilities with group members. Decisions are made by consensus or group agreement" (p. 5).

Blanchard, Zigarmi, and Zigarmi (1987) referred to the democratic leadership style as supportive and the autocratic leadership style as directive. The autocratic leader used his or her position of power to lead people. The autocratic leader used a directive behavior of directing and telling others where, when, and how to do a task while supervising closely. The democratic leader used more supportive behaviors by listening to followers and involving them in decision making through encouragement. The democratic leader used personal power of influence and "involves [sic] others in participative problem solving and decision making" (Blanchard et al., 1987, p. 13).

### Situational Theory

As leaders develop a repertoire of knowledge and skills in leading others, their styles vary according to the situation and the maturity of those being led. Adams and Yoder (1985) explained that "situation theory focuses on the characteristics of the task and situation or social context in which leadership is enacted" (p. 12). They went on to say that the leader adapts to situations and engages diverse styles of leadership (Adams & Yoder, 1985). "In many situations, various combinations of both directive and supportive behavior are [sic] evident, and ... are [sic] not

mutually exclusive" (Blanchard et al., 1987, p. 13). "The assumption is [sic] that different behavior patterns (or trait patterns) will be [sic] effective in different situations, and that the same behavior pattern (or trait patterns) is [sic] not optimal in all situations" (Yukl, 1994, p. 14). Blanchard et al. (1987) developed a situational leadership model which included four basic leadership styles (directing, coaching, supporting, delegating) and four development levels indicative of a follower's commitment to and competence in a task. The leader treated individuals differently depending on the situation and the follower's developmental level.

### Motivational Theories

Recent research in leadership studies focused on the motivation of followers by leaders. McGregor's Theories X and Y and Ouchi's Theory Z were prominent leadership theories focusing on how the leader's approach to followers affected the organization's performance.

#### McGregor's theory x and theory y.

Douglas McGregor's research supported the assumption that an administrator or supervisor's perception of people affected their leadership. The "administrator's attitude towards other people is [sic] likely to influence his selection of an approach to motivating them" (Gorton, 1983, p. 206). McGregor determined and named two positions that leaders adopt about their followers as "Theory X" and "Theory

Y" (Finch and McGough, 1982). Hoyle, English, and Steffy (1990) explained that "'Theory X' takes the position that people dislike work and are lazy and must be pushed and directed" (p. 17). The Theory X administrator concentrated solely on getting the job done and often accomplished this through tough aggressive tactics (Finch & McGough, 1982; Hoyle et al., 1990). Hoyle et al. (1990) continued that "'Theory Y' embraces the notion that people enjoy work as much as play and are creative, autonomous, and goal seekers" (p. 17). Thomas (1985) explained that McGregor believed "Theory Y leadership is more effective and more appropriate than Theory X leadership" (p. 1). Theory Y was more humanistic by placing a high priority on the people in the organization. The Theory Y administrator generally provided an environment that created higher on-the-job worker satisfaction. The employees were valued and their crucial role in the overall organization was significant (Finch & McGough, 1982).

#### Ouchi's "theory z".

William Ouchi, management professor at the University of California -- Los Angeles, developed a "Theory Z" idea of management. Sergiovanni (1982) explained that "Theory Z is primarily the articulation of the basic values of McGregor's 'Theory Y' to the organizational level" (p. 335). Theory Z emphasized the need for a corporate philosophy and for centering management around the employees, asking for their

ideas of improvement. "Theory Z emphasizes [sic] the development of 'quality circles' to create small groups composed of management and workers, working as problem-solving teams" (Hoyle et al., 1990, p. 17). Theory Z's "building blocks are trust and loyalty to the organization, a commitment to one's job, and a sense of dedication" (Sergiovanni, 1982, p. 335). This theoretical concept communicated respect, trust, and appreciation for the employee. Miller and Sparks (1984) stated "Theory Z goes beyond the personal style of the individual leader. It focuses on the culture of the total organization" (p. 49).

#### Summary of Leadership Styles

Knowledge and understanding of leadership continue to evolve; however, aspects of trait, behavioral, situational, and motivational theories continue to shape research on leadership. Leadership has been viewed from many different perspectives and measured in many different ways. There was no widely agreed upon definition of leadership due to the multiple theoretical approaches to the concept. The interpretation of leadership varied from situation to situation, group to group, and individual to individual. Movement from traits to behaviors to situations to motivation has been an evolutionary process which continues to build and incorporate concepts from earlier studies. Kouzes and Posner (1993) summed up the present evolving idea of leadership as

"a reciprocal relationship between those who choose to lead and those who decide to follow" (p. 1).

### Instruments for Identifying Leadership

#### Leader Attributes Inventory and Leader Effectiveness Index

The National Center for Research in Vocational Education (NCRVE) developed two leadership instruments: the Leader Attributes Inventory (LAI) and the Leader Effectiveness Index (LEI) (Moss et al., 1994a, 1994b). The instruments were designed for use in conjunction with formal leadership development programs (Moss, Schwartz, & Jensrud, 1994). The intended uses were to complement a leadership development program for leaders in vocational education. Both instruments have had two main applications: a point-in-time assessment and assessment of change over time (Moss et al., 1994a, 1994b). There are two versions of each instrument: a self-rating form and a rating-by-observer form. It was recommended that observer data for both the LEI and LAI be obtained from three to five constituents.

#### Leader attributes inventory (LAI).

The LAI contains 37 items with each item being a positive statement of a leader attribute. Moss et al. (1994a) explained that the rater responds to a 6-point response scale "which describes the extent to which the rater believes the person being rated (ratee) possesses the attribute" (p. 12). From the ratings, the scores of self-rating are compared to ratings-by-observers on each attribute

and any discrepancies noted. From the findings, specific knowledge is gained concerning which attributes need strengthening.

Leader effectiveness index (LEI).

"The LEI provides a multi-observer assessment of the effectiveness of leadership performance in vocational education" (Moss et al., 1994b). The LEI contains seven items and yields a single score. Six of the items reflect leadership tasks and the seventh item is about overall effectiveness of the leader. "The scale (scored 1-6) ranges from 'Not Effective' to 'Extremely Effective'; a response of 'Not Applicable' is also permitted" (Moss et al., 1994b).

Multifactor Leadership Questionnaire (MLQ)

The Multifactor Leadership Questionnaire (MLQ) has been developed by Bass and Avolio at the Center for Leadership Studies at State University of New York at Binghamton over the past ten years "to provide researchers and practitioners with a method of reliably measuring the behaviors constituting transformational, transactional, and laissez-faire leadership" (Bass and Avolio, 1990, p. 5). The questionnaire includes 87 items rated on a five point rating scale according to the frequency of a behavior (*frequently, if not always to not at all*), the amount of effectiveness (*extremely effective to not effective*), and the degree of satisfaction (*very satisfied to very dissatisfied*) (Bass, 1990; Bass & Avolio, 1990, 1994). The factor structure of

the instrument includes five transformational factors, three transactional factors, one nonleadership factor, and three outcome factors (Bass & Avolio, 1991). The transformational factors are attributed charisma, idealized influence, inspirational leadership, intellectual stimulation, and individualized consideration. The three transactional factors are contingent reward, management-by-exception-active and management-by-exception-passive. The nonleadership factor is laissez faire. The three outcome factors are satisfaction with leader, individual and group effectiveness, and extra effort by followers. Four additional items are for biographical information collection.

There are two versions of the MLQ: a self-rater form and an observer-rater form. Bass and Avolio (1990) stated that "currently, there is no specific optimal size for the rater group that can be suggested for evaluating a single leader" (p. 5). They recommended that a profile report not be shared with the leader unless at least three raters evaluated the leader to better insure anonymity. Studies of educational administrators conducted by Tucker, Bass, and Daniel (1992) and Kirby, Paradise, and King (1992) used one to three subordinates to rate their immediate supervisor.

#### Leader Behavior Questionnaire (LBO)

"The Leader Behavior Questionnaire (The Visionary Leader) was developed in the 1980s in an effort to quantitatively assess the new construct of 'transformational

leadership'" (Sashkin, Rosenbach, Deal, & Peterson, 1992, p. 132). The original instrument had five scales based on the work of Bennis and Nanus (1985). A sixth scale was added to "examine the relationship between transformational behaviors and charismatic affect[sic]" (Sashkin et al., 1992, p. 132). Sashkin et al. (1992) explained that the LBQ has gone through several revisions in an effort to

provide a more complete assessment of transformational leadership by including measures of behavior, of personal characteristics, and of the effects of the leader's actions on the organizational climate. (p. 132)

The LBQ is comprised of 50 statements. These 50 statements generate ten scaled scores, three sub-scores and a total transformational leadership score. For construct validity, the LBQ had been compared with a version of the Multifactor Leadership Questionnaire with the same populations in studies conducted by Rosenbach (Sashkin et al., 1992). From the research studies done, results "suggest that there is something real and constant that is 'there' and is being measured" (Sashkin et al., 1992, p. 134).

Two versions of the LBQ can be used: one for self-rating and one for constituent or observer-rating. It was recommended that LBQ-Observer data be obtained from at least three or four associates.

### Summary of Instruments

In each of the instruments presented, parallel forms for self-rating and observer-rating are available. Each instrument is directly or indirectly linked to the theoretical concept of transformational leadership.

The LAI and LEI were developed for use with vocational educators in particular. The LAI identifies leader attributes or traits of the individual and the LEI determines leader effectiveness. Both instruments are intended to be integral parts of a leadership development program. The MLQ was used in a developmental study of the LAI for concurrent validity purposes (Moss et al., 1994a). Moss et al. (1994a) found a close relationship among "LAI attributes and the four transformational scales of the MLQ" (p. 30). The LEI statements reflected transformational concepts. In repeated studies, a high correlation had been found between the LAI attributes and LEI items (Moss et al., 1994a). Thus, an indirect link may be made between the LEI and transformational leadership.

The intended use of both the LBQ and the MLQ is to measure transformational leadership. The LBQ is more narrowly focused on transformational leadership. The MLQ is also divided into the constituent factors of transformational leadership, transactional leadership, nonleadership (*laissez faire*), and organizational outcomes.

Following a review of these instruments and careful consideration of each one, the MLQ was used to answer the research questions posed in this study. Through the use of the MLQ, a more thorough understanding of the vocational leaders in the study was obtained.

#### New Leadership Paradigm

Throughout the years, the concept of leadership has been defined in many different ways. In this study, a new form of leadership was the main focus. Bennis and Nanus (1985) described this new leader as "one who commits people to action, who converts followers to leaders, and who may convert leaders into agents of change" (p. 3). They "refer [sic] to this as 'transformative leadership'" (p. 3).

Burns (1978) first identified two types of leadership as transactional and transforming by building on Downton's (1973) study of rebellious and ordinary leaders. Bennis and Nanus (1985) further developed Burns' concept of transforming leadership and called it transformative leadership. Both recognized and gave credit to a new form of leadership that they felt was especially important in times of change. Bernard M. Bass (1985) is credited with establishing a paradigm of leadership theory called transformational leadership.

Transformational leadership theory was first proposed by Bass (1985), building on Downton's (1973) work, on Burns' (1978) concept of transforming leadership, and on Bennis and

Nanus' (1985) transformative leadership concept. In Burns' (1978) study of political leaders, he noted a difference in great and ordinary politicians' abilities to motivate followers. He determined that leaders were either transactional or transforming. Bass (1985) agreed with Burns' idea of an emerging form of leadership. However, Bass (1990) proposed that transactional leadership was augmented by transformational leadership.

### Transformational

Transformational leaders are found during times of change (Van Ebron & Burke, 1992). Van Ebron and Burke (1992) proposed that selection and development of transformational leaders are important during times of change.

The current revised version of the MLQ Form 5X identifies transformational leadership based on five factors: attributed charisma, idealized influence, inspirational leadership, intellectual stimulation, and individual consideration. A transformational leader possesses one or any combination of the five attributes.

#### Attributed charisma/vision.

A charismatic leader has a vision for the organization. The charismatic or visionary leader develops an organizational vision, articulates the vision to others, and solicits the input of key subordinates in the development of the vision. The leader exemplifies the vision through personal practices and actions. Sashkin (1988) stated

"school leaders should be able to create visions that can be realized over a three-to five-year span" (p. 246).

#### Idealized influence.

Bass and Avolio (1994) identified the concept of idealized influence of the leader. They believed that the leader serves as a role model and is admired by his or her followers. Followers have great admiration and respect for their leader and desire to emulate the leader's actions. The leader shows consideration for the followers and takes risks along with them. The leader "can be counted on to do the right thing, demonstrating high standards of ethical and moral conduct" (Bass & Avolio, 1994, p. 3).

#### Inspirational leadership.

The inspirational leader communicates a vision and establishes goals for others to pursue. The inspirational leader shows enthusiasm and excitement that motivates others to get involved in developing future goals (Bass & Avolio, 1994). According to Bass (1988), an "inspiring leader is perceived by followers to be knowledgeable, enlightened and sensitive to the problems at hand" (p. 21). The inspirational leader and the followers share values and beliefs. The followers of an inspirational leader are willing to exert extra effort for the attainment of organizational goals. The leader's perceived confidence in followers influences followers to use what might be otherwise dormant capabilities.

### Individualized consideration.

The individually considerate leader recognizes each individual as a whole person, listens to concerns, and provides a supportive environment. Individual differences are accepted. Each individual's needs and interests are taken into consideration by the leader as new learning opportunities are developed. The leader acts as a mentor and coach in the achievement of goals. The individually considerate leader "delegates tasks as a means of developing followers" (Bass & Avolio, 1994, p. 4) and provides assistance and further directions as needed. The supportive environment of the individually considerate leader motivates followers to exert extra effort and work effectively.

### Intellectual stimulation.

Intellectually stimulating leaders are involved in developing visions and creating possibilities for their followers. Followers are encouraged to question the old ways of doing things and consider new ways of approaching current problems (Bass, 1990, 1985; Bass & Avolio, 1990). Followers develop abilities to solve problems and to think for themselves. "A key measure of a leader's effectiveness is how capable followers are when operating without the leader's presence or direct involvement" (Bass & Avolio, 1990, p. 15). The intellectually stimulating leader stimulates followers to

develop their own beliefs and supports their innovative ideas.

### Transactional

Transactional leadership is a common or traditional form of leadership (Bass, 1990; Burns, 1978). The transactional leader recognizes the needs of the organization and the followers and decides how these needs can be met. The followers' rewards are contingent on their performance. According to Bass and Avolio (1994), "transactional leadership depends on contingent reinforcement, either positive contingent reward (CR) or the more negative active or passive forms of management-by-exception (MBE-A or MBE-P)" (p. 4). Transactional leaders focus on maintaining the status quo. Transactional leadership functions best in organizations that are functioning under stable conditions (Van Ebron & Burke, 1992).

### Contingent reward.

In contingent reward, an exchange is made between the leader and followers (Bass & Avolio, 1990). The objectives are established and rewards or nonrewards are based on performance or achievement of objectives. Unfortunately, leaders often lack the time to assess work and/or do not have control over rewards which are necessary for contingent reward to be effective (Bass & Avolio, 1990). While contingent reward is effective in achieving lower order

objectives, it is not as effective as transformational methods according to Bass and Avolio (1994).

Management-by-exception (MBE).

Management-by-exception is less effective than contingent reward, but there could be times when it is appropriate. When leaders take corrective action and intervene only when failures and deviations occur, they are practicing management-by-exception (Bass, 1990). Bass (1990) classified MBE as "contingent aversive reinforcement" (p. 323) since the leader intervenes only when something is wrong. Bass and Avolio (1994) divided MBE into two categories -- active (MBE-A) and passive (MBE-P). In MBE-P, the leader waits passively for mistakes or errors to occur and then takes action. The leader does not become involved in the follower's performance unless there is a problem. In MBE-A, on the other hand, the leader establishes assessment methods to monitor the follower's performance. If performance does not meet expectations, the leader will take action that might involve contingent reward.

Transactional Augmented by Transformational

Bass and Avolio (1990) found that transactional leadership was often augmented by transformational leadership when predicting organizational outcomes. "Specifically, transformational leadership accounts [sic] for unique variance in ratings of performance above and beyond that accounted for by active transactional leadership" (p. 30).

Waldman et al. (1990) conducted a study involving 186 U.S. Naval officers who had graduated from the U.S. Naval Academy and six immediate subordinates of each officer. A version of the MLQ for military officers was used in the study. The purpose of the study was to determine if charisma (transformational leadership) of leaders augmented contingent-reward (transactional leadership). The study findings supported the augmentation idea of "leadership that generates confidence and inspiration may result in leadership effectiveness regardless of contingent-reward behavior" (Waldman et al., 1990, p. 391).

#### Laissez faire or Nonleadership

Laissez faire leadership is nonleadership. "No one formally or informally shoulders the responsibility of leadership, and the group often flounders when it is forced to make a decision" (Adams & Yoder, 1985, p. 5). The laissez faire leader does not interact with followers and assumes no responsibility for leading others. According to Tucker, Bass, and Daniel (1992), laissez faire leadership resulted in a negative outcome of effectiveness.

#### Summary of New Leadership Paradigm

The new paradigm of leadership proposed by Bass (1985) and further developed by Bass and Avolio (1990) has the potential to transform organizations from ordinary to extraordinary. A transformational leader establishes a vision for the organization and inspires others to join in

developing the vision. The transformational leader recognizes each individual and provides stimulation for their intellectual development. The transactional leader recognizes the needs of the organization and bases contingent reinforcement on followers' performance. In certain situations, transactional leadership is augmented by transformational leadership.

### Gender

As leadership has been studied (Bass, 1990; Heller, 1982), many theories have evolved. The theoretical basis of leadership research has been primarily developed based on data from white male leaders gathered by white male researchers (Hill & Ragland, 1995; Morrison, 1992). Concepts of leadership are changing due to flattening organizational structures and the recognition of the assets of leadership diversity within an organization (Hill & Ragland, 1995). Heller (1982) believed that educational organizations were more open-minded toward women in leadership roles than business organizations. While the research on women in leadership was limited, efforts have been made to study women (Heller, 1982; Hennig & Jardim, 1977; Hill & Ragland, 1995; Murphy, 1990; Shakeshaft, 1987). Findings from several studies will follow.

### Women as Leaders

Over the past twenty years, the number of women administrators in education has been increasing (Hill &

Ragland, 1995). However, very little research has been conducted focusing on women in educational administration (Shakeshaft, 1987), and even less on women in vocational education administration (Murphy, 1990).

Hennig and Jardim (1977) conducted a study of 25 women who had reached top management positions in business and industry by 1970. The women interviewed had been in management for over 25 years. Findings revealed the women in this study had not planned to pursue careers in management, but rather to marry and have families which was quite the norm of the times. However, the women found the challenges of business and industry rewarding and encouraged other women to reach for high positions of management. Women in the study acknowledged that this required sacrifices in their personal lives.

A study conducted by *Fortune* in 1990 (Fierman, 1990) revealed inequalities in position and pay in 1000 of the largest U.S. industrial and service companies. Of the 4,012 highest paid officers and directors in the companies, 19 were female, which was less than one half of one percent. Fierman (1990) reinforced the advantage of line-positions as the straightest way to the top; however, women were not as likely to be in these positions. Although Hennig and Jardim (1977) and Fierman (1990) investigated women in business and industry, similarities can also be found in education.

Shakeshaft (1987) and Hill and Ragland (1995) reported on some of the most recent research on women in educational administration. Through a review of literature on leadership, Shakeshaft (1987) revealed "traditional female approaches to schooling look like the prescriptions for administrative behavior in effective schools" (p. 199). She explained that women generally engage in more democratic and participatory forms of leadership by talking more to subordinates and listening to their ideas. Shakeshaft (1987) went on to state that women develop noncoercive, non-threatening means to motivate subordinates and provide humanistic feedback. She found the average woman in an administrative position was older, had taught longer, and earned less than male colleagues in similar positions. Shakeshaft (1987) added that women heard the emotional and personal side of issues rather than just listening for facts, and were willing to share information with subordinates. Shakeshaft (1987) believed that

rather than urging women to forgo female styles and emulate men, then, it seems that we should advise them [men] to watch how women speak and listen and try to make those styles their own if they want to be effective school administrators. (p. 186)

Hill and Ragland (1995) interviewed 35 women who were nominated by male and female educators as educational leaders. The women in their study represented a diverse

geographic area (19 states and two provinces) and composition. Although the number of women in administrative positions was increasing, Hill and Ragland (1995) noted that women were often in lower paying, staff positions, which are less likely to lead to advancement, rather than line positions, e.g., supervisor rather than director or associate superintendent. They stated that women often did not recognize this discrimination, and very little mentoring occurred to help position them for advancement. Hill and Ragland (1995) added that "cracks" were occurring as large numbers of administrators retire creating opportunities for more women in administration. They found that women are gaining experience in district offices and as principals. Their study revealed that women were often sent into challenging situations to bring about change and handle a crisis. Hill and Ragland (1995) noted that many women were successful by "bringing the first care and commitment complemented by a different leadership style" (p. 20) to seemingly impossible situations. As changes occurred in schools due to restructuring and reforms, jobs changed, too, so that "job dimensions are reshaped to provide service, support, and guidance" (Hill & Ragland, 1995, p. 23).

Heller (1982) conducted a study which included six male-female pairs of leaders equally matched as to rank, job, and organization types (business, education, and social service). She determined that each gender had strengths of effective

leadership. Rather than maintaining outdated, rigid, stereotypical ideas of leadership, she recommended that new images of leadership, including both men and women, be developed.

#### Women in Vocational Education Administration

In 1985, a special project sponsored by the Women's Educational Equity Act Program of the U.S. Department of Education and American Vocational Association (AVA) identified women leaders in vocational education administration. The end product of the project was a computerized directory of 359 women across the nation who were considered leaders in vocational administration. The directory, *Women in Vocational Education Administration*, included articles by eight outstanding women in exemplary decision-making positions of vocational education as well as profiles of the 359 women. The directory was a sincere effort by the American Vocational Association to acknowledge and promote outstanding women in many areas of administration, e.g., "program planning, budgeting and finance, management and supervision, operations and facilities and others" (AVA, 1985, p. ii).

Murphy (1990) used the directory, *Women in Vocational Education Administration*, for a study she conducted on women in leadership positions in vocational education. The study was patterned after Hennig and Jardim's (1977) study reported in their book -- *The Managerial Woman*. Murphy included 46

women in positions traditionally held by men. Through questionnaire and interview format, she explored the lives, experiences, opinions, and ideas of the female leaders in vocational administration. Her study findings revealed that women preferred participatory management style and "received their greatest rewards from helping, assisting, and motivating others and building successful programs" (Murphy, 1990, p. 33). The findings of Murphy's study indicated that women believed it was more difficult for a woman to succeed in vocational education administration than a man. However, Fierman (1990) reported that, due to the increasing number of women and minorities in the workplace, management would do well to include them in positions of leadership in the future.

The NCRVE studies in the development of the LEI (Moss et al., 1994b) found that women vocational leaders were rated higher on leader effectiveness than men leaders participating in the studies. Two possible reasons were given to explain the difference. One reason given was that "it is typically more difficult for women than men to attain administrative positions, those who do are likely to be a more select group" (Moss et al., 1994b, p. 32). A second reason given by Moss et al. (1994b) was that "the attributes (qualities) of individuals consistent with the desired facilitating, empowering role of leaders in vocational education are often thought to be among the strengths our culture develops in

females" (p. 32). While there was no direct link made between the LEI and transformational leadership theory, the concepts identified were very similar.

#### Women and Transformational Leadership

Hackman, Hills, Furniss, and Paterson (1992) investigated the relationship between "perceived gender-role characteristics and transformational and transactional leadership" (p. 311). Hackman et al. (1992) used Bass's MLQ and Bem's Sex-role Inventory for the study of 153 students in a management course at New Zealand Polytechnic. Their findings indicated that "transformational leadership is associated with both masculine and feminine factors" (p. 318). Thus, a gender balance of characteristics would be most desirable. The findings of Hackman et al. (1992) supported the contemporary theory that effective leadership combined both relation and task-oriented awareness which was reflected in transformational and transactional leadership. Hackman et al. (1992) explained that transformational leadership according to theory included characteristics considered masculine and feminine, and effective leadership included both types of gender behaviors.

#### Summary of Gender

Women, like men, are effective leaders in education. Studies of women in leadership positions revealed that they used participatory and democratic forms of leadership. Women were sensitive to the needs of the individuals within the

organization and not only listened, but encouraged ideas from subordinates. Women empowered individuals to assist in goal setting and decision-making. The behaviors and characteristics of women leaders paralleled many of the behaviors of transformational leaders. Finally, as Hill and Ragland (1995) stated, "perhaps our need for leadership is so great that the optimum time has arrived for us to use our resources to develop the best and to select the best leaders regardless of gender descriptors" (p. 49).

### Effective Leadership

In the literature, leadership and management are sometimes used interchangeably, and at other times are considered to be quite different concepts. Bennis and Nanus (1985) made a distinction between leaders and managers. Others, such as Yukl (1994), felt that leader and manager were interchangeable terms and noted no distinguishable differences in their research findings. Sayles (1993) divided managers into two distinct groups: "administrators (those who follow prescribed, programmed managerial directives) and leaders (those who introduce change)" (p. 1). To avoid confusion in this study, the terms manager and leader will be used interchangeably in the discussion of effective leadership that follows.

Kirby, Paradise, and King (1992) conducted a study of educators using Bass's MLQ to determine the perceived leadership behaviors, and the behaviors associated with

followers' satisfaction and leader effectiveness. The researchers determined that "transformational leadership can be found in educational settings" (p. 309). The study supported the idea that leaders who provide intellectual stimulation and individualized consideration are considered more effective by their followers. A similar research study was done at a university setting in which administrators were rated using the MLQ (Tucker et al., 1992), and it was found that followers perceived transformational leaders as more effective than other types of leaders.

The findings of a study conducted by Finch et al. (1992-1993) of successful postsecondary vocational administrators and their followers revealed that when transformational leadership was used "institutions became more effective" (p. 61). In addition, their study showed that followers of a transformational leader exhibited similar behaviors, i.e., the cascading effect. Consequently, not only the administrator, but the entire organization became more effective when transformational leadership was employed.

Moss, Finch, and Johansen (1991) conducted a study of effective vocational administrators at both the secondary and postsecondary levels. Through interviews with administrators and instructors who worked with the administrators, Moss, Finch, and Johansen (1991) determined that different criteria were used to determine effective leaders at the two educational levels. At the postsecondary level, the

criterion rated the highest for an effective leader was improved group processes. At the secondary level, the criterion rated the highest was that the leader helped to attain organizational goals. The study findings also validated earlier findings of NCRVE studies of the relationships of leader attributes and effectiveness.

Bettin, Hunt, Maccaulay, and Murphy (1992) conducted a study of organizational effectiveness in a large Japanese service organization. They found that

the way in which leaders behave, the priorities they establish for themselves and the work group, and the activities and relationships they engage in with other team members are the most important factors in determining leadership effectiveness. (p. 93)

Despite cultural differences, the modeling and relationship of the leader determined effectiveness.

#### Self-Rating and Other-Ratings

Clark and Clark (1992) at the Center for Creative Leadership in Greensboro, North Carolina reported that

self-ratings of leadership performance have much lower correlation with performance estimates by others. Subordinates give more consistent and more valid estimates of leadership performance than do superiors, but both are more valid than self-ratings. (p. 5)

Leaders may have thought they were doing better than they actually were, "suggesting that subordinates are better judges of performance" (p. 5).

Bass and Avolio (1990) emphasized that leaders should be rated by others, along with self-ratings. In their studies using the MLQ with Naval officers, inconsistent results between the ratings of leaders and followers indicted a need for both ratings.

#### Summary of Leader Effectiveness

Whether the leader was called a leader or a manager, effectiveness was recognized. Leader effectiveness was linked to factors of transformational leadership such as intellectual stimulation, individualized consideration and improvement of group processes. Studies revealed that more consistent results for effectiveness were received from follower-ratings than from self-ratings alone.

#### Leadership in Vocational Education

In 1988, Edmunds stated "like business and industry, vocational education is engaged in a struggle to adapt to change -- a struggle to survive" (p. 24). To continue as a viable part of education, vocational education must have sharp leaders who can create new visions for vocational education (Edmunds, 1988). "Education is a latecomer to the study of leadership and almost no research has been done in vocational education" (Moss et al., 1994a, p. 2). As predicted in the late 1980's, vocational education has

experienced changes and a more flexible leadership has been needed. No longer are things predictable, now leadership is being challenged (Bennis & Nanus, 1985). The time is right for a paradigm shift in leadership which encourages flexibility.

For vocational educators to function effectively during times of change, they must learn and develop new ways of leadership (Finch et al., 1991). According to Bennis and Nanus, (1985) leaders "emerge [sic] when organizations face new problems and complexities" (p. 18).

Finch et al. (1991) conducted a study of vocational administrators in seven states to identify behaviors of successful administrators. This study involved a nomination of successful administrators. From those nominees, administrators were selected, along with two instructors for interviewing. The interview analyses revealed that many vocational administrators were using components of transformational leadership.

Bennis and Nanus (1985) believed leadership "can be learned by anyone, taught to everyone, denied no one" (p. 27). Leaders were always in a process of learning and improving their skills (Bennis & Nanus, 1985).

Since the passage of Perkins II in 1990, the NCRVE spent considerable time and effort in assessing the condition of leadership and the ways to improve or develop leaders in vocational education. The need was recognized for developing

new leaders to meet the challenges of the twenty-first century. Thus, studies were conducted to develop assessment instruments (LAI and LEI) for use in leadership development programs (Moss et al., 1994a, 1994b). A leadership development program for underrepresented groups has been developed (Moss, Schwartz, & Jensrud, 1994). Case studies (Finch, Reneau, Faulkner, Gregson, Hernandez-Gantes, & Linkous, 1992) and a simulation experience (Finch, 1993) were also developed for use in leadership programs.

In summary, the need has been recognized to prepare individuals in vocational education to meet the new and ever-changing leadership demands. Research was conducted and materials were developed for the improvement and advancement of leaders in vocational education administration. Through leadership activities, effective leaders can be developed and vocational education can remain a viable and integral part of American education.

#### Chapter Summary

The literature review has provided a framework for this study of leadership in vocational education administration. Through the literature review, an understanding of leadership and rated leader effectiveness was gained. Gender was examined to understand its effect on leadership. The development of many theories of leadership have had an impact on approaches to research studies. Transformational leadership was established as the theoretical basis of this

study. The literature review included a theoretical background, the variables, and the instruments that were included in this study.

## Chapter Three

### Methodology

In this chapter the study design, sampling procedure, instrument, data collection procedures and statistical analyses are described. Also included are descriptions of the procedures used to answer the three research questions along with a descriptive profile of the respondents, and data analysis for each question. The study research questions were:

1. To what degree do vocational administrators use perceived transformational, transactional, and laissez-faire leadership behaviors?
- 2a. Which leadership style behaviors (e.g., charisma, intellectual stimulation, contingent reward, etc.) differ between male and female vocational administrators for self-perceived leadership effectiveness?
- 2b. Which leadership style behaviors differ between male and female vocational administrators for others-perceived leadership effectiveness?
- 3a. What administrator characteristics (e.g., leadership style, gender, position) can be used to predict self-perceived leadership effectiveness?
- 3b. What administrator characteristics can be used to predict others-perceived leadership effectiveness?

### Research Design

An ex-post facto design, sometimes referred to as a causal-comparative design, was used in this study. Kerlinger (1973) explained:

Ex-post facto research is systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable. Inferences about relations among variables are made, without direct intervention, from concomitant variation of independent and dependent variables. (p. 379)

Ary, Jacobs, and Razavieh (1990) have stated that an ex-post facto (causal-comparative) study describes the present situation, "which is assumed to be an effect of some previously acting factors, and attempts a retrospective search to determine the assumed antecedent factors, which began operating at an earlier time" (1990, p. 357). Since experimental research is often not feasible in educational field studies, ex-post facto research is frequently employed and provides useful information for making educational decisions. The questions in this study did not lend themselves to true experimental research; therefore, ex-post facto research design was appropriate.

### The Sample

The target population for this study consisted of vocational administrators in Virginia as identified by the Virginia State Department of Education. Sixteen school divisions employed more than one vocational administrator. The population was narrowed to include only the principal from each of the twelve jointly owned and operated Vo-Tech Centers, and one vocational director or equivalent person responsible for vocational education from each city or county school division. Schools for the deaf and for the department of corrections were not included in the target population. Thus, the total target population for the study was 144 vocational administrators.

Administrators were asked to provide individual demographic information and also to rate their leadership styles and overall leadership effectiveness. In addition, each administrator was asked to select three vocational teachers with whom they work to participate. The three followers selected by the administrator each completed a rater form on their perception of the administrator's leadership style and leadership effectiveness.

According to research conducted by the National Center for Research in Vocational Education (NCRVE), when ratees (administrators) select their own raters they select individuals that know them well (Moss, Lambrecht, Jensrud, &

Finch, 1994a). When this is done the credibility of the rater is established in the administrator's mind and the administrator will be more likely to accept any findings. Last, through a review of empirical research, NCRVE found "that friendship does not bias evaluations" (Moss, et al., 1994a, p. 43).

For this study, questionnaire response rate was set at 60 percent for administrators and their corresponding raters. Although, no standard response rate was stated in the literature, several authors suggested rates for mailed surveys which they felt provided a study with adequate returns to insure representation of the respondent group (Ary et al., 1990; Babbie, 1983; Dillman, 1978). While the literature regarding response rate varied, Babbie (1983) suggested that a 50 percent response rate for a mailed survey was adequate. Dillman (1978) stated that the response rate to mailed questionnaires was generally lower than when interview methods were used. He went on to state that in the general public, a response rate of 60 to 75 percent to a mailed questionnaire could be expected. According to Ary et al. (1990), a response rate of 75 to 80 percent was a reasonable expectation for a mailed questionnaire. Ary added "if, after follow-up attempts, response rate falls below about 75 percent, the researcher should try to contact the nonrespondents to learn something of their characteristics as well as obtain their responses" (p. 432).

### Instrument

In this study, the dependent or criterion variables were rated effectiveness by self and rated effectiveness by others. The independent or predictor variables were leadership style, gender, and position.

In order to measure leadership style and leadership effectiveness, the Multifactor Leadership Questionnaire (MLQ) Form 5X developed by Bernard M. Bass and Bruce J. Avolio (1991) of the Center of Leadership Studies at State University of New York-Binghamton, was selected for use in this study. Bass, director of the center, granted permission to use the instrument for research purposes and provided the most current version of the instrument. (See Appendix A.) There are two different forms of the MLQ. One is a "self-rater" form, used by administrators, and the other is a "rater" form (for others to rate the leader), used by teachers in this study.

The MLQ identified leadership styles and organizational outcomes. It revealed three primary constructs of leadership: transformational, transactional, and laissez-faire, and the nine factors that made up the constructs. Leader effectiveness was an organizational outcome measured by the instrument and assessed in this study. Satisfaction and extra effort, two additional outcome measures included on the instrument, were not included since this study's focus

was limited to effectiveness. Biographical questions from the MLQ were omitted from the instrument since they were not applicable to educators. For the purposes of this study, additional questions were included on the lead page of the administrator questionnaire to collect individual demographic information. This information was not collected from the raters.

Self-Rating Form [Multifactor Leadership Questionnaire (Form 5X -- Self) or MLO 5X-S].

The MLQ 5X-S identified each administrator's self-perception of his or her own leadership behaviors. Each vocational administrator was asked to complete a self-rating form. According to Bass and Avolio (1990), the demonstrated reliability of the self-rating form included alpha reliability coefficients for each of the 9 factors scales, ranging from .60 to .92. They reported test-retest reliabilities ranging from .44 to .74.

Other-Rating Form [Multifactor Leadership Questionnaire (Form 5X -- Rater) or MLO 5X-R].

The MLQ 5X-R provided a description of leadership as perceived by a follower or other rater. Each participating administrator was asked to select three vocational teachers to rate him or her as a leader. The rater(s) responded to the questions on the instrument with a focus on the administrator who asked them to complete the form. Bass and Avolio (1990) stated that alpha reliability coefficients for

the 9 subscales ranged from .77 through .95. With test-retest reliabilities ranging from .52 to .85, the author recommended using followers ratings "for research purposes due to the higher reliabilities" (p. 21). They have found "leaders tend to inflate their ratings in comparison to those received from followers" (p. 21).

### Demographics

Demographic information was obtained from each administrator to provide a descriptive profile of the population. A lead page was attached to the self-rater instrument to collect this information. The demographic factors included were gender, age, race, number of years of administrative experience, and position (line or staff).

### Data Collection Procedures

Packages mailed to the selected vocational administrators included a cover letter and four envelopes. One envelope was labeled "Leadership Survey -- Vocational Administrator". It included a copy of the self-rater form (MLQ 5X-S) and a pre-addressed, stamped return envelope. The three other envelopes were labeled: "Leadership Survey -- Others". Each of these envelopes included a copy of the rater form (MLQ 5X-R) and a pre-addressed, stamped return envelope. Directions were included asking the vocational administrators to randomly select three vocational teachers and give each an envelope marked Leadership Survey -- Others. Appendix B includes copies of the cover letters and lead

pages which accompanied the instrument, as well as follow-up letters. Rating forms were numerically coded to maintain confidentiality, and to link leader and rater responses. All rating forms were returned directly to the researcher in individual, pre-addressed, stamped return envelopes.

To maximize returned responses, Dillman's (1978) Total Design Method (TDM) for survey research was employed. This involved following up initial questionnaire requests with "reminders" to the respondent in a sequential and timely manner. The initial packet mailing followed TDM suggestions for the cover letter wording, survey folding, and return envelopes. One week after the initial packets were mailed, reminder postcards were mailed to everyone. Three weeks after the initial mailing, a follow-up packet was mailed to each nonrespondent or slow respondent with the appropriate questionnaires included. A third or final mailing as suggested by Dillman was not possible since public schools were dismissed for summer break and nonrespondents could not be reached.

#### Data Analyses

Three statistical procedures were used to analyze the data collected. The three statistical tools used were correlation, *t*-tests, and multiple regression. The mean of the other-ratings corresponding to each administrator was calculated. In most instances, there were three other-ratings received for each administrator; however, in some

situations there were one or two other-ratings for an administrator. For any nonresponse item on the questionnaire, the mode of the other items comprising the particular subscale was used.

Pearson Product-Moment correlations were calculated between administrators' self-ratings of style and their self-ratings of leadership effectiveness. Also, Pearson Product-Moment correlations were calculated between other-ratings of administrators' style and other-ratings of leadership effectiveness. To test for gender differences between leadership style subscales, t-tests were calculated. Multiple regression analysis was used to predict the effect of leadership style, gender, and position on perceived effectiveness. Correlation, t-tests, and multiple regression analyses are described in further detail in the following subsections.

#### Descriptive Analyses

Descriptive statistics calculations defined the general characteristics (gender, age, race, years of experience, position) of the vocational administrator population. Descriptive statistics included frequencies, percentages, and mean scores

#### Correlation Matrix

Pearson correlation coefficients were calculated between the nine leadership factors and effectiveness. In the matrix, "no distinction is [*sic*] made between an independent

and a dependent variable. Instead the interest is in the relation [or association] between the two variables" (Pedhazur et al., 1991, p. 409). The correlation coefficient reflected the linear relationship between two variables and was only used for descriptive purposes. Data from the matrix was used to answer research question one.

#### t-test

Two-sample t-tests were calculated to compare gender differences in mean ratings of leadership styles and leadership effectiveness (Howell, 1992). Both self-ratings and other-ratings were analyzed to answer research question two.

#### Multiple Regression Analysis

To predict from the independent variables (leadership style, gender, and position) the leadership effectiveness of vocational administrators, stepwise multiple regression was used. This procedure was done to assess the contributions of each independent variable. Both continuous and categorical independent variables were included. Also, if two or more variables were determined to be predictive of leadership effectiveness, any interaction of the respective variables' effect on the dependent variable was tested. In multiple regression, the prediction equation was

$$Y' = a + b_1X_1 + b_2X_2 + \dots + b_kX_k$$

where

Y' = predicted score on the dependent variable

a = intercept

$b_1$  to  $b_k$  = regression coefficients associated with the independent variables

$X_1$  to  $X_k$  = independent variables (Pedhazur, 1982, p.46).

Multiple regression was used to answer the third research question. The regression equations were:

$$Y'_{\text{effectiveness self}} = a + b_1X_{\text{transformational}} + b_2X_{\text{transactional}} + b_3X_{\text{laissez faire}} + b_4X_{\text{gender}} + b_5X_{\text{position}}$$

$$Y'_{\text{effectiveness others}} = a + b_1X_{\text{transformational}} + b_2X_{\text{transactional}} + b_3X_{\text{laissez faire}} + b_4X_{\text{gender}} + b_5X_{\text{position}}$$

A stepwise selection procedure was used for entry of the independent or predictor variables to determine the variance or effect of each one on the dependent variables. There was no preconceived theory on which to base the order of variable entry into the prediction equation. In stepwise regression, the variable with the highest zero-order correlation entered the equation first, and the entry of any other variables was based on their contribution to the incremental change in  $R^2$  while considering those variables already in the equation. The presence of variables in the prediction equation accounted for the explained variance.

For the regression analysis,  $R^2$  is the meaningful term since it indicates "the proportion of variance of Y accounted

for by X" (Pedhazur, 1982, p. 41). In this predictive study, the regression model was applicable due to the categorical and continuous predictor variables included in the equation.

#### Chapter Summary

An ex post facto design was used for this study. A total of 144 vocational administrators in Virginia were asked to participate. Each of the administrators were asked to select three vocational teachers to act as "other" raters. Two forms of the MLQ Form 5-X were used: self-rater and rater (others). The instrument indicated ratings of the behaviors comprising the three leadership styles (transformational, transactional, or laissez-faire) and each vocational administrator's perceived leader effectiveness. Additional demographic information (gender, race, age, position, years of administrative experience) was collected to describe the participant group. Following collection of the data, correlations, t-tests, and multiple regression were used to analyze the data.

## Chapter Four

### Findings

The study results are reported in this chapter. First, a description of the questionnaire response is given. Second, a description of the response group is presented. Third, the data analysis findings in response to the three study research questions are presented.

#### Questionnaire Response

Questionnaire packets which included one questionnaire for the administrator and questionnaires for the three corresponding raters, along with pre-addressed, stamped return envelopes, were mailed to 144 vocational administrators in Virginia. One week after the initial packets were mailed, a follow-up reminder postcard was mailed to each administrator. After three weeks elapsed, self-rating questionnaires had been received from 74 administrators along with 161 other-ratings. Three weeks after the initial mailing, follow-up packets were mailed to 105 administrators. For administrators who had already returned self-rating questionnaires, their follow-up questionnaire packets only included copies of questionnaires for other-ratings that still needed to be completed and returned. An accompanying letter explained what was needed. A total of 27 more self-rating and 101 other-rating questionnaires were returned.

When questionnaire responses were examined, several unique situations were noted that reduced the number of vocational administrators in the sample. One administrator had been counted three times since he held the role of vocational administrator in three school systems; consequently, he was counted only once in the findings. One administrator was out of the office for a prolonged illness with no expected date of return. Another administrator had retired and moved to another state. One administrator had moved to accept a superintendent's position in a different school system. Another administrator had only been in the position for three months at the time of the survey and did not feel qualified to complete the study, or have others rate her. One administrator responded that he had no direct involvement with vocational teachers, having left vocational responsibilities up to the building level principal. Another administrator responded that his vocational responsibilities were such a small portion of his duties as school principal that he did not feel the study was applicable to his role. Finally, two administrators indicated that they were not able to participate due to time constraints. Based on these situations, the eligible population of vocational administrators was reduced to 134.

Of the eligible population of administrators, responses were received from 101 for a response rate of 75%. A total of 33 administrators (25%) failed to respond. This

information is presented in Table 1. After receiving an acceptable minimum response rate of 75 percent and with the closure of school for summer vacation, nonrespondents were not contacted.

The study included both self-ratings by administrators and ratings by others. Each administrator was thus requested to have three teachers rate him or her. Of the 402 responses, which would account for 100% response rate for others, 262 completed questionnaires were returned with a response rate of 65%. One administrator responded who had only two vocational teachers with whom she worked, thus only two ratings could be expected. Four nonresponding and one ineligible administrator had others submit completed questionnaires rating them, but they did not complete self-ratings. Four administrators completed self-rating questionnaires, but no other-ratings were received for them. Two other-ratings received were not usable due to insufficient responses to questions. A total of five administrators did not complete self-ratings but had other-ratings. Of these five, two administrators each had 2 raters and three administrators each had 3 raters.

The majority of administrators had three ratings from others returned. In some instances, one or two raters provided an administrator's profile. Raters' responses for each factor were averaged to arrive at 102 composite

Table 1

Responses to the Questionnaire

Respondents	Administrators		Others	
	N	Percent	N	Percent
Total Population	144		432	
Non-Eligible	10		30	
Eligible Population	134		402	
Number of Responses	101	75	262	65
Non-usable Responses			2	
Usable Responses	101		260	
Non-responses	33	25	140	35
Total Percentages		100		100

Note. Percentages are based on eligible population.

administrator ratings. The 102 composite other-ratings were used for data analysis.

#### Description of the Respondent Group

Cross-tabulations were conducted to explain the demographic composition of the vocational administrators responding to the questionnaire. Usable responses were received from 101 administrators. From the 101 usable administrator self-responses, 36 administrators were female and 65 were male (Table 2).

Table 2 presents the ethnic composition of the sample. There were 10 (10%) black, 1 (1%) native American, and 89 (89%) white administrators.

Table 3 provides a breakdown of administrators by position. Line positions were held by 30 administrators or 30%, whereas 71 or 70% of the administrators held staff positions. Twenty-eight of the 71 staff administrators were female and 43 were male. Twenty-two of the line administrators were male and 8 were female.

Administrator age ranged from 23 to 64 years with an average age of 49.80 for male administrators and of 47.72 for female administrators. The majority of both male and female administrators were in the 46 to 55 year category. This information is presented in Table 4.

Table 5 presents the number of years respondents had been employed as vocational administrators or supervisors. Years ranged from 0 to 35 years with an average of 15.84

Table 2

Distribution of Vocational Administrators by Race and Gender

Race	Gender					
	Male		Female		Total	
	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Black	7	11	3	8	10	10
Asian						
Hispanic						
Native American			1	3	1	1
White	57	89	32	89	89	89
Other						
Missing data	1				1	
Total	65	100	36	100	101	100

Note. Each cell is divided to show the number of administrators and the respective percentage.

Table 3

Distribution of Vocational Administrators by Position and Gender

Position	Gender					
	Male		Female		Total	
	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Line	22	34	8	22	30	30
Staff	43	66	28	78	71	70
Total	65	100	36	100	101	100

Note. Each cell is divided to show the number of administrators and the respective percentage.

Table 4

Vocational Administrator Age Distribution by Gender

Age	Gender				
	Male		Female		Total
	<i>n</i>	%	<i>n</i>	%	<i>N</i>
< 25 years			1	3	1
25 - 35 years	1	2	1	3	2
36 - 45 years	13	22	8	24	21
46 - 55 years	31	52	18	55	49
56 - 65 years	14	24	5	15	19
Missing data	6		3		9
Total	65	100	36	100	101
Mean	49.80		47.72		
<i>SD</i>	7.02		8.14		
Minimum	28		23		
Maximum	62		64		

Table 5

Distribution of Years of Experience as a Vocational Administrator or Supervisor by Gender

Years of Experience	Gender				
	Male		Female		Total
	<i>n</i>	%	<i>n</i>	%	<i>N</i>
0 - 5 years	10	17	11	32	21
6 - 10 years	8	13	6	18	14
11 - 20 years	23	38	14	41	37
21 - 30 years	18	30	2	6	20
31+ years	1	2	1	3	2
Missing data	5		2		7
Total	65	100	36	100	101
Mean	15.84		11.32		
SD.	8.77		8.09		
Minimum	0		1		
Maximum	35		34		

years for male administrators, and 11.32 years for female administrators. The largest percentage of both male and female administrators was in the 11 to 20 year experience category.

#### Multifactor Leadership Questionnaire (MLQ) Reliability

To insure understanding of the three leadership constructs and the nine respective factors (subscales), as well as the organizational outcome, descriptors are included in Table 6. Estimations of internal consistency (Cronbach alpha) were calculated for each of the subscales comprising the three leadership constructs in the two MLQ forms: self and other. Reliabilities are presented in Table 7. On the self-rating instrument, reliability coefficients ranged from .50 on attributed charisma (AC) to .76 on inspirational leadership (IL). The reliability coefficients on the other-rating instrument were higher overall with a range of .81 on management-by-exception-active (MBEA) to .93 on inspirational leadership (IL) and effectiveness.

#### Number of Raters

In the Multifactor Leadership Questionnaire (MLQ) manual (Bass & Avolio, 1990), no specific recommendation is provided for how many raters should evaluate a leader. The MLQ has been used in leadership development programs with a varied range of raters. While the literature varied on the number of raters needed, Bass and Avolio (1990) recommended that,

Table 6

Descriptors for MLQ Form 5X Leadership Factors and Organizational Outcome

<u>Labels</u>	<u>Descriptors</u>
<b>Transformational</b>	
Attributed Charisma (AC)	- Attracts followers; visionary
Idealized Influence (II)	- Has respect & trust from others
Inspirational Leadership (IL)	- Projects optimism
Intellectual Stimulation (IS)	- Encourages new ideas
Individualized Consideration (IC)	- Gives personal attention to others
<b>Transactional</b>	
Contingent Reward (CR)	- Exchanges rewards for performance
Management-by-Exception	
-Active (MBEA)	- Monitors actively, intervenes only if a problem arises
-Passive (MBEP)	- Becomes involved only if problem arises, no plans for monitoring
<b>Nonleadership</b>	
Laissez Faire (LF)	- No involvement/interaction
<b>Outcome</b>	
Effectiveness (EFF)	- by group performance - by meeting job-related needs of followers - by meeting organizational requirements

Note. Psychometric statistics and reliability data of the MLQ may be found in Bass & Avolio (1990).

Table 7

Cronbach's Alpha Reliability Coefficient for Multifactor  
Leadership Questionnaire (MLO) Subscales

MLQ Subscales	# items	Self <sup>a</sup> $r_{xx}$	Others <sup>b</sup> $r_{xx}$
Transformational			
Attributed Charisma (AC)	8	.50	.87
Idealized Influence (II)	10	.72	.88
Inspirational Leadership (IL)	10	.76	.93
Intellectual Stimulation (IS)	10	.74	.90
Individualized Consideration (IC)	9	.69	.90
Transactional			
Contingent Reward (CR)	9	.76	.84
Management-by-Exception			
-Active (MBEA)	7	.62	.81
-Passive (MBEP)	7	.71	.87
Non-Leadership			
Laissez faire (LF)	8	.54	.86
Outcome			
Effectiveness (EFF)	4	.74	.93

Note. <sup>a</sup>N = 101 self-rating. <sup>b</sup>N = 102 composite other-ratings.

when using the MLQ, at least three raters should be included if MLQ individual results are shared with the leaders rated.

To insure there was not excessive variability in MLQ ratings, differences among mean ratings for the subscales were tested using analysis of variance (ANOVA). Specifically, an ANOVA test (Howell, 1992) was conducted on the mean of each factor's composite rating to determine if a significant difference existed according to the number of raters. The mean differences of one to three raters was not significantly different for attributed charisma, idealized influence, inspirational leadership, intellectual stimulation, individualized consideration, contingent reward, management-by-exception-active, management-by-exception-passive, transformational leadership composite, transactional leadership composite, and effectiveness.

There was a significant difference between the number of raters for the leadership style laissez faire ( $F = 3.67$ ,  $p = 0.03$ ). In an effort to explain this difference, a multiple comparison test was done. Fisher's LSD revealed a significant difference between the means of one rater and three raters. The significance of this finding is addressed when the leadership style means are presented in the descriptive analysis of the constructs. Table 8 includes the results of the rater analysis.

Table 8

Analysis of Variance of Laissez faire (LF) by Number of Raters

Category	n	M	F Ratio	Prob.
1 Rater	8	1.08	3.67	0.03*
2 Raters	30	0.71		
3 Raters	64	0.59		

Multiple Comparison Test, Fisher's LSD, of Laissez faire (LF)

Mean	Category		
	3	2	1
0.59	3		√
0.71	2		
1.08	1	√	

Note: √ = Pairs of raters significantly different at the .05 level.

\*p ≤ .05

### Analyses of Data

The *Number Cruncher Statistical System* (Hintze, 1990) computer program was used for data analysis. All analyses were conducted on responses from both the self-rating and the other-rating MLQ. Descriptive statistics and correlation analyses were calculated to determine relationships between leadership styles and effectiveness to answer research question one. For research question two, gender differences were tested using *t*-tests for each of the 9-subscales within the leadership styles. Finally, regression analysis was conducted to predict leadership effectiveness in answering research question three.

#### Descriptive Analysis of MLQ Constructs

In order to determine the degree to which vocational education administrators use perceived transformational, transactional, and laissez faire leadership behaviors, the nine factors (subscales) comprising the three constructs were assessed using descriptive statistics and correlation. Means, standard deviations, and differences between items on both self- and other-rating forms of the MLQ are provided in Table 9. Descriptive statistics of the composite leadership styles are included in Table 10. The respondents used a rating scale 0 to 4, with 0 being *not at all*, 1 being *once in awhile*, 2 being *sometimes*, 3 being *fairly often*, and 4

Table 9

Means and Standard Deviations of MLO Leadership Factors

Factors	Self <sup>a</sup>		Others <sup>b</sup>		Difference
	M (SD)	M (SD)	M (SD)	S - O <sup>c</sup>	
Transformational					
AC	3.03	(0.38)	3.13	(0.52)	-0.10
II	3.33	(0.38)	3.07	(0.49)	0.26
IL	3.34	(0.38)	3.21	(0.51)	0.13
IS	3.05	(0.40)	2.74	(0.54)	0.31
IC	3.23	(0.40)	2.93	(0.55)	0.30
Transactional					
CR	2.29	(0.66)	2.11	(0.64)	0.18
MBEA	1.44	(0.58)	1.38	(0.58)	0.06
MBEP	0.65	(0.47)	0.70	(0.56)	-0.04
Non-Leadership					
LF	0.55	(0.384)	0.66	(0.51)	-0.11

Note. Scores range from not at all (0) to frequently, if not always (4). AC = Attributed Charisma, II = Idealized

Influence, IL = Inspirational Leadership, IS = Intellectual Stimulation, IC = Individualized Consideration, CR =

Contingent Reward, MBEA = Management-by-Exception-Active,

MBEP = Management-by-Exception-Passive, LF = Laissez Faire.

<sup>a</sup>Self N = 101 ratings. <sup>b</sup>Other N = 102 composite ratings.

<sup>c</sup>S - O =  $M_{\text{Self}} - M_{\text{Others}}$ .

Table 10

Means and Standard Deviations of MLO Leadership Styles

Styles	Self <sup>a</sup>		Others <sup>b</sup>		Difference
	<i>M</i> ( <i>SD</i> )	<i>M</i>	( <i>SD</i> )	<i>S</i> - <i>O</i> <sup>c</sup>	
Transformational	3.20	(0.32)	3.01	(0.49)	0.19
Transactional	1.46	(0.44)	1.45	(0.43)	0.01
Laissez faire	.55	(0.38)	0.66	(0.51)	-0.11

Note. Range of scores is not at all (0) to frequently, if not always (4).

<sup>a</sup>Self *N* = 101 ratings. <sup>b</sup>Other *N* = 102 composite ratings.

<sup>c</sup>*S* - *O* = *M*<sub>self</sub> - *M*<sub>others</sub>.

being *frequently, if not always* to indicate the frequency of the behavior.

Transformational leadership.

Attributed Charisma (AC) consists of 8 items on the questionnaire. Examples of the items associated with this factor are: "Makes personal sacrifices for the benefit of others," and "Goes beyond his/her own self-interest for the goal of our group." The mean for self-ratings was 3.03 and other-ratings 3.13 indicating most respondents felt they used and were perceived to use charisma fairly often.

Idealized Influence (II) is comprised on ten items on the questionnaire. Some examples are: "Talks to us about his/her most important values and beliefs," and "Displays conviction in his/her ideals, beliefs, and values." A 0.26 difference in the means of self-rating (3.33) and other-ratings (3.07) was determined.

Inspirational Leadership (IL) has 10 items on the questionnaire. Examples of the statements related to IL are: "Envisions exciting new possibilities," and "Talks optimistically about the future." The mean rating for self was 3.34 and 3.21 for other-ratings.

Intellectual Stimulation (IS) is comprised of 10 items. "Questions the traditional ways of doing things," and "Encourages me to express my ideas and opinions" are examples of IS behaviors. The mean for self was 3.05 and 2.74 for others.

Individualized Consideration (IC) has nine items. Examples of IC statements are: "Treats me as an individual rather than just a member of a group," and "Listens attentively to my concerns." The mean ratings for self and others are 3.23 and 2.93 respectively.

Transactional leadership.

Contingent Reward (CR) has nine relative items on the questionnaire. "Provides reassurance that we will overcome obstacles," and "Tells me what to do to be rewarded for my efforts" are two CR items from the questionnaire. The mean for self-rating was 2.29 and 2.11 for other-ratings. The rating of 2 means *sometimes*.

Management-by-Exception-Active (MBEA) items are represented by statements such as "Closely monitors my performance for errors," and "Spends his/her time looking to 'put out fires'." The mean for self was 1.44 and others was 1.38. The rating of 1 is defined as *once in awhile*.

Management-by-Exception-Passive (MBEP) means were much lower for both self and other-ratings. The mean for self was 0.65 and 0.70 for others. Statements such as "It requires a failure to meet an objective for him/her to take action," and "Tells me what I've done wrong rather than what I've done right" represent MBEP.

Laissez faire.

Laissez faire (LF) or nonleadership was represented by 8 items on the questionnaire. Examples of LF are: "Avoids

getting involved when important issues arise," and "Is absent when needed," and "Fails to follow-up requests for assistance." The self-rating mean for LF was the lowest of all with 0.55. The other-rating was also below one with a mean of 0.66. Thus, the significant difference between one and three raters revealed in the ANOVA and the multiple comparison test, Fisher's LSD, for laissez faire had an inconsequential effect since administrators were rated so low in laissez faire behaviors.

Table 9 displays the administrator mean ratings of the leadership factors for both self and others. The five transformational factors ranged from 2.74 and 3.34 which may be interpreted as administrators *fairly often* demonstrate these behaviors. Transactional factor means ranged from a low .65 (self) and 0.70 (others) on MBEP to 2.29 (self) and 2.11 (others) on CR which reflects *not at all* (0) to *sometimes* (3). Laissez faire means ranged from 0.55 (self) to 0.66 (other).

### Correlation

Correlation analysis was used to assess the degree to which vocational administrators use perceived transformational, transactional, and laissez faire leadership behaviors. Correlation assessed the perceived relationships between the nine subscales of the three leadership constructs and effectiveness. Pearson product-moment correlations were determined for the leadership factors and the two dependent

variables: effectiveness-self and effectiveness-others. The correlations represent the degree of the relationship between each of the nine leadership factors and the outcome of effectiveness.

Pearson product-moment correlations,  $r$ , between MLQ leadership factors and effectiveness for both self- and other-ratings are presented in Table 11. Correlation analysis revealed that subscales for transformational leadership (attributed charisma, idealized influence, inspirational leadership, intellectual stimulation, and individualized consideration) were significantly related ( $p \leq .05$ ) to perceived effectiveness for both self-ratings and other-ratings.

Transactional leadership subscales had lower correlations with effectiveness. However, contingent reward and management-by-exception-passive (MBEP) were significantly related to effectiveness by other-ratings. According to other-ratings, MBEP had a significant negative correlation with effectiveness. This means that as MBEP increases, effectiveness decreases. Also, as laissez faire increases, effectiveness decreases.

Intercorrelations between the nine leadership subscales were calculated and are shown in Table 12 for the self-ratings. As would be expected, the transformational leadership subscale items had strong positive correlations with each other. Likewise, transactional leadership subscale

Table 11

Pearson Product-Moment Correlations of Leadership Factors  
with Effectiveness

Leadership Factors	Effectiveness	
	Self Rating	Other- Ratings
Transformational		
Attributed Charisma (AC)	.24*	.76*
Idealized Influence (II)	.32*	.75*
Inspirational Leadership (IL)	.54*	.80*
Intellectual Stimulation (IS)	.50*	.75*
Individualized Consideration (IC)	.36*	.79*
Transactional		
Contingent Reward (CR)	.18	.38*
Management-by-Exception-Active (MBEA)	-.00	.10
Management-by-Exception-Passive (MBEP)	-.14	-.33*
Non-Leadership		
Laissez faire (LF)	-.14	-.34*

Note. \* $p \leq .05$ .

Table 12

Correlations Among the Dependent Variable and the MLO  
Leadership Factors for Self-Ratings

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	AC	II	IL	IS	IC	CR	MBEA	MBEP	LF	EFF
AC	--	.60*	.52*	.42*	.61*	.12	.02	-.16	-.16	.24*
II		--	.75*	.54*	.62*	.22*	.21*	-.18	-.17	.32*
IL			--	.65*	.66*	.18	.08	-.42*	-.33*	.54*
IS				--	.51*	.23*	.13	-.37*	-.24*	.50*
IC					--	.10	.06	-.25*	-.21*	.36*
CR						--	.58*	.21*	.19	.18
MBEA							--	.29*	.20*	-.00
MBEP								--	.59*	-.14
LF									--	-.14
EFF										--

---

Note. AC = Attributed Charisma, II = Idealized Influence, IL = Inspirational Leadership, IS = Intellectual Stimulation, IC = Individualized Consideration, CR = Contingent Reward, MBEA = Management-by-Exception-Active, MBEP = Management-by-Exception-Passive, LF = Laissez Faire, EFF = Effectiveness.

\* $p \leq .05$ .

items also had positive correlations with each other. However, the laissez faire subscale had a significant, positive correlation with two transactional subscales.

Table 13 indicates the other-ratings' intercorrelations of MLQ subscale items. Other-ratings showed high positive intercorrelations between transformational leadership factors. Of the transactional factors, MBEP was not significantly related to CR. However, contingent reward (CR) was related to all five transformational leadership subscales. The intercorrelations between subscale items is a concern because such multicollinearity prevents the determination of the unique effects of each subscale item.

Table 14 reflects the correlation between demographic variables, the three composite leadership style constructs, and perceived effectiveness for self-ratings. Composite leadership styles or constructs were created by collapsing the respective subscales. A significant positive correlation was determined between transformational leadership and effectiveness. A strong and significant correlation was determined between administrator's age and the number of years as an administrator.

Composite leadership style ratings as perceived by others are identified in Table 15. A significant positive correlation ( $r = .82$ ) was found between transformational leadership and effectiveness. Also, the demographic variables of age and number of years as an administrator were

Table 13

Correlations Among the Dependent Variable and the MLO  
Leadership Factors for Other-Ratings

	AC	II	IL	IS	IC	CR	MBEA	MBEP	LF	EFF
AC	--	.82*	.87*	.75*	.84*	.33*	.02	-.46*	-.42*	.76*
II		--	.88*	.87*	.87*	.44*	.15	-.37*	-.32*	.75*
IL			--	.86*	.88*	.44*	.04	-.51*	-.43*	.79*
IS				--	.85*	.45*	.12	-.27*	-.24*	.75*
IC					--	.49*	.12	-.37*	-.32*	.78*
CR						--	.37*	.07	.09	.38*
MBEA							--	.37*	.36*	.09
MBEP								--	.84*	-.33*
LF									--	-.34*
EFF										--

Note. AC = Attributed Charisma, II = Idealized Influence, IL = Inspirational Leadership, IS = Intellectual Stimulation, IC = Individualized Consideration, CR = Contingent Reward, MBEA = Management-by-Exception-Active, MBEP = Management-by-Exception-Passive, LF = Laissez Faire, EFF = Effectiveness.

\* $p \leq .05$ .

Table 14

Correlation Between the Demographic Variables, Effectiveness, and MLO Leadership Constructs from Self-Ratings

	Pos.	Gen.	Race	Age	Years	LF	TF	TA	EFF
Pos.	--	.12	-.08	.09	-.07	-.03	-.05	-.23	-.12
Gen.		--	-.00	-.13	-.25*	-.04	.18	-.02	.24*
Race			--	-.05	.00	.02	-.14	.22*	.13
Age				--	.66*	.00	.04	.02	.10
Years					--	.04	.19*	.22*	.13
LF						--	-.27*	.40*	-.14
TF							--	.04	.48*
TA								--	.04
EFF									--

Note. Pos. = Position, Gen. = Gender, Race = Ethnicity, Age = Administrator's Age, Years = Number of years as an administrator or supervisor, LF = Laissez Faire, TF = Transformational, TA = Transactional, EFF = Effectiveness

\* $p \leq .05$ .

Table 15

Correlation Between Administrator Demographic Variables, Effectiveness, and MLO Composite Leadership Constructs from Other-Ratings

---

	Pos.	Gen.	Race	Age	Years	LF	TF	TA	EFF
Pos.	--	.11	-.17	.10	-.07	-.16	.10	-.15	.10
Gen.		--	-.06	-.12	-.20*	.03	.04	.09	.00
Race			--	-.16	-.04	-.23*	-.12	-.22*	-.08
Age				--	.65*	.10	.05	.16	-.02
Years					--	.07	.13	.25*	.17
LF						--	-.37*	.53*	-.35*
TF							--	.15	.82*
TA								--	.13
EFF									--

---

Note. Pos. = Position, Gen. = Gender, Race = Ethnicity, Age = Administrator's Age, Years = Number of years as an administrator or supervisor, LF = Laissez Faire, TF = Transformational, TA = Transactional, EFF = Effectiveness

\* $p \leq .05$ .

significantly correlated. Laissez faire and transactional leadership had a strong, positive relationship which was significant. A significant negative correlation existed between laissez faire and effectiveness, meaning as effectiveness increases laissez faire style of nonleadership decreases.

Table 16 presents the correlations between demographic variables and leadership effectiveness. Although the correlations were rather low, a significant correlation was detected between gender and effectiveness for the self-rating group.

#### t-Test

The second research question asked whether there was a significant difference between male and female vocational administrators perceived leader effectiveness. In examining whether significant differences existed between male and female vocational administrators in their self- and others-perceived leadership effectiveness, two-tailed independent two-sample *t*-tests were computed. The previously conducted correlation analyses found a significant correlation between gender and effectiveness according to self-ratings. The *t*-tests provided further insight into the specific gender differences for each leadership style and the nine factor means. Both self perceptions and the perceptions of others were considered in the *t*-test analysis.

Table 16

Pearson Product-Moment Correlations of Administrator  
Demographic Variables with Leadership Effectiveness

Variables	<u>Effectiveness</u>	
	Self	Others
Position	-.12	.10
Gender	.24*	.00
Race	.13	-.08
Age	.10	-.02
No. of Yrs. as Administrator	.13	.17

Note. Gender was found to have a significant correlation with effectiveness in self-ratings.

\* $p \leq .05$ .

Table 17 shows the results from t-test analysis for self-ratings. With 99 degrees of freedom, intellectual stimulation had a computed *T*-value of 3.01, resulting in a significant *p* value of .00 at the .05 level of significance. The analysis also revealed a significant *p* value of .01 for effectiveness with *T*-value of 2.42.

The t-tests conducted on other-ratings revealed no significant differences with 95 degrees of freedom at the .05 significance level between the means of male and female administrators. The results are presented in Table 18.

#### Regression Analyses

The third research question examined whether administrator characteristics could be used to predict self- and others-perceived leadership effectiveness. In order to determine which administrator characteristics could predict effectiveness, stepwise regression was used, regressing leadership effectiveness on leadership style, gender, and position. A hierarchical regression procedure had been used in a number of studies' analyses of MLQ data (Waldman, Bass, & Einstein, 1987; Hater & Bass, 1988; Kirby, Paradise, & King, 1992). The stepwise regression procedure considered the power added by each independent variable in predicting effectiveness. The independent variables included in both regression models were leadership style composites (transformational, transactional, laissez faire), gender, and position.

Table 17

Results of t-Tests for Gender, Leadership Style Attributes and Effectiveness from Self-Ratings

Variables	Male n=65		Female n=36		T-value <sup>a</sup>	p <sup>*</sup>
	M	SD	M	SD		
Transformational	3.15	0.32	3.27	0.30	1.83	.06
AC	3.03	0.39	3.02	0.36	0.19	.84
II	3.30	0.35	3.38	0.41	0.98	.32
IL	3.29	0.38	3.43	0.35	1.78	.07
IS	2.96	0.36	3.21	0.42	3.01	.00*
IC	3.18	0.39	3.33	0.40	1.87	.06
Transactional	1.47	0.35	1.45	0.57	0.21	.82
CR	2.26	0.52	2.34	0.86	0.48	.62
MBEA	1.46	0.48	1.40	0.73	0.45	.64
MBEP	0.67	0.45	0.60	0.50	0.75	.45
Non-Leadership						
LF	0.56	0.42	0.53	0.31	0.41	.68
Outcome Variable						
EFF	2.95	0.40	3.17	0.48	2.42	.01*

Note. AC = Attributed Charisma, II = Idealized Influence, IL = Inspirational Leadership, IS = Intellectual Stimulation, IC = Individualized Consideration, CR = Contingent Reward, MBEA = Management-by-Exception-Active, MBEP = Management-by-Exception-Passive, LF = Laissez Faire, EFF = Effectiveness.

a: *df* = 99.

\**p* ≤ .05.

Table 18

Results of t-Tests for Gender, Leadership Style Attributes and Effectiveness from Other-Ratings

Variables	Male n=64		Female n=33		T-value <sup>a</sup>	p <sup>*</sup>
	M	SD	M	SD		
Transformational	3.01	0.45	3.05	0.50	.39	.69
AC	3.12	0.45	3.17	0.59	.50	.61
II	3.07	0.45	3.10	0.50	.28	.77
IL	3.20	0.48	3.27	0.50	.61	.53
IS	2.72	0.56	2.80	0.43	.75	.45
IC	2.94	0.49	2.92	0.61	.17	.86
Transactional	1.42	0.40	1.50	0.46	.85	.39
CR	2.08	0.60	2.16	0.69	.52	.60
MBEA	1.35	0.56	1.42	0.60	.55	.58
MBEP	0.64	0.52	0.74	0.60	.80	.42
Non-Leadership						
LF	0.63	0.52	0.67	0.49	.30	.76
Outcome Variable						
EFF	3.05	0.55	3.05	0.63	.00	.99

Note. AC = Attributed Charisma, II = Idealized Influence, IL = Inspirational Leadership, IS = Intellectual Stimulation, IC = Individualized Consideration, CR = Contingent Reward, MBEA = Management-by-Exception-Active, MBEP = Management-by-Exception-Passive, LF = Laissez Faire, EFF = Effectiveness.

a:  $df = 95$ .

\* $p \leq .05$ .

When self-ratings were used in the regression equation, transformational leadership and gender were found to be included, indicating that only transformational leadership style and gender could be used to predict effectiveness. The results are presented in Table 19. The coefficient of determination,  $R^2$ , was .2533, thus 25% of the variance was explained by gender and transformational leadership.

The stepwise regression results for administrator rating by others is presented in Table 20. Again, the independent variables of leadership style (transformational, transactional, laissez faire), gender, and position were entered into the stepwise regression analysis. Transformational leadership was the only variable which was retained. The coefficient of determination,  $R^2$ , was .6570. In other words, 66% of the variance was explained by transformational leadership.

#### Chapter Summary

The findings presented in this chapter reflect the primary research question of the relationship of gender and leadership style to perceived vocational administrator leadership effectiveness. The first section, questionnaire response, provides the response rate to the MLQ Form 5X for both self- and other-ratings and explains the unique situations affecting the eligible population. The response rate was 75% for administrators, and 65% for raters. For

Table 19

Administrator Characteristics That Predict Self-Perceived  
Leader Effectiveness

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Dependent Variable: Leader Effectiveness (self)

Variables	Standardized Estimate	T-value*	R-Square Change
Gender	0.15	1.7	0.023
Transformational	0.45	5.1*	0.197

R-Squared = .2533

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Note. \* $p \leq .05$ .

Table 20

Administrator Characteristics That Predict Others-Perceived  
Leader Effectiveness

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Dependent Variable: Leader Effectiveness (others)

Variables	Standardized Estimate	T-value*	R-Square Change
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Transformational	0.81	13.5	0.657
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R-Squared = .6570

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Note. \* $p \leq .05$ .

data analysis, 101 administrator and 102 composite other-ratings were used.

The second section focuses on a description of the respondent group of vocational administrators. The demographic elements included are gender, ethnicity, position, age, and number of years as an administrator or supervisor. Of the 101 administrators who returned completed questionnaires, 65 were male and 36 were female. White administrators comprised 89% and black administrators comprised 10%. Most administrators, 70%, held staff positions. Administrators' ages ranged from 23 to 64 years. Male administrators had held administrative positions for an average of 15.8 years, while female administrators averaged 11.3 years as administrators.

The third section addresses the three research questions of the study, along with a descriptive analysis of the MLQ constructs. The leadership behavior rated highest by both groups is inspirational leadership which also has the lowest standard deviation. The leadership construct with the highest mean is transformational. The correlation analysis reveals the relationships between the leadership factors, the leadership constructs, and the demographic variables. Results indicate that transformational leadership factors have a significant and positive relationship with effectiveness for both self- and other-ratings. Other-ratings show a significant, positive relationship with

effectiveness, and a significant, negative relationship between effectiveness and management-by-exception-passive and laissez faire. Positive intercorrelations were determined among the transformational leadership factors of self-ratings with even stronger positive relationships found in other-ratings. Positive intercorrelations were also determined among transactional factors. A significant positive correlation was determined between gender and effectiveness in self-ratings. Other-ratings revealed low correlations between demographic variables and effectiveness.

The *t*-test results reveal few differences between genders. Self-perceived *t*-test analysis have determined significant differences in intellectual stimulation and rated effectiveness. The *t*-tests reveal no significant differences among factors in other-ratings.

Multiple regression analysis has provided the following prediction equations: (1) Self-perceived effectiveness is best predicted by the variables gender and transformational leadership, and (2) Others-perceived effectiveness is best predicted by transformational leadership.

## Chapter Five

### Summary, Conclusions, and Recommendations

This study was designed to investigate effective leadership of vocational administrators. Chapter five presents information concerning this study in three sections. The first section is a summary of the investigation. The second section presents the conclusions. The third and final section presents recommendations for practice and for further research.

#### Summary

*Vocational education must begin its own transformation if it is to remain a viable form of education in the new environment. Leaders are needed who can point to new directions and who can influence others to believe and to follow. (Moss, Lambrecht, Jensrud, & Finch, 1994b, p. 2)*

#### Introduction

In 1990, Perkins II legislation initiated significant vocational education changes in response to changing workforce needs of the present and future society. Increased emphases on the integration of academic and vocational education, on the technical preparation of students, and on the local control of programmatic decisions were the most obvious changes. Local vocational administrators have the primary responsibility for interpreting these changes in federal legislation and insuring their implementation.

Effective leadership provided by the local vocational administrator is crucial to the successful implementation of educational change.

During times of change, an effective leader is especially important to the organization. To effectively lead and move others through the transformation of vocational education, the vocational administrator must be ready to creatively approach change and establish a climate of opportunity for everyone. The leader initiates a vision and motivates others to adopt the vision which may be thought of as the *process* of leadership (Moss, Lambrecht, Jensrud, & Finch, 1994a, 1994b). An effective leader is often judged more by the *property* of leadership, that is, the feeling or attitude followers have about their leader rather than actual tasks completed in the changing environment. Gaining trust and respect from followers is important to organizational and leader effectiveness. An effective leader strives to establish a collaborative work culture that recognizes each person's contribution to the organization. The effective vocational leader initiates a vision for change and motivates others to adopt the vision as their own.

#### Theoretical Framework

A leader identified during times of change often reflects the transformational leadership paradigm first proposed by Bass in 1985 (Van Ebron and Burke, 1992). The transformational leader initiates changes rather than

maintaining the status quo (Silins, 1992). The approach taken by the transformational leader to initiate change is quite different from the command and control approach traditionally taken by others. This newly recognized approach is more relationship oriented in that it considers the feelings and thoughts of followers. This leader-follower relationship includes open, two-way communication. The leader establishes a vision and through noncoercive, non-threatening means convinces others to adopt the vision. The leader seeks followers' knowledgeable ideas and creative thoughts, particularly if they differ from the way things have been done in the past. The leader nurtures and encourages the individual development of followers in such a way that they recognize their own self-worth within the organization and become leaders too. These relationships differ markedly from what typically occurs in traditional settings.

The transformational approach includes some traits traditionally considered to be more feminine leadership practices, e.g., individual consideration, inspiration, nurturing, etc.. Studies have shown that effective leaders have a balance of characteristics considered to be masculine and feminine (Bettin, Hunt, Macaulay, & Murphy, 1992; Eagly, Karau, & Makhijani, 1995; Hackman, Hills, Furniss, & Paterson, 1992). The time seems right in vocational education for selection and development of leaders who can

provide effective leadership during changing times, regardless of gender (Hill & Ragland, 1995). With the foregoing in mind, this study addresses both self- and others-perceived leadership effectiveness as a function of gender and leadership style.

### Purpose

The purpose of this study was to identify the degree to which vocational administrators use perceived transformational, transactional, and laissez faire leadership behaviors, and to determine whether these leadership behaviors differ between male and female administrators. The research also sought to determine which administrative characteristics could best predict perceived leadership effectiveness. In order to identify leadership style behaviors and effectiveness, both self-perception and the perception of others (followers) were considered, using the Multifactor Leadership Questionnaire (MLQ), an instrument founded on the theory of transformational leadership (Bass, 1985). More specifically, answers were sought to the following questions:

1. To what degree do vocational administrators use perceived transformational, transactional, and laissez-faire leadership behaviors?
- 2a. Which leadership style behaviors (e.g., charisma, intellectual stimulation, contingent reward, etc.) differ

between male and female vocational administrators for self-perceived leadership effectiveness?

2b. Which leadership style behaviors differ between male and female vocational administrators for others-perceived leadership effectiveness?

3a. What administrator characteristics (e.g., leadership style, gender, position) can be used to predict self-perceived leadership effectiveness?

3b. What administrator characteristics can be used to predict others-perceived leadership effectiveness?

#### The Sample

The study involved a limited sample of vocational administrators in Virginia and vocational teachers selected by the administrators. An accessible population of 134 administrators were invited to participate in the study, which provided a statewide perspective on the current vocational administrators' leadership behaviors and perceived effectiveness. Cross tabulations were performed in order to describe the demographic characteristics of the vocational administrators responding to the questionnaire. The descriptive items included ethnicity, gender, age, position, and the number of years as an administrator or supervisor. Of the 101 responding administrators, 65 were male and 36 were female. Thirty percent of the administrators held line positions and 70% of them held staff positions. Administrators' mean age was 49.80 for male administrators

and 47.72 for female administrators. Vocational administrators' tenure in the position of vocational administrator or supervisor averaged 11.32 years for female administrators and 15.84 for male administrators.

In addition to self-ratings, 260 usable other-ratings completed by teachers are included in the study analyses. The other-ratings received for each administrator were averaged, providing 102 composite administrator ratings by others.

### Instrumentation

The survey instrument used in the study was the Multifactor Leadership Questionnaire (MLQ) Form 5X. Two versions of the instrument were used: one for self-rating (MLQ-S) and one for other-ratings (MLQ-R). The MLQ anchors for leadership behaviors range from *not at all* (0) to *frequently, if not always* (4). The anchors for the outcome variable of effectiveness range from *not effective* (0) to *extremely effective* (4). Vocational administrators responded to the MLQ Form 5X-S and also provided additional personal information. Each administrator selected three vocational teachers to rate him or her by responding to the MLQ-R. Multiple raters' responses for each administrator were averaged to arrive at a composite rating for each administrator on each factor.

The MLQ measured leadership effectiveness and three leadership style constructs: transformational,

transactional, and laissez faire. These three constructs are comprised of nine behavioral subscales. The study included the independent variables of gender, leadership styles (transformational, transactional, laissez faire), and position. The dependent variables were self-perceived leadership effectiveness and others-perceived leadership effectiveness.

### Data Collection

Questionnaire packets were mailed to vocational administrators. The packets included a self-rating questionnaire and three questionnaires for others to complete, along with pre-addressed, stamped return envelopes for each questionnaire. One week after the initial mailing, a reminder postcard was mailed to each administrator. Three weeks after the initial mailing, a follow-up packet, which included the appropriate questionnaires still needing to be completed, along with pre-addressed, stamped return envelopes for each questionnaire, was mailed to each administrator who had not responded, or who had a teacher who had not responded. A total of 101 (75%) administrator self-ratings and 262 (65%) raters' responses were returned.

### Findings

Correlations, t-tests, and multiple regression analyses were used to identify, describe, and predict the relationships that exist between leadership style, gender,

and position (the predictor variables) and perceived effectiveness (criterion variable).

I used descriptive statistics and correlation to answer the first research question. Analyses revealed that with both self-perception and others-perception of leadership behaviors vocational administrators rated themselves ( $M = 3.20$ ,  $SD = 0.32$ ) highest on the transformational leadership construct and other-ratings agreed ( $M = 3.01$ ,  $SD = .49$ ). The laissez faire construct rated lowest for both self- ( $M = 0.55$ ,  $SD = 0.38$ ) and other-ratings ( $M = 0.66$ ,  $SD = 0.51$ ).

Correlations indicated the degree to which vocational administrators used perceived transformational, transactional, and laissez faire leadership behaviors. Correlation data reveal that transformational leadership subscales, as perceived by self and others, are significantly related to effectiveness. Transformational leadership is found to have a significant positive relationship with effectiveness in both self ( $r = .48$ ) and other-ratings ( $r = .82$ ). Management-by-exception-passive (MBEP) ( $r = -.33$ ) and laissez faire (LF) ( $r = -.34$ ) each show a significant negative correlation with effectiveness for other-ratings. As MBEP and LF increased, effectiveness decreased. The other-ratings indicate a significant positive relationship between the transactional factor of contingent reward and all five transformational factors. Other-ratings show significant, negative relationships between MBEP and all five

transformational factors. Thus, as transformational behaviors increase, MBEP decreases. Similarly, laissez faire has a significant, negative relationship with all five transformational factors as rated by others. However, other-ratings reveal a significant and positive relationship between laissez faire and management-by-exception-passive ( $r = .84$ ) and -active ( $r = .36$ ).

To answer research question two, I conducted *t*-test analyses. One transformational leadership factor, intellectual stimulation, along with effectiveness were significantly different between male and female administrators ( $df = 99$ ,  $p \leq .05$ ) according to self-ratings. For other-ratings, no differences were revealed between male and female administrators.

To answer question three, I employed regression analyses. Regression analyses, using a stepwise procedure, revealed that for self-rating data, transformational leadership and gender were significant contributors to the effectiveness variance. The other variables, transactional leadership, laissez faire, and position did not enter the analysis. The self-rating data revealed transformational leadership and gender as the best predictors of self-perceived effectiveness. The coefficient of determination was .2533; that is to say that 25% of the variance could be attributed to transformational leadership and gender.

Stepwise regression analysis was also used for other-ratings. Analysis revealed that transformational leadership was a predictor of others-perceived effectiveness. For others-perceived effectiveness, 66% of the variance could be attributed to transformational leadership. Unlike the self-ratings, gender did not contribute to the prediction of perceived effectiveness.

### Conclusions

This study has examined the relationships between leadership style, gender, and perceived leadership effectiveness. As was noted in chapters one and two, contemporary definitions of leadership reflect a multidimensional perspective (Finch & McGough, 1982). It is not just an individual's perception of him or herself as a leader, but also how others perceive him or her as a leader that is important. One dependent variable focused on self-perception and another dependent variable focused on others-perception of leadership. The study results confirm the multidimensional nature of leadership proposed by Finch and McGough (1982). While leading others through change, the multidimensional (self and others) perception of the administrator's perceived leader effectiveness is important to the success of efforts to reform and restructure education.

Transformational leadership was the predominant leadership style revealed in this study. This was noted for

both self-perception and the perception of others. The results of this study are similar to results reported by Kirby, Paradise, and King (1992) and Tucker, Bass, and Daniel (1992). They found transformational leadership to be the predominant form of leadership style for educational administrators. Tucker, Bass, and Daniel (1992) found that followers perceived transformational leaders as more effective than those who had other types of leadership styles. Kirby, Paradise, and King (1992) found significant correlations between transformational leadership factors and perceived effectiveness. The significant negative correlation between effectiveness and laissez faire ( $r = -.34, p \leq .05$ ) in other-ratings found in this study is similar to the correlation Kirby, Paradise, and King (1992) found ( $r = -.58, p < .001$ ). In this research study, the correlations for self- and other-ratings showed significant and positive correlations between transformational composite ratings and effectiveness. The significant positive correlation was stronger in other-ratings.

Most research studies which employ the MLQ have focused on others-perceptions of immediate supervisors. Subordinates appear to give more consistent and valid ratings than those reflected by self-ratings (Clark & Clark, 1992). The findings of this study were consistent with other studies conducted in educational settings and using others-perceptions.

Like those of Fierman (1990) and Hill and Ragland (1995), this study found that females (78%) were more likely to be in staff positions than line positions. In this study, position did not have a significant correlation with effectiveness in either self ( $r = -.12$ ) or other-ratings ( $r = -.10$ ). The low negative correlation may have been due to the high number or percentage of administrators working in staff positions. These positions are often considered as more limiting (e.g., less contact with teachers and students, less involvement with specific school concerns and problems) than line positions. Of the administrators in this study, 70% held staff positions. Overall, administrators were considered to be effective; however, the nonsignificant relationship between effectiveness and position may have been affected by the distribution of positions.

The *t*-test analyses generated findings for research question two. Others-perceived effectiveness revealed no significant mean differences in male and female administrators. The mean rating was the same (3.05) for both male and female administrators. Hackman et al. (1992), Heller (1992), and Hill and Ragland (1995) found that both genders had effective leadership strengths. Hackman et al. (1992) specifically found that transformational leadership included characteristics considered both masculine and feminine and that effective leadership included both types of gender behaviors. This study's findings support the

effective leadership findings reported by Hackman et al. (1992) which combined task-oriented and relations-oriented behaviors.

Self-ratings revealed significant differences according to gender in the transformational factor of intellectual stimulation and the organizational outcome of effectiveness. In terms of intellectual stimulation, females rated themselves higher than male administrators. Females also rated themselves higher on effectiveness.

Overall, females rated higher as transformational leaders than their male counterparts. Females rated higher on four of the five factors of the transformational leadership construct on both self- and other-ratings with a significant difference noted for intellectual stimulation in self-ratings. The NCRVE studies (Moss et al., 1994a, 1994b) found that females were rated higher by others on leadership attributes (factors) using the Leader Attributes Inventory.

For the dependent variable, self-perceived effectiveness, a significant difference was detected between male and female vocational administrators. Females rated themselves higher than their male constituents rated themselves on effectiveness. Studies conducted by Moss et al. (1994a, 1994b) found a significant difference with female vocational administrators rated higher on effectiveness by others using the Leader Effectiveness Index.

The t-test results for other-ratings did not detect any significant differences between male and female ratings. As with self-ratings, the ratings for females were higher on four of the five transformational leadership factors.

The results of this study were similar to the findings of Eagly, Karau, and Makhijani (1995) who conducted a meta-analysis of leadership studies related to gender. They also found that women and men do not differ in leader effectiveness as rated by others. These findings support results of the Bettin et al. (1992) study that determined that the way a leader behaves and the relationship of the leader with the followers are the most important factors for determining effectiveness. Despite any barriers that women may have faced in reaching administrative positions, they seem to be succeeding and performing effectively.

The Hackman et al. (1992) study found that transformational leadership requires characteristics considered to be both masculine and feminine. They found that effective leadership included both gender type behaviors. They concluded that no one gender (sex) seems to have the advantage, but rather those individuals using a combination of characteristics traditionally considered either masculine or feminine are considered most effective.

Two stepwise regression analyses were performed with one focusing on self-ratings and another focusing on other-ratings. From the self-ratings, it was found that both

gender and transformational leadership style could best predict perceived effectiveness. In other-ratings, only transformational leadership behaviors predict effectiveness. The Hater and Bass (1988) and Kirby, Paradise, and King (1992) studies, where only other-ratings were used, also found that transformational leadership was the best predictor of perceived effectiveness. This is an encouraging finding since it indicates that followers look to their administrator as a leader regardless of gender or the influence imparted by position. Tucker, Bass, and Daniel (1992) found that in higher education settings, transformational leadership was the predominant perceived style by subordinates. This study lends support to the notion that transformational leadership is also being practiced by secondary school level administrators in both staff and line positions.

#### Recommendations

Building on this study's findings and conclusions, recommendations are offered for both practice and research. The recommendations for practice are given first, followed by research recommendations.

#### Recommendations for Practice

The results of this study have particular relevance to persons at the local, state, and university educational levels who work with leadership development programs. The finding that others do not perceive a difference between male and female effectiveness supports the androgynous nature of

the effective leader and the development of a diverse population of leaders. These findings provide a rationale for making decisions relative to program development and program content.

The research findings are also valuable to superintendents at the local or state level who work with vocational administrators. After a clearer understanding is established of effective leadership factors (attributes), these factors may be included in pre-service leadership development programs for aspiring administrators. When conducting a self-analysis, an understanding of different styles of leadership helps aspiring administrators to begin modeling their behaviors in certain ways during their initial professional development.

Although common development elements could be established for all administrators, individualized development appears to offer the best opportunities for practicing vocational administrator improvement. In-service education opportunities offer continued professional development with an individual focus on improving behaviors linked to effective leadership. A matched comparison of each administrator's self-rating with the other-ratings focusing on the dyadic perspective would provide in-depth insight into an individual style of leadership. The individual profiles could be useful in creating an individualized leadership development plan. Through in-depth personal analysis, the

particular aspects of leadership which need improvement or development could be determined and assets could be recognized.

As Bennis and Nanus (1985) stated, leaders can be developed. Thus, after each individual's leadership profile has been determined, specific steps may be taken to address the individual's needs. An assessment tool, like the MLQ, for diagnosing practicing administrators' leadership behaviors can serve as a useful starting point for organizing individualized leadership development experiences. The assessment results would benefit high level administrators who need to be more aware of transformational leadership and more sensitive in terms of administrator selection.

#### Recommendations for Further Research

Several recommendations for future research emerge from this study's results. In the regression analysis, gender was not a consistent predictor of leadership effectiveness. There was instability in the prediction of effectiveness between self- and other-ratings. For future research, it might be of value to pursue this inconsistency qualitatively.

Based on previous studies, I anticipated that a significant difference would be found between male and female vocational administrators in other-ratings of effectiveness. Since this did not occur, I suggest adding a qualitative dimension to the study by interviewing administrators and their constituents (followers). The interviews would add

additional insight into others' perceptions of leadership behaviors and effectiveness. Through interviews with administrators and their followers, a more in-depth understanding could be gained about their perceptions of effective leaders and any differences that might surface based on gender. Likewise, the leader's perspective on interactions with followers could be examined more fully.

Transformational leadership was the style of leadership rated highest by both self- and other-ratings. While it was anticipated that, based on earlier studies, transformational leadership would rate highest, it was also expected that transactional leadership would be stronger. To confirm the validity of the ratings, transformational leadership of vocational administrators should be examined using multiple measures to determine if the results are consistent. Are the results received due to the particular instrument used, or are results consistent with multiple measures of transformational leadership and effectiveness?

This study investigated the variance of the number of raters for each administrator, and found that, with only one exception, there was no significant difference in administrator ratings according to the number of raters. Analyses conducted within group and between groups would determine if there is significant variance. Significant variance could indicate differences in individual perceptions of the interactions among leaders and followers and whether

there are different perceptions of the leader-follower relationship both within the group and between groups.

The study should be replicated with a larger population of vocational administrators, including three to five raters for each administrator. A nomination process of administrators who are perceived by others to be successful leaders would add to the findings. Increasing the number of individuals included would allow more sophisticated statistical analyses to be conducted. With the larger sample size, each of the nine factors could be entered in the regression analyses to indicate subscale items as predictors of perceived effectiveness. With a larger group, there is greater potential for variability to be detected in leadership styles.

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Appendix A

Permission to Use Questionnaire

March 1, 1995

Bernard M. Bass, Director  
Center for Leadership Studies  
Binghamton University  
P.O. Box 6000  
Binghamton, New York 13902

Dear Dr. Bass:

Thank you very much for providing me the opportunity to use the MLQ experimental form 5X for self and raters to use in my dissertation study of public school vocational administrators. Please find attached a signed agreement letter. Unfortunately, I do not have any financial assistance for my research, and am not able to make a contribution to the Center for Leadership Studies at this time. I will provide the raw data and results for you once the study is completed.

Thank you again for your interest in my study.

Respectfully yours,

Lillian H. Daughtry, Graduate Student

Curtis Finch, Committee Chair

The Multifactor Leadership Questionnaire authored by B. M. Bass and B. J. Avolio may be obtained by contacting Consulting Psychologists Press, Palo Alto, California.

Appendix B

Questionnaire Cover Letters, Lead Pages,  
and Follow-up Correspondence

112 Lane Hall, Blacksburg, Virginia 24061-0254

May 1, 1995

Name  
School Division  
Address  
City, State Zip Code

Dear Name:

I am a doctoral student in Vocational and Technical Education at Virginia Tech conducting research on vocational leadership under the direction of Dr. Curtis Finch. The purpose of this study is to investigate the leadership styles and rated effectiveness of vocational administrators in Virginia. The study results will be useful in the development of future vocational leaders.

As a vocational administrator in Virginia selected for this study, your participation is vital to its success. Along with your own participation, I would like for you to randomly select three vocational teachers with whom you work to participate in the study. Their participation is also essential.

Enclosed are two types of questionnaires. There is a blue questionnaire entitled "Leadership Survey -- Vocational Administrator" for you to complete. Three envelopes labeled "Leadership Survey -- Other" are enclosed which include questionnaires for the three teachers you select for participation to fill out. Along with the survey in the envelope is a pre-addressed, stamped envelope for returning the questionnaire. I know that you are very busy, but if possible, please return the survey by May 15, 1995, and encourage the teachers to do so also. Teachers should return their surveys using their own separate envelopes. The questionnaire will only take about 15 minutes to complete.

You may notice a number pre-coded on the questionnaire. This is a control number that will be used to determine which respondents require a follow-up letter and to provide anonymity. All responses will be strictly confidential. No individual or school division will be identified in the study.

Thank you for your commitment to education and development of future vocational leaders through your participation in this study. Your assistance and cooperation is appreciated. If you have any questions, please call me collect at (703) 951-7920 during work hours or the evening.

Respectfully yours,

Lillian H. Daughtry  
Principal Investigator

Curtis R. Finch  
Dissertation Chair

**LEADERSHIP SURVEY -- VOCATIONAL ADMINISTRATOR**

As a leader in vocational education, you recognize the importance of effective leadership. For continued support and development of vocational leaders, research is important. You have been selected to participate in a study of vocational leaders in Virginia. As a valued leader in vocational education, your assistance in this research endeavor will be greatly appreciated. Your participation in this study will not only contribute to the body of knowledge about leaders, but provide valuable information for the preparation of future leaders in vocational education.

Thank you for your participation and involvement in the advancement of future vocational education leaders in Virginia. Please know that your responses will be handled confidentially. If you would like a copy of the study results, please indicate by including a statement requesting information with your returned instrument.

Please return completed questionnaire to Virginia Tech, 112 Lane Hall, Blacksburg, Virginia 24061-0254 in the pre-stamped envelope provided by **May 15, 1995.**

**I. Please provide the following information.**

Today's Date: \_\_\_\_\_

After reviewing the definitions below, do you have a (check one)  
\_\_\_\_\_ line position, or a \_\_\_\_\_ staff position?

*For the purposes of this study, line and staff positions are defined as:*  
Line-position implies a direct line of authority over subordinates (e.g. high school principal, superintendent of schools).  
Staff-position implies having certain responsibilities in which someone serves as a consultant or coordinator to individuals but has no direct control over them (e.g. assistant high school principal, assistant superintendent, district-wide subject area supervisor or coordinator).

**II. Please mark the appropriate response on the lines provided.**

Gender:

\_\_\_\_\_ Male  
\_\_\_\_\_ Female

Race:

\_\_\_\_\_ Black  
\_\_\_\_\_ Asian  
\_\_\_\_\_ Hispanic  
\_\_\_\_\_ Native American  
\_\_\_\_\_ White  
\_\_\_\_\_ Other

Age: \_\_\_\_\_ years

Number of years as an administrator or supervisor: \_\_\_\_\_ years

**LEADERSHIP SURVEY -- OTHERS**

For the continued development of vocational leaders, research studies are important. You have been selected by your vocational administrator to participate in this research study on vocational leadership. Thank you for your participation and your contribution to the advancement of vocational education.

The information you provide is crucial to the study. You may notice a number pre-coded on the questionnaire. This is a control number that will be used to determine which respondents require a follow-up letter and to provide anonymity. All responses will be strictly confidential. No individual or school division will be identified in the study.

Thank you for your help in this research study. Please return the completed questionnaire to Virginia Tech, 112 Lane Hall, Blacksburg, Virginia 24061-0254 in the pre-stamped envelope provided by **May 15, 1995**.

*(Reminder Postcard)*

May 8, 1995

Last week a questionnaire requesting your participation in a study of vocational leadership was mailed to you. As a vocational administrator in Virginia selected for this study, your participation is vital to its success. The participation of the three vocational teachers you randomly selected is also essential.

If you and the teachers have already completed and returned the questionnaires, please accept my sincere thanks. If not, please complete them today.

If for some reason you did not receive the leadership questionnaire, or it was misplaced, please call me collect at (703) 951-7920 and I will send a questionnaire to you today.

Thank you for your help in this study of vocational leadership.

Respectfully yours,

Lillian H. Daughtry  
Principal Investigator

112 Lane Hall, Blacksburg, Virginia 24061-0254

May 22, 1995

Name  
School Division  
Address  
City, State Zip

Dear Name:

About three weeks ago I wrote asking for your participation in a research study focusing on vocational leadership. At this point, I have not received questionnaires back from you and some of the teachers you selected.

Your participation in this project is greatly appreciated. The study results will be useful in the development of future vocational leaders.

I am writing to you again to stress the importance of each questionnaire to the study. As a vocational administrator in Virginia selected for this study, your participation is vital to its success. Along with your own participation, the responses of the three vocational teachers you randomly selected to participate in the study are also essential.

For your convenience, an administrator questionnaire and additional teacher questionnaires are included. The number of teacher questionnaires included corresponds with the number of teachers whose questionnaires I have not received as of today. Would you please take a few minutes to fill out the "Leadership Survey -- Vocational Administrator" and encourage the selected teachers to return their questionnaire, "Leadership Survey -- Other," by May 30, 1995? It is very important that all surveys be returned.

Thank you for your participation in this research project. Your help is greatly appreciated. If you have any questions, please call me collect at (703) 951-7920 during work hours or in the evening.

Respectfully yours,

Lillian H. Daughtry  
Principal Investigator

**LEADERSHIP SURVEY -- VOCATIONAL ADMINISTRATOR**

As a leader in vocational education, you recognize the importance of effective leadership. For continued support and development of vocational leaders, research is important. You have been selected to participate in a study of vocational leaders in Virginia. As a valued leader in vocational education, your assistance in this research endeavor will be greatly appreciated. Your participation in this study will not only contribute to the body of knowledge about leaders, but provide valuable information for the preparation of future leaders in vocational education.

Thank you for your participation and involvement in the advancement of future vocational education leaders in Virginia. Please know that your responses will be handled confidentially. If you would like a copy of the study results, please indicate by including a statement requesting information with your returned instrument.

Please return completed questionnaire to Virginia Tech, 112 Lane Hall, Blacksburg, Virginia 24061-0254 in the pre-stamped envelope provided by **May 31, 1995.**

**I. Please provide the following information.**

Today's Date: \_\_\_\_\_

After reviewing the definitions below, do you have a (check one)  
\_\_\_\_\_ line position, or a \_\_\_\_\_ staff position?

*For the purposes of this study, line and staff positions are defined as:*

Line-position implies a direct line of authority over subordinates (e.g. high school principal, superintendent of schools).

Staff-position implies having certain responsibilities in which someone serves as a consultant or coordinator to individuals but has no direct control over them (e.g. assistant high school principal, assistant superintendent, district-wide subject area supervisor or coordinator).

**II. Please mark the appropriate response on the lines provided.**

Gender:

\_\_\_\_\_ Male  
\_\_\_\_\_ Female

Race:

\_\_\_\_\_ Black  
\_\_\_\_\_ Asian  
\_\_\_\_\_ Hispanic  
\_\_\_\_\_ Native American  
\_\_\_\_\_ White  
\_\_\_\_\_ Other

Age: \_\_\_\_\_ years

Number of years as an administrator or supervisor: \_\_\_\_\_ years

112 Lane Hall, Blacksburg, Virginia 24061-0254

May 22, 1995

*Name*  
*School Division*  
*Address*  
*City, State Zip*

Dear *Name*:

About three weeks ago I wrote asking for your participation in a research study focusing on vocational leadership. Thank you very much for returning your questionnaire and distributing the teacher questionnaires.

At this point, I have not received surveys back from all three of the teachers you selected. Would you please remind them of this research study and encourage them to return the surveys as soon as possible? For your convenience, I have included additional questionnaires, Leadership Survey -- Other, which corresponds with the number of teachers who have not responded. It is important that all surveys be returned.

Thank you for your participation in this research project. If you have any questions, please call me collect at (703) 951-7920 during work hours or the evening.

Respectfully,

Lillian H. Daughtry  
Principal Investigator

**LEADERSHIP SURVEY -- OTHERS**

For the continued development of vocational leaders, research studies are important. You have been selected by your vocational administrator to participate in this research study on vocational leadership. Thank you for your participation and your contribution to the advancement of vocational education.

The information you provide is crucial to the study. You may notice a number pre-coded on the questionnaire. This is a control number that will be used to determine which respondents require a follow-up letter and to provide anonymity. All responses will be strictly confidential. No individual or school division will be identified in the study.

Thank you for your help in this research study. Please return the completed questionnaire to Virginia Tech, 112 Lane Hall, Blacksburg, Virginia 24061-0254 in the pre-stamped envelope provided by **May 31, 1995**.

## VITA

Lillian Hill Daughtry graduated from Smithfield-Selma Senior High School in 1977. She received a B.S. degree in Animal Science and a B.S. degree in Agriculture Education in 1981 from North Carolina State University. She received an M.Ed. degree in Agriculture Education in 1985, also from North Carolina State University. In 1991, she received an Ed.S. in Educational Administration from East Carolina University. She received her Doctor of Philosophy degree in Educational Leadership and Policy Studies from Virginia Polytechnic Institute and State University (Virginia Tech) in 1995.

Lillian's teaching and administrative experience has been in the North Carolina public school system. Her professional experiences includes teaching vocational agriculture and horticulture in public secondary schools in Catawba and Lenoir Counties. After serving as a systemwide vocational assessment coordinator for disadvantaged and handicapped students, she worked as an assistant principal in both middle and high schools in Martin County. She was a part-time instructor at Martin Community College and Beaufort Community College teaching adult basic education, horticulture therapy, and plant propagation.

While pursuing her doctoral degree at Virginia Tech, Lillian worked on various externally funded projects involving tech prep evaluation, program articulation, and curriculum development. She also assisted in Leadership Development Workshops for new and aspiring vocational administrators throughout the Commonwealth of Virginia. She has served on technical assistance teams that visited Virginia high schools participating in the *High Schools That Work* initiative.

*Lillian H. Daughtry*