AN INVESTIGATION OF SCHOOL ADMINISTRATOR PERSONALITY
TYPE AND GENDER TO LEADER EFFECTIVENESS,
FLEXIBILITY, AND YEARS OF EXPERIENCE

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Linda K. Anderson, B.S., M.Ed.
Denton, Texas
August, 1995
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The purpose of this study was to determine if there was a relationship between four selected personality categories as measured by Myers-Briggs Type Indicator® (MBTI) and gender to leader effectiveness and flexibility as measured by Leader Behavior Analysis II Self-A® (LBAII Self-A) and years of experience in school administration. A review of literature traced leadership to the Situational Leadership II model utilized in this study. The model was based on selecting the appropriate leadership style for the individual situation and development level of followers.

MBTI® measured sixteen combinations of four personality types which included Extravert® or Introvert, Sensing or iNtuitive®, Thinking or Feeling, and Judging or Perceiving. Four types were selected for this study (ISTJ, ESTJ, INTP, and ESFJ). The LBAII Self-A® instrument measured leader effectiveness and flexibility.

The sample was 80 Texas school administrators in eleven school districts. Statistics utilized to test the hypotheses included Hotelling's $T^2$, Multiple Analysis of Variance, Analysis of Variance, and Multiple Regression.

Independent variables were gender and personality type. Dependent variables were leader effectiveness, flexibility, and years of experience in school administration.
Findings reported a significant difference in leader effectiveness scores of the ESTJ personality type. Additionally, Judging/Perceiving was a significant predictor of years of experience of school administrators.

In conclusion, a significant difference was found in leader effectiveness scores which showed that ESTJ personality types had higher scores. Another significant finding was Judging/Perceiving as a predictor of years of administrative experience. As years of experience increased, Judging (preference for order) increased as a personality variable rather than Perceiving (preference for spontaneity).

It was recommended that MBTI® and LBAII® be administered to school administrators as part of pre-service leadership training and for ongoing staff development. These instruments can be utilized as tools to help administrators understand personality type and effective leadership practices.
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CHAPTER I

INTRODUCTION TO THE STUDY

Background Information

Most people have a definite idea of characteristics which they feel leaders possess. However, the dynamic technological society in which we live has expectations of leaders which fit with a mindset of change rather than maintaining the traditional status quo which was at one time accepted.

No longer is the educational community operating in a vacuum of its own, but instead has joined forces with business and industry to provide the type of education and training that young people need for jobs of today and tomorrow. This major shift in philosophy from traditional schools that we have known to dynamic, risk-taking organizations requires a new kind of leader. This new leader embraces change and is skilled at developing partnerships with business and industry to provide school-to-work programs and non-traditional methods of delivering instruction to students in ways that are relevant and applicable to the workplace. The new educational leader places an emphasis on technology across the disciplines and is open to flexible scheduling of the school day and the school year to accommodate the curricular needs of a changing instructional program. This changing school atmosphere must have a visionary at the helm who can readily adapt to change and the increasing societal pressures for schools to take responsibility for the overall well-being of students.
This concern for the well-being of students does not stop at the gates of the school house but requires that educational leaders take full responsibility for the welfare of students even into the workplace before and after graduation.

National attention has been focusing on the need for major reform in public education including the Secretary's Commission on Achieving Necessary Skills (SCANS) reports of the United States Department of Labor in 1991 and 1992. SCANS is calling for a linkage of schools with the world of work creating a climate of change which is sweeping our country's educational institutions. Pursuant federal education legislation including the School-to-Work Opportunities Act of 1994, the Goals 2000: Educate America Act of 1994, the reauthorization of the Elementary and Secondary Education Act (ESEA) of 1994, and the Carl D. Perkins Vocational and Applied Technology Act which is up for reauthorization in 1995 calls for an actual restructuring of public education.

Therefore, it is fitting to take a close look at public school leadership and draw some conclusions regarding individual personality types of public school administrators and relationships of personality types to measured effectiveness and flexibility as leaders.

The changing climate of education, coupled with the demand for efficiency and effectiveness in schools, makes effective leadership critical. This researcher's goal is to focus on leadership in education, and more specifically to determine if there is a relationship between administrators' personality types and gender and three leadership variables: effectiveness, flexibility, and years of experience as a school administrator.
Statement of the Problem

Effective leadership draws upon the use of multiple skills. School administrators who are aware of leadership strengths and needs are better able to meet situational demands (Blanchard, et al., 1985). An understanding of natural differences, as defined by personality type, can contribute to this self-awareness (Myers and McCaulley, 1993). Having this self-awareness can help administrators understand leadership strengths associated with certain personality traits and recognize blind spots which can inhibit success as a leader.

Purpose of the Study

The purpose of this study is to determine if there is a relationship between four personality type categories as measured by Myers-Briggs Type Indicator® and gender to leader effectiveness and flexibility as measured by Leader Behavior Analysis II Self-A® and years of experience as a school administrator.

Determining the relationship between personality types of school administrators and leader effectiveness, flexibility and years of experience can help clarify, for school administrators, the skills needing development to become successful leaders. There are certain natural tendencies, personality traits, which cause individuals to act in a given way (Myers and McCaulley, 1993). These personality traits can translate into skills that bring forth effective leadership strategies. According to Barr and Barr, "Genuine leadership is measured by what the leader influences others to do. Leaders consistently influence people to go beyond their perceived limits to give energies and talents to accomplish organization or group goals" (Barr and Barr, 1994). Given the climate of change in public schools, an investigation of personality type of school administrators...
and its relationship to leader effectiveness, flexibility, and years of experience is of interest. Information obtained from this investigation can assist administrators in their development of continuous school improvement and personal improvement of those who are in leadership positions, providing vision for change.

**Hypotheses**

The following hypotheses are set forth to accomplish the purposes of this study.

**HO1:** There is no significant mean gender difference in Leader Behavior Analysis II (LBAII®) Effectiveness scores, LBAII® Flexibility scores, and years of experience in school administration.

**HO2:** There is no significant mean difference between the four categories of Myers-Briggs personality type in LBAII® Effectiveness scores, LBAII® Flexibility scores, and years of experience in school administration.

**HO3:** There is no significant relationship between Myers-Briggs subscales (EI, SN, TF, and JP) in predicting LBAII® Effectiveness scores.

**HO4:** There is no significant relationship between Myers-Briggs subscales (EI, SN, TF, and JP) in predicting LBAII® Flexibility scores.

**HO5:** There is no significant relationship between Myers-Briggs subscales (EI, SN, TF, and JP) in predicting years of experience of school administrators.

**Significance of Study**

School districts have undergone major restructuring, which has included downsizing central administration, with emphasis being placed on site-based decision making. Administrators are feeling the pressures of campus and
district accountability related to standardized achievement test scores which are indicators of student success. Restructuring efforts call for increased staff development which will help administrators recognize personality types and gain skills in responding appropriately to each given situation -- a characteristic of effectiveness as a leader (Zigarmi et al., 1991). This study recognizes the importance of personality type and natural tendencies to act in a given way. This study also recognizes that leadership skills can be developed which allow an administrator to be flexible and act appropriately in each given situation (Zigarmi et al., 1991). Through this action research, school administrators will complete the Myers-Briggs Type Indicator® and the Leader Behavior Analysis (LBAII®) instruments and receive feedback that will make them aware of personality type and strengths related to leader effectiveness and leader flexibility. Understanding normal developmental patterns and normal differences can help administrators capitalize on strengths and learn to recognize their blind spots so that appropriate adjustments can be made to practice effective leadership (Good et al., 1992). Additionally, this research will advance the theoretical knowledge of personality and its relationship to leader effectiveness, flexibility, and years of experience in school administration.

Definition of Terms

The following list of definitions will clarify the meaning of terms as they relate to the field of education and to this particular leadership study.

1. Blind Spots - Areas of preference which make up each individual's personality that inhibit understanding of appropriate actions in given leadership situations.
2. Development Level - Extent to which a person has the competence and commitment to accomplish a task describes that person's development level. The employee's development level determines how s/he responds to various leader styles.

3. Directive - Leader behavior characterized by one-way communication of telling followers what is to be done, as well as when and how tasks are to be accomplished.

4. Extravert® - Personality preference identified by Myers-Briggs Type Indicator (MBTI)® which identifies individuals who are outgoing, having a focus on the outer world of people and things and counterpart to Introversion.

5. Feeling - Preference identified by the MBTI® for making decisions based on values and person-centered reasons. Feeling is the counterpart to Thinking.

6. Introvert - MBTI® personality preference which is the counterpart of Extraversion®. Individuals with this preference prefer focusing on the inner world of thoughts and ideas.

7. iNtuition® - MBTI® preference of individuals who focus on possibilities and the future. iNtuition® is the counterpart to Sensing.

8. Judging - Individuals identified by the MBTI® who prefer an ordered approach to life and having things settled. This preference is the counterpart to Perceiving.

9. Leader Behavior Analysis II (LBAII®) - Instrument of twenty situations designed to provide an individual with information about leader effectiveness, leader flexibility, and leader style based on responses to the situations. LBAII® is based on the Situational Leadership II Model.
10. Leader Effectiveness - Dimension of leadership measured by the LBAII® that is based on the number of correct selections of leadership style for each of twenty situations on the instrument.

11. Leader Flexibility - Dimension of leadership measured by the LBAII® that is based on utilization of four different leadership styles depending on the situation and the developmental level of the follower.

12. Leadership - Capacity of school administrators to demonstrate certain effective behaviors of leadership style based on the situation.

13. Leader Style - Four dimensions that include: S1 for directing; S2 for coaching; S3 for supporting; and S4 for delegating.

14. Myers-Briggs Type Indicator (MBTI®) - Instrument which identifies a combination of four preferences for interests, values, and skills that form up to sixteen personality types based on these combinations. The four dimensions are Extraversion® or Introversion, Sensing or iNtuition®, Thinking or Feeling, and Judging or Perceiving.

15. Perceiving - Dimension of personality identified by the MBTI® which characterizes an individual who likes to be flexible and have a spontaneous approach to life keeping options open. This dimension is the counterpart to Judging.

16. Personality Type - Personality type is identified by preferences for certain values, attitudes, and skills which make up one combination of four dimensions identified by the MBTI®. There are up to sixteen combinations of the four dimensions which describe natural tendencies of individuals.
17. School Administrators - Campus level staff including principals and assistant principals and central level staff including superintendents, associate superintendents, directors, assistant directors, supervisors, and consultants.

18. Sensing - Dimension of personality preference measured by the MBTI® which describes people who focus on the present and concrete information which is taken in by the five senses. The counterpart to this preference is iNtuition®.

19. Situational Leadership® - Model of leadership developed through extensive research which depicts the amount of directive behavior and the amount of supportive behavior which a leader must utilize given the level of follower readiness and the individual situation.

20. Supportive Behavior - Behavior characterized by a leader utilizing two-way communication, socioemotional support, and acting as a facilitator to accomplish organizational goals.

21. Thinking - Dimension of personality preference measured by the MBTI® which describes a preference for decisions based on objectivity, logic, and analysis of cause and effect. The counterpart to this preference is Feeling.

Limitations

One limitation applies to this study. The study is limited to campus and central administrators in eleven North Central Texas school districts located in Tarrant and Dallas counties.

Delimitations

The following delimitations apply to this study.

1. The dimensions of personality are delimited in terms of sixteen combinations of four personality preferences as defined by the Myers-Briggs
Type Indicator®. However, this study requires a balanced design and will only utilize four combinations in which most school administrators fall, according to past research utilizing the MBTI®.

2. The dimensions of leadership are delimited to leader effectiveness and flexibility as measured by the Leader Behavior Analysis II (LBAII® Self-A) instrument.
CHAPTER II

REVIEW OF LITERATURE

Introduction to Literature Review

The literature on leadership is extensive dating back centuries. However, for the purpose of this study, the review will include sections which lead into the situational leadership® model which is utilized in this study. The chapter includes sections on: definitions of leadership, stages in the development of leadership, theories influencing situational leadership, explanation of Leader Behavior Analysis II (LBAII®), situational leadership® II premises, explanation of the Myers-Briggs Type Indicator (MBTI®), explanation of personality type preferences, and previous research utilizing LBAII® and MBTI®.

Definitions of Leadership

Leadership has been termed a "sophisticated concept" (Bass, 1990). Leadership has had as many definitions as there are individuals who define it (Bass, 1990). There are, however, similarities or certain strands which appear through the definitions yielding a somewhat cohesiveness to the overall concept. We look to leaders for vision, inspiration, guidance, protection, and other indications of constancy or direction upon which we can depend.

"Leader" appeared in the English language as far back as 1300 A.D. However, "leadership" did not appear until the first half of the nineteenth century and was related to the British Parliament and the control its members
exerted over the country (Bass, 1990). Leader has been defined as a focus of
group change, activity, or process. Cooley defined leader as "the nucleus of
tendency" (Bass, 1990). Blackmon in 1911 saw leadership as the "centralization
of effort in one person as an expression of the power of all" (Bass, 1990). In 1936,
J. F. Brown wrote that "the leader may not be separated from the group, but
may be treated as a position of high potential in the field" (Bass, 1990).

The concept of personality was studied by some of the early theorists to
explain why some persons have better leadership skills than others. A.O.
Bowden in 1926 correlated leadership with strength of personality and the
amount of influence one person has over others (Bowden, 1926). In that same
year, L.L. Bernard theorized that, "Any person who is more than ordinarily
efficient in carrying psychosocial stimuli to others and is thus effective in
conditioning collected responses may be called a leader. The leader must
possess prestige and know what stimuli will condition adequate responses for
his purposes and develop a technique for presenting these stimuli" (Bass, 1990).

This research study is based on the personality aspect of individuals in
leadership positions. Along this line of thought, in 1927 Bingham defined a
leader as a person who possesses the greatest number of desirable traits of
personality and character (Bingham, 1927). In 1929, Tead regarded leadership as
a combination of traits that enables an individual to induce others to accomplish
a given task (Tead, 1935). Bogardus in 1934 defined leadership as "a personality
in action under group conditions ... it is a personality and a group phenomenon;
it is a social process involving a number of persons in mental contact in which
one person assumes dominance over others" (Bogardus, 1918). This definition
differed slightly from his earlier work which described a leader as one who sets
forth exceptional behavior patterns in such a way that other persons respond to them (Bass, 1990).

The aforementioned theorists saw leadership as a one-way influence effect. They noted that leaders possess different characteristics from followers but did not account for the interactive characteristics of a leadership situation.

Some personality traits such as "social boldness" or one might say, being an extrovert, often characterize a leader. Note, however, that this trait is not necessarily a requirement of leadership (Bass, 1990). One who possesses this trait may not necessarily be considered a leader.

Another important point is that leadership does not necessarily emerge from a position which one holds. Position power is not a requirement of true leadership. The status accorded an individual based on position may help in getting a commitment to goals or in influencing others, but a leader may gain commitment to goals and influence others if the person is held in high esteem by the group. Esteem can be translated to personal power for the individual and occurs as an individual earns the respect of the group.

While discussing the importance of esteem and personal power to a leader, it is pertinent to briefly mention the concept of headship versus leadership. Leadership can include headship or the two can be completely differentiated. In 1960, Bass defined leadership broadly including the many ways it is exerted by leaders and heads and the sources of power that make leadership work (Bass, 1990). C.A. Gibb, in 1969, differentiated the two by defining headship in terms of an organized system and not spontaneous recognition by group members based on contribution to the group (Gibb, 1969). In headship there is no sense of shared feeling or joint action in pursuit of a goal.
Also, in headship, there is a wide social gap between group members and the head who strives to maintain social distance from the group. The leader's authority is spontaneously accorded by fellow group members and particularly by followers. Bass characterized heads as leading by the power of the position they occupy or their status as mentioned earlier (Bass, 1990). The position of this researcher is that leaders can be effective from status of the position held and from esteem which is an earned respect based on value to the organization, accomplishments, trust, and overall competence.

For the purpose of this study, leadership is defined as the capacity of school administrators to demonstrate certain effective behaviors of leadership based on a given situation which determines effectiveness of actions by followers or the group. Determination will be made as to whether personality type influences leader effectiveness and flexibility.

Stages in the Development of Leadership

There is no single understanding of the concept of leadership that is universal in nature. Focusing on the evolution of leadership, four stages of development surface which have been identified by J.M. Lipham (Griffiths, 1964). The four stages of development examine the concept of leadership as: (1) examination of the "great men" approach; (2) examination of the traits and characteristics of leaders; (3) examination of situational factors that affect leaders; and (4) observation of behaviors of individuals. However, literature does not as easily compartmentalize the stages. Rather, there is a definite interrelatedness.

According to the "great men" approach, there are relevant traits and characteristics reported. In looking at situational leadership, leader's behaviors
are observed and specific traits and attributes are studied (Burdin, 1989). G. Barry Morris combines the "great men" and "observation of the behaviors of leaders" as related stages because several leadership styles are identified (Burdin, 1989). M. Weber describes differences among the legal, traditional, and charismatic styles. R. J. Havighurst identifies three categories of great leaders: (1) the prophet; (2) the scholar-scientist; and (3) the social engineer (Havighurst, 1945). A.W. Halpin categorizes the democratic and authoritarian leadership styles (Halpin, 1956) Likert speaks of job-centered and employee-centered styles. (Likert, 1977).

The second leadership development stage is identifying traits and characteristics of leaders. The stage is outlined by R. L. Abrell who identified the most significant traits as (1) active participation; (2) creating a facilitating climate; (3) providing inspiration; (4) providing justice and fairness; (5) resisting unnecessary demands; (6) recognizing talent; and (7) practicing ethical integrity (Abrell, 1979).

The third stage is an analysis of situational factors. There has been extensive research by Paul Hersey and Ken Blanchard on situational leadership. They contend that effective leadership is based on selecting the appropriate leadership style for the individual situation and matching the development level of followers. According to Saville, leadership is described as a process of structuring, organizing, and guiding a situation so that all members of a group can achieve common goals with maximum economy and minimum of time and effort. Sergiovanni and Carver assess situational analysis as a process of interaction between the leader and the group. Situational analysis supports the
premise that effective leadership requires utilizing different leadership
techniques based on the particular group (Burdin, 1989).

The fourth stage which recognizes behaviors of individuals is expanded
to include effective leadership for quality education. This stage stresses effective
leadership approaches of "information giving, communication, and interaction
among the members" which brings into play the importance of teamwork for
achieving educational goals. There is also a dimension of futures thinking
which helps leaders learn to be effective in a rapidly changing educational
climate (Burdin, 1989). This teamwork is critical considering the changes taking
place in education. Teamwork recognizes the strengths of individuals in the
organization and stresses effective problem solving and a shared vision for
success.

The third and fourth stages lead into the utilization of situational
leadership in an educational setting which provides the foundation for this
study. By determining the relationship between personality traits and leader
effectiveness, flexibility, and years of experience, there is a focus on the
development of situational leadership and on the natural tendencies for
behaviors of individuals based on their personality types.

Certain leadership theories have had a major impact on the work of
Hersey's and Blanchard's situational leadership model upon which this research
study is based. The theories are presented as background information to help
develop an understanding of the roots of situational leadership.

Theories Influencing Situational Leadership

Leadership theories that most influenced the work of Kenneth Blanchard
and Paul Hersey and their Situational Leadership® model were studies by
Lewin, Lippitt, and White; Tannenbaum and Schmidt; Stogdill, Hemphill, and Halpin; Blake and Mouton; Fiedler; and Reddin (Blanchard et al., 1993). A brief discussion of each of these theories will follow:

Lewin, Lippett, and White studied the differences between the autocratic, democratic, and laissez-faire forms of leadership (Lewin et al., 1960). From that foundation Robert Tannenbaum and Warren Schmidt wrote about choosing leadership styles through utilization of a continuum (Tannenbaum and Schmidt, 1958). The continuum approach was limited in that it characterized leadership as autocratic, democratic (or somewhere in between), or laissez-faire (Blanchard et al., 1993).

A two-dimensional model was developed by Ralph Stogdill and a group that included John Hemphill and Andrew Halpin. This two-dimensional model yielded four leadership styles by contrasting the dimensions and was more complex than the single autocratic or democratic continuum (Blanchard et al., 1993). Their theory showed two separate leadership behaviors, the "Initiating Structure" and "Consideration" (Stogdill and Coons, 1957). Robert Blake and Jane Mouton developed a "Managerial Grid" which changed "Initiating Structure" and "Consideration" to "Concern for Production" and "Concern for People" (Blake and Mouton, 1964). This model was developed into a management training program (Blanchard et al., 1993). Ohio State University held that Style 2 which was high on "Initiation Structure" and "Consideration" was the optimum leadership style. Blake and Mouton in turn postulated that a 9-9 Style which was high "Concern for People" and high "Concern for Production", called the "team" style was the best leadership style (Blanchard et al., 1993).
Fred Fiedler who has been called the "Father of the Contingency Theory of Leadership," theorized that there are three major situational variables that determine if a situation is favorable to leaders: (1) "leader-member relations" - personal relations with members of their group; (2) "task structure" - amount of structure in the task assigned; and (3) "position power" - authority that a leader's position provides (Fiedler, 1967). From the very definition of Fiedler's situational variables, the "leader-member relations" are associated with the relationship concepts presented in the previous theories. Also, "task structure" and "position-power" are related to the task concepts mentioned in earlier theories (Blanchard, 1993).

After Fiedler's situational approach, William Reddin developed a 3-D Management Style Theory which was the first to add an effectiveness dimension to the relationship and task dimensions. In addition, Reddin's work emphasized that "there was no best leadership style" (Reddin, 1967). From this work, Hersey and Blanchard created an initial Life Cycle model that emphasized behavior instead of attitude and were responsible for taking the normative labels off leadership (Blanchard et al., 1993).

Hersey and Blanchard were greatly influenced by Reddin's work. Their Life Cycle model depicted a parallel between the changes of style necessary for effective parenting and the stages of development through which an infant goes to adulthood. They suggested that this same philosophy is needed for effective leadership as a worker goes from new and inexperienced through the stages of professional growth to becoming experienced in a position (Hersey and Blanchard, 1969). Hersey and Blanchard first used the term "Situational Leadership" to describe their model in the 1972 edition of Management of
Organizational Behavior (Blanchard et al., 1993). They developed the "Tri-Dimensional Leader Effectiveness Model" with the influence of Reddin's work and from the original Life Cycle model (Hersey and Blanchard, 1993).

From the work of Graeff and others, flaws were identified in the original Hersey and Blanchard "LEAD" instrument (Graeff, 1983). Because of this critique, changes were made to the original instrument. In 1982, Ken Blanchard, Ron Hambleton, Drea Zigarmi, and Doug Forsyth developed the "Leader Behavior Analysis" (LBA) which reflected changes to address learnings from experience, research on individual and group development, and extensive feedback from management clients at Blanchard Training and Development, Incorporated (Blanchard et al., 1985). This revision of the LEAD instrument was the result of work by Drs. Donald Carew and Eunice Parisi-Carew, Drs. Kenneth Blanchard, Marjorie Blanchard, Frederick Finch, Lawrence Hawkins, Drea Zigarmi, and Patricia Zigarmi. (Blanchard et al., 1993). Blanchard, Zigarmi and Zigarmi explained Situational Leadership® II in 1985 in the book, Leadership and the One Minute Manager, and the LBA was revised to create the LBAII (Blanchard et al., 1993).

Explanation of Leader Behavior Analysis II (LBAII®)

LBAII® is based on the Situational Leadership® Model which is useful for diagnosing demands of given leadership situations and evaluating the amount of direction (directive behavior) and the amount of socioemotional support (supportive behavior) necessary for a leader to provide based on the given situation and level of development of the followers. Research over the past several decades recognizes direction and support as two critical dimensions of a leader's behavior. Theorists have labeled the dimensions with terms such as
autocratic, democratic, employee-oriented, and production-oriented. Directive
and supportive behaviors are styles of leadership that had to be one or the other
and could be represented linearly on a single continuum ranging from
authoritarian (directive behavior) to participative (supportive behavior).

Based on the research of Hersey, Blanchard, and others and extensive
leadership studies at Ohio State University, the assumption was questioned that
direction and support had to be either/or, and leader effectiveness could instead
be measured by an appropriate style being utilized for a given situation and in
light of the development level of the follower or the group. The Ohio State
group observed behaviors of leaders in various situations with varying levels of
follower readiness and found that most of the activities of leaders could be
classified in to two dimensions, "initiating structure" (directive behavior) and
"consideration" (supportive behavior). Directive behavior is described as the
leader providing a top to bottom, or one-way, communication by explaining
exactly what the follower is to do and how to do it. Supportive behavior is
described as the leader engaging in two-way communication and providing
practical and socio-emotional support to the follower.

Although the LBAII® yields six scores, the two primary scores are the
Flexibility Score and the Effectiveness Score. The Flexibility score is the
numerical indicator of how often a respondent uses a different style (S1, S2, S3,
S4) to solve each of twenty given situations on the LBAII-Self instrument. The
more often a respondent chooses a single style, the less flexibility is evidenced.
The more evenly the spread of style choices, the higher the flexibility score
which means that more flexibility is exhibited. The Flexibility scores of zero to
thirty (0-30) can be subject to parametric statistics. The Effectiveness score is the
respondent's correct or appropriate usage of a chosen style given the situation described. The Situational Leadership® Model advocates that there is one style which is the preferred style in light of each given situation. A value is assigned for excellent, good, fair, and poor answers. If the respondent chooses all excellent answers, the score is computed by multiplying four times twenty (4 x 20) questions to yield a perfect score of eighty (80). The Effectiveness score demonstrates an individual’s diagnostic skills of determining the appropriate style given a particular situation. According to the Blanchard group, "The Effectiveness score is the most important. The score's ranges from twenty to eighty (20 to 80) can be subjected to parametrical statistical analysis" (Zigarmi et al., 1992).

Four other dimensions, which denote style (S1, S2, S3, S4) are utilized to show preference of behavior in a leadership role. There are also four follower development levels (D1, D2, D3, and D4) which denote the readiness and development level of the followers. A discussion of the actual premises of the Situational Leadership II model are included to provide a detailed explanation of the dimensions measured by the model.

**Situational Leadership® II Premises**

Managers need to be concerned with both directive and supportive behaviors. Therefore, "task and relationship behavior" were modified in **Situational Leadership® II** to reflect both as important and necessary to one another (Blanchard et al., 1993).

**Leadership Styles**

Style 1 is "Directing", which was renamed from "Telling" in the original Situational Leadership model to emphasize one of the two behavior dimensions
mentioned previously. Style 2 was relabeled "Coaching" instead of "Selling" because leaders use both supportive and directive behaviors to develop people's skills. "Coaching" implies what you do with people to develop them. Style 3 was relabeled "Supporting" instead of "Participating" to again emphasize one of the two leader behaviors. Style 4 has remained as "Delegating" which involves low Supportive and low Directive behavior (Blanchard et al., 1993).

Development Level

Development Level refers to "the extent to which a person has mastered the skills necessary for the task at hand and has developed a positive attitude toward the task" (Blanchard et al., 1993). Development level determines how employees respond to various leader styles. LBAII is based on the notion that employee competence and confidence can be developed when the appropriate leadership styles are used. According to the LBAII model, dimensions of employee development are "Competence" and "Commitment." "Competence," which is knowledge and skills, is development of ability in a job as a person gains experience. "Commitment" is generally high initially, but employees can become less committed in a new job if they begin to feel overwhelmed (Blanchard et al., 1993).

Employee development levels are D1, D2, D3, and D4. Development level D1 is described as individuals being hired or promoted who are initially low in competence but high in commitment because they are eager to learn. Therefore, D1 describes individuals as high on "Commitment" and low in "Competence." Development level D2 describes individuals who may be discouraged because they are trying to learn quickly but have not reached the level of competence they desire. Some "Competence" has been developed at this
level, but there is low "Commitment." Development level D3 is described as high "Competence" but variable "Commitment". These employees appreciate handling day to day decision-making but may still need managers to listen and help with problem-solving by providing Style 3 supportive leadership behaviors. Development level D4 is high "Competence" and high "Commitment". This employee is described as fully developed and responds well to a Style 4 leader style (Blanchard et al., 1993).

**Explanation of Myers-Briggs Type Indicator (MBTI®)**

The Myers-Briggs Type Indicator® measures sixteen combinations of four preferences of interests, values, and skills which identify personality types. The sixteen types yield characteristics which vary among the population.

There are sensing types which experience the world and act based on stimuli which are taken in through the senses in a concrete fashion. The intuitive types, however, yield to intuition and focus on the future.

There are extraverts® and introverts. Extraverts® focus on the outer world of people, and introverts focus on the inner world of ideas and impressions.

There are thinking and feeling types. Thinkers base decisions on objective reasoning, logic, and cause and effect; whereas those with a propensity for feeling are person-centered and base decisions on values and subjective evaluation.

There are those who prefer judging and those who prefer perceiving. Those who prefer judging tend to prefer a planned and organized approach to life. People who prefer perceiving like a flexible and spontaneous approach to life, preferring to keep options open.
Explanation of Personality Type Preferences

The personality type preferences combine the eight dichotomous variables which total sixteen combinations of the four dimensions measured by the MBTI®. The four dichotomous variables which make up the sixteen personality types are arranged as follows:

1. Extravert® or Introvert - Outer world versus inner world,
2. Sensing or iNtuition® - Present and concrete versus future possibilities,
3. Thinking or Feeling - Objective logic versus subjective evaluation, and
4. Judging or Perceiving - Planned and organized versus flexible and spontaneous.

The preceding variables make up sixteen personality types. Each type has its own interests, values, and skills. The sixteen types and a brief explanation of each one are included to assist in understanding the dimensions and how they are combined together into a personality type preference.

1. ISTJ - The ISTJ preference is a serious and quiet individual who concentrates, is practical and well-organized, and uses his/her own head to make decisions.

2. ISTP - The ISTP preference is quiet and reserved and interested in cause and effect. One will notice an occasional glimmer of humor in this individual. This person has a propensity for organizing facts logically and enjoys learning how mechanical things operate.

3. ISFJ - This person is stable, quiet, and friendly. It is important to this individual to meet any obligations made, therefore, s/he strives for accuracy.
and is good with details. An ISFJ can be described as a loyal person who is concerned with others' feelings.

4. ISFP - This person is usually a loyal follower who does not care to have a leadership role. His/her opinions are not forced on others, and s/he does not like disagreements. The ISFP takes a laid back attitude about getting things done for fear of spoiling the moment with undue worry about obligations.

5. ESTP - This person is very good at solving problems immediately. The ESTP does not worry, rather chooses to enjoy things as they come. This person likes sports, is conservative, but usually is adaptable as well. The ESTP likes hands-on activities, things that need to be taken apart or put back together, including mechanical things. The person with this personality preference usually does not like to listen to long explanations about anything.

6. ESTJ - This person is practical and has a head for business. Usually the ESTJ does not care to learn about things that s/he sees no use for, but can learn if necessary. This person is an organizer who likes to be in charge. The ESTJ can make a good administrator but needs to work at understanding others and their feelings.

7. ESFP - The ESFP is easy to get along with, friendly, and fun to be around. S/he remembers facts easier than theories and is good in situations that require common sense and someone who is a people-person.

8. ESFJ - This person is cooperative and a perfect member of any committee. S/he is talkative and has the ability to create harmony among others. This person always does nice things for others and needs praise.

9. INFJ - This person is one with perseverance and the drive to do whatever is necessary. The INFJ preference individual is quiet and
conscientious and concerned for others. This person is one who is held in high esteem for upholding principles and supporting the good of others.

10. INFP - This person has a lot of enthusiasm but only shares that with those individuals s/he considers to know well. The INFP usually takes on too many projects at one time but is able to see them through to completion. Although the INFP is friendly, s/he is usually too busy for small talk. Physical possessions are not coveted by the INFP preference individual.

11. INTJ - The INTJ has original ideas and the ability to carry out projects which are important to him/her whether or not there is help for the project. The INTJ can be described as critical, determined, and sometimes stubborn. It is important for the INTJ to learn to compromise on issues which are not important in order to gain acceptance for those issues which are of prime importance.

12. INTP - This individual is quiet and reserved. S/he has an interest in science and theories. The INTP does not enjoy small talk or parties but is mainly interested in ideas. His/her career area should be of strong interest to him/her.

13. ENFP - The ENFP is a warm individual who has a creative imagination. This person is a good problem-solver and is willing to help others. The ENFP usually does not plan in advance but improvises to get things done.

14. ENFJ - The ENFJ is a responsible individual who cares about other peoples' feelings. This individual is good at leading discussions, is sociable, and is usually popular. The ENFJ responds equally well to praise and to criticism.

15. ENTP - The ENTP has a quick wit and is good at many different things. This person can argue both sides of an issue. The ENTP is a good problem-solver for challenging or difficult situations but may forget routine
matters. The person with this personality preference is an individual who goes from one interest to another.

16. ENTJ - The ENTJ is a leader who is decisive and who is good at public speaking. This individual is good in anything that requires utilization of reintellectual abilities. ENTJ may act more skilled than s/he actually is.

The characteristics provide an explanation to assist in understanding each personality type and its relationship to leader effectiveness and flexibility. By understanding the characteristics associated with each personality preference, relationships are easier to visualize between personality type and leadership dimensions.

The following section provides information about previous research conducted utilizing the LBAII®. Also included is one study which utilized the MBTI® to determine one dimension of leadership effectiveness for school principals. In addition, the work of Barr and Barr, in their book Leadership Development Maturity and Power, is addressed.

Previous Research Utilizing LBAII® and MBTI®

LBAII® studies have yielded no significant findings in regard to demographic variables such as age, gender, and education in relationship to the LBAII® scores. The authors suggest that researchers do more than pure demographic studies if significant findings are sought. Thirty-two percent of all studies done up to 1993 indicate that demographics have little correlation with leadership style (Blanchard et al., 1993). From a total of fifty studies, sixteen are classified demographic, and as one researcher stated, "... the findings ... provide adequate evidence that demographic variables are not meaningful predictors of leadership styles. Replications of similar research studies are not recommended..."
(Martin, 1990). However, Blanchard Training and Development, Incorporated, considers gender differences worthy of study, and in granting permission to utilize the LBAII Self-A instrument requested that gender differences in scores be included in this research study (Zigarmi, et al, 1993). Additionally, a previous educational study, "Lead Styles, Flexibility, and Effectiveness of Public Secondary School Principals in Thailand" by Wisessang, noted that there were no correlations between leadership styles, flexibility, and effectiveness and demographics such as gender and years of experience (Zigarmi, et al, 1993). Wisessang's study addressed the possibility that years of experience could impact leadership effectiveness even though no significant correlation was found. Therefore, in order to address possible demographic variables in this study, a balanced design of males and females is utilized, and years of experience is included as a dependent variable.

The main finding from the LBAII® research has to do with employee satisfaction. A positive correlation between leader effectiveness and employee satisfaction shows that development of effective leader behavior is worthwhile if one believes that employee satisfaction results in higher productivity. Keep in mind that a high effectiveness score on the LBAII® is determined by selection of the appropriate leader style based on the development level of the followers.

Wilkinson compared high scoring and low scoring leaders on the Effectiveness scores and found a positive relationship between high Effectiveness scores and employee satisfaction with supervisors (t=3.18, p<.001), satisfaction with administration and policies (t=2.09, p<.019), and total satisfaction scores (t=1.78, p<.039). This study was conducted in a government agency and had an N=116 (Wilkinson, 1990).
There were positive correlations found between high effectiveness scores on the LBAII® Other and seven dimensions of employee perceived satisfaction in a business setting. Positive correlations were found between LBAII® Effectiveness and employee perceived satisfaction in a business setting. Positive correlations were found between LBAII® Effectiveness and employee perceptions of high performance (R=.24, p<.001, N=293), high productivity (R=.25, p<.001, N=293), team effectiveness (R=.25, p<.001, N=293), inspiration (R=.23, p<.001, N=295), alignment (R=.28, p<.001, N=292), commitment (R=.12, p<.021, N=290), and feelings of empowerment (R=.34, p<.001, N=292). (Stoner-Zemel, 1988).

In Blanchard studies of the LBAII® and a comparison of high Effectiveness scores of managers and employee morale, the managers with high Effectiveness scores had employees who had higher morale (F=4.29, p<.036, N=552) and reported positive opportunities for growth within the organization (F=4.87, p<.018, N=552). Also, if the manager had high Effectiveness scores, the employees reported less tension in the organization (F=6.89, p<.001, N=552). (Blanchard et al., 1993).

Another study which supports predictive validity for the LBA Effectiveness score was found by Haley. He reported positive correlations between the Effectiveness score and employees' perceptions of manager's overall effectiveness (R=.40, p<.001, N=95) and work group effectiveness (R=.18, p<.05, N=95) (Haley, 1983).

A nursing study was conducted by Duke who found positive correlations between the Effectiveness score and the PKPCT Barrett Empowerment Scale. Duke found positive correlations with the Effectiveness score and perceptions of
the freedom to act intentionally subscale (F=4.02, p<.01, N=324) and the involvement in creating change subscale (F=4.68, p<.01, N=324) (Duke, 1988). This study showed that managers who are seen by employees as matching appropriate leadership style with development level were seen as empowering (Blanchard et al., 1993).

Jacobsen found positive correlations with the Management Advancement Quotient (MAQ) and the LBA Effectiveness score as rated by employees (R=.13, p<.05, N=267) (Jacobsen, 1984). "Managers who have the skill to match leadership style to development level tend to move up the corporate ladder more quickly" (Blanchard et al., 1993).

The Blanchard group did an unpublished study in 1992 which compared LBAII ® Self Effectiveness scores of high and low scoring managers to employees' perceptions of climate and satisfaction (Zigarmi et al., 1993). According to Blanchard, Zigarmi, and Nelson, ... "the proof of Situational Leadership II model may lie in a mosaic approach in which different pieces fit together to display an understanding of what happens in the interplay between employees and their managers. To reach that point, research needed includes work on development level, standard instrumentation, and match studies" (Blanchard et al., 1993).

Another study worth noting by Hambleton and Gumpert examined and supported the validity of Hersey and Blanchard's Situational Leadership® Model. Although no causal relationship was found, a significant relationship was reported between the leadership style of a manager in particular situations and managers' perceptions of subordinate job performance (Hambleton et al., 1982).
A study which utilized the Myers-Briggs Type Indicator (MBTI)<sup>®</sup> and the Principal Problem Strategy Questionnaire (PPSQ), administered the instruments to 86 principals. The PPSQ presented twelve problem situations. It was determined that personality type preference as measured by MBTI<sup>®</sup> is a major determinant of leader behavior problem solving strategies utilized to solve the PPSQ problem situations (Myers and McCaulley, 1993). The current study addresses the possible relationship between personality type preferences and gender to leader Effectiveness, Flexibility, and years of experience. The study is intended to enhance school administrators' understandings of personality type preferences, related strengths, and their relationship to effective leader behaviors.

Barr and Barr utilized the Myers-Briggs personality preferences to explain leadership development in what they identified as Stage IV Leadership which they described as the only true leadership stage. Stage IV described a mature leader who inspires and empowers others. According to Barr and Barr, "Leaders create relationships of trustworthiness, integrity, maturity, and caring that provide a cultural environment for growth and discovery" (Barr and Barr, 1994). According to Barr and Barr, change is the redistribution of power. They add, "Leadership through managing process and teamwork changes behaviors, systems, structure and culture" (Barr and Barr, 1994). This type of leadership is needed in school districts to respond to the public outcry for systemic change in public schools. Because of current focus on leadership for change, this study of relationships between personality preferences and leader effectiveness, flexibility, and years of experience is especially timely.
A bridge was developed between the two models which were the basis for this research study. Although there are some differences between the bridge and this study, there are some similarities as well which are worth mentioning. The differences between the bridge and this study have to do with a focus on managers rather than school administrators which are the focus of this study. The bridge includes the personality types of managers and their employees, whereas this study focuses solely on personality types and gender of school administrators in relationship to leader effectiveness, flexibility, and years of experience. The bridge is a program developed by the Blanchard group which facilitates learning of the leadership process. The program merges the work of the Blanchard group and Carl Jung, Isabel Myers, and Katharine Briggs (Good et al., 1992). The purpose of the bridge between these two models is to help managers enhance their leadership abilities, communication skills, and team development by understanding the relationship of their leadership styles and personality type preferences to their employees' development levels and type preferences (Good et al., 1992).
CHAPTER III

METHODS AND PROCEDURES

Subjects

The population for this study were school administrators in eleven school districts located in North Central Texas, more specifically in Tarrant and Dallas Counties. The Tarrant County school districts represented included Azle, Birdville, Eagle Mountain Saginaw, Lake Worth, and Mansfield. Dallas County districts included in this study were Duncanville, Garland, Irving, Lewisville, Mesquite, and Plano. The population sampled were certified and practicing Texas school administrators. Because the administrators were certified and practicing Texas administrators, the findings can be generalized to administrators in other Texas districts.

The respondents in this study completed a Human Subjects Form to give permission for the results from their participation to be utilized in this research study. This form is included in Appendix B.

Sample Size Determination

The eleven (11) school districts for the sample were randomly selected from the Texas School Directory from thirty (30) total districts in Tarrant and Dallas Counties. The sample was comprised of eighty (80) out of a total population of 317 administrators who completed the LBAII® Self instrument administered by this researcher. The respondents were also given the Myers-
Briggs Type Indicator® which was administered by counselors and school psychologists. Respondents were given feedback concerning their scores and the findings from both instruments. Therefore, they received training to help in understanding their personality type preferences and their Effectiveness and Flexibility as a leader. Respondents did not provide any personal information other than school district, gender, and years of experience. Therefore, the instruments were administered with full anonymity of the respondents. The sample instrument which included the school district, categorized the administrators according to gender, and provided years of school administrative experience is included in Appendix C.

The overall test was made at the .05 level of significance, and a power of .80 was desired. The formula utilized to determine sample size was as follows:

\[
n = \frac{(\sigma^2/E)^2}{\left(\frac{7 \times 2}{2}\right)}
\]

where:

- \(\sigma\) = estimate of population's standard deviation
- \(2 = 1.96, \alpha : .05\)
- \(E = X vs \mu\)

therefore:

\[
n = \left(\frac{7 \times 2}{2}\right)^2
\]

\[
n = (7)^2
\]

\[
n = 49
\]

As shown in the formula above, the sample size minimum was 49 in order to achieve a power of .80 at the .05 level of significance. However, for the purpose of this study it was critical to have a balanced design which called for an equal number of subjects in each cell. The design utilized Analysis of
Variance (ANOVA) and a minimum of 10 subjects per cell was desired for a total of 80 subjects. The balanced design is shown in the following Figure 3.1.

**Figure 3.1 Balanced Design - Equal Cell Size**

<table>
<thead>
<tr>
<th>Myers-Briggs Type</th>
<th>MB 1 (ISTJ)</th>
<th>MB 2 (ESTJ)</th>
<th>MB 3 (INTP)</th>
<th>MB 4 (ESFJ)</th>
<th>Main</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Main Effects</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It was necessary to have an equal number of male and female subjects in each of the personality type categories to achieve the required balanced design. There are sixteen Myers-Briggs categories, however, this study limited the categories to four because past research indicated that it was more likely for school administrators to fall into the four categories above based on their personality type preferences (Myers and McCaulley, 1993). In addition, the four categories above included each of the dichotomous variables in at least one of the personality type combinations. For example, E or I (Extravert® or Introvert), includes E in two categories and I in two categories. In the dimensions of S or N (Sensing or iNtuitive®), S is in three categories and N is in one category. In the dimensions of T or F (Thinking or Feeling), T is in three categories and F is in one category. The the J or P (Judging or Perceiving) dimension includes J in three categories and P in one category. Based on job requirements of a school administrator, these personality categories are reasonable representations of individuals who serve in these positions. Previous studies have found the following percentages of individuals to hold jobs as school administrators in
elementary and secondary school level positions or in overall district-wide positions (Myers and McCaulley, 1993).

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>ISTJ</td>
<td>28%</td>
<td>ESTJ</td>
</tr>
<tr>
<td>INTP</td>
<td>07%</td>
<td>ESFJ</td>
</tr>
</tbody>
</table>

The percentages account for 72% of elementary, secondary and unspecified school administrators with the remaining 28% falling in the other twelve personality types.

**Instrumentation**

Two instruments were utilized to gather data for this research. One was the LBAII® Self-A which measured leader effectiveness, flexibility, and style and the other was the Myers-Briggs Personality Type Indicator (MBTI)®.

Concerning the dimensions of the LBAII® Self-A, leader Effectiveness was scored on a scale ranging from 20 to 80. There were 20 responses which were scored four points for an excellent (E) response, three points for a good (G) response, one point for a fair (F) response, and one point for a poor (P) response.

Flexibility was scored on a scale ranging from 0 to 30, depending on the variety of leader styles selected for the twenty situations. A respondent who utilized only one or two styles scored lower on Flexibility than a respondent who utilized a variety of styles.

There are four variables related to leader style which are categories S1, S2, S3, and S4. The premise of situational leadership is that an effective leader selects the appropriate style depending on the development level of the group or followers and the situation at hand. In order to obtain permission to utilize the LBAII® Self-A for this research project, certain stipulations had to be met in regard to providing descriptive data requested. The permission letters and
descriptive data results are presented in Appendix A. The descriptive data required as a condition to utilizing the instrument were as follows:

1. Average Flexibility Score and Standard Deviation.
2. Average Effectiveness Score and Standard Deviation.
3. Average Style Score Means and Standard Deviations Styles 1 through S4.
4. Percent of Primary Styles 1 through S4.
8. Average Flexibility Scores and Standard Deviation by Gender.
10. Average Style Score Means and Standard Deviation by Gender.

The four personality dimensions measured by the MBTI® represented dichotomous variables which relate to a case of either/or. For instance, each respondent had four preference scores for Introversion or Extraversion®, Sensing or iNtuition®, Thinking or Feeling, and Judging or Perceiving. More importantly, however, was the combining of the four personality dimensions to form scores for sixteen personality preference types. This study utilized four of the sixteen types.

**Formulas for Determining Scores**

The scores for both instruments were computed according to instructions in the respective test manuals. For the LBAII® Self-A instructions were utilized from Research on the LBAII® A Validity and Reliability Study by Zigarmi et al.
For the MBTI® the *Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator* by Myers and McCaulley was utilized.

The formulas for the LBAII® are as follows:

1. Compute Flexibility = \[30 - (|S1 - 5| + |S2 - 5| + |S3 - 5| + |S4 - 5|)\]
2. Compute Effectiveness = \[(P \cdot 1) + (F \cdot 1) + (G \cdot 3) + (E \cdot 4)\]
3. Compute Primary Style = (Largest of S1, S2, S3, or S4)
4. Compute Secondary Style = (Second Largest of S1, S2, S3, or S4) \(\geq 4\)
5. Compute Developing Style(s) = (S1, S2, S3, and/or S4) < 4

It is important to keep in mind that S1, S2, S3, and S4 stand for leadership Styles 1, 2, 3, and 4 respectively. The styles explain methods of leadership which are utilized including Style 1 which is a leader who exhibits high direction and low support, Style 2 which is high direction and high support, Style 3 which is low direction and high support, and Style 4 which is low direction and low support. The scoring of Effectiveness is P-Poor, F-Fair, G-Good, and E-Excellent which rate the responses to the twenty (20) items on the LBAII® Self-A. Each item is given a weight of 1 to 4 based on the quality of response to the item by selecting the appropriate leadership Style based on the situation explained in the item. A poor (P) and fair (F) response were both worth one point. The good response was worth 3 points and an excellent response was worth 4 points. Therefore, the instrument yielded an Effectiveness score of from 20 to 80 points.

The formulas for the Myers-Briggs scores indicate a conversion to continuous scores. The preference score for each of the four dimensions consists of a letter showing the direction of preference and a number showing the reported strength of the preference. The greater number of points indicates the
direction of preference (for example \( E \ 17 \) and \( I \ 9 \) indicate an \( E \) preference; however, \( E \ 9 \) and \( I \ 17 \) indicate an \( I \) preference). This scoring procedure works very well when the Myers-Briggs preference scores are considered independently of other measures. However, when Myers-Briggs is compared to another instrument it is better to treat the dichotomous preference scores as if they were continuous scales.

Preference scores can be calculated by formula. The formula is as follows:

1. For \( E, S, T, \) and \( J \): \( 2 \times (\text{larger points minus smaller points}) - 1 \)
2. For \( I, N, F, \) and \( P \): \( 2 \times (\text{larger points minus smaller points}) + 1 \)
3. For ties: \( I \ 01, N \ 01, F \ 01, P \ 01 \)

The following formulas were utilized to transform the Myers-Briggs scores to continuous scores.

1. For \( E, S, T, \) and \( J \) preference scores the continuous score is 100 minus the numerical preference score.

Example:

Preference scores = \( (E \ 19, S \ 17, T \ 25, J \ 12) \)
Continuous scores = \( (100 - 19, 100 - 17, 100 - 25, 100 - 12) \)
= \( (81, 83, 75, 88) \)

2. For \( I, N, F, \) and \( P \) preference scores, the continuous score is 100 plus the numerical preference score.

Example:

Preference scores = \( (I \ 19, N \ 17, F \ 25, P \ 12) \)
Continuous scores = \( (100 + 19, 100 + 17, 100 + 25, 100 + 12) \)
= \( (119, 117, 125, 112) \)

This study coded MBTI® preference scores as continuous scores in order to make comparisons with the LBAII® Self-A scores.
Validity

Validity is a necessary component in the process of determining the appropriate instrument(s) to achieve the purposes of the study. A valid instrument is one that measures what it purports to measure. The instruments utilized in this study demonstrated content, construct, and predictive validity.

Prior to the discussion of validity of the LBAII® Self-A, it is important to note that validity and reliability studies were conducted on the LBAII® Self-A and the LBAII®-Other instruments. The two instruments are the same length. The only difference between the two instruments is in the wording of the questions. The "Self" instrument rates oneself, for example, "You would....". The "Other" rates the boss, for example, "The leader would....". Therefore, the validity and reliability results of the LBAII®-Other can be applied to the LBAII®-Self as well. (Zigarmi et al., 1993).

LBAII® SELF-A

Content validity of LBAII® Self-A is based on the notion that important content from the Situational Leadership®II Model has been adequately translated into test items. (Zigarmi et al., 1993). Content validity is also determined in the process of establishing construct validity.

The LBAII® Self-A instrument is designed to measure leadership. In order to determine construct validity, subconstructs of leadership are defined as Effectiveness, Flexibility, and Style (S1-S4). Another instrument, the Wilson Multi-Level Management Survey (MLMS), was selected to help establish validity of the LBAII® Self-A. The Wilson MLMS is designed to measure 23 subconstructs of leadership behavior and has been subjected to intensive construct validity procedures. (Zigarmi et al., 1993). The Leader Behavior
Description Questionnaire (LBDQ) instrument was also utilized to establish content validity because the scores measure task and relationship behaviors which relate to the directive and supportive behaviors on the LBAII® Self-A. "The LBDQ has a long history of validity" (Zigarmi et al., 1993).

The LBAII® Self-A and MLMS subconstructs acted similarly, as if they were measuring the same thing, which was the overall construct of leadership (Zigarmi et al., 1993). The full model of the comparisons in scores noted a significant relationship in comparing all six of the LBAII® Self-A scores to the fifteen subscale variables measured by the scores on the MLMS instrument (Zigarmi et al., 1993). The correlations ranged from \( r^2 = .36 \) to \( .52 \). The partial model which breaks out the LBAII® Self-A leadership Style scores in utilizing the Wilson’s Managerial Task Cycle to predict Style, yielded correlations of \( r^2 = .36 \) to \( .58 \) for Style 1 scores; \( r^2 = .12 \) to \( .20 \) for Style 2 scores; \( r^2 = .40 \) to \( .52 \) for Style 3 scores; and \( r^2 = .37 \) to \( .50 \) for Style 4 scores.

The LBDQ scores and LBAII® Self-A scores were logically and quantitatively related as well. Comparisons of the scores showed significance and yielded correlations from \( r^2 = .02 \) to \( .26 \) (Zigarmi et al., 1993).

The predictive validity of the LBAII®-Self, in order to be of value in this study, should utilize its scores to predict an administrator’s future success or behavior. Administrators who possess Leader Effectiveness should produce more in the terms of output, should provide for greater employee satisfaction, and should advance faster. In order to determine predictive validity, the LBAII® Self-A Leader Effectiveness score and follower perception of organizational climate using four of the Wilson MLMS subscales (building trust, interest in subordinate growth, approachability, and team building) were
utilized. Once again, the scores were correlated between the two instruments. The correlations ranged from $r^2 = .15$ to .18. It is worthy to note that present scores were utilized for comparisons with the inference that this same relationship might occur in future situations. (Zigarmi et al., 1993).

**MBTI®**

The MBTI® was designed to implement Carl Jung's theory of psychological types. Therefore, its validity is based on its ability to demonstrate relationships and outcomes predicted by the theory. (Myers and McCaulley, 1993). The theory suggests that persons are different personality types. The MBTI® classifies persons according to their true types.

Content validity in the item selection is based on the empirical evidence that the items separate persons with opposing preferences. Two assumptions exist. One is that true personality preferences exist, and secondly, these preferences are dichotomized with each pole of a preference being equally valuable. The indicator was developed in a series of stages beginning in 1942 and continuing to publication of Form G in 1977.

Type distributions are the method for presenting MBTI data on groups. The type tables provide evidence for construct validity.

MBTI® has also been correlated with other scales of personality, interest, and academic tests. In comparing the MBTI preferences with the Adjective Check List (ACL), by Gough and Heibrun in 1983, the significant positive correlations of at least .20 included the following:

1. Extravert correlated with self-confidence, dominance, lability, affiliation, and autonomy.
2. Introvert correlated with abasement and deference.
(3) Sensing correlated with self-control, endurance, order, and deference.
(4) iNtuitive® correlated with self-confidence, autonomy, and lability.
(5) Thinking correlated with achievement, dominance, endurance, order, and autonomy.
(6) Feeling correlated with personal adjustment, intraception, affiliation, abasement, and deference.
(7) Judging correlated with self-control, personal adjustment, endurance, order, abasement, and deference.
(8) Perceiving correlated with lability and autonomy.

MBTI® continuous scores were also correlated with the California Psychological Inventory (CPI) by Gough in 1975 (Myers and McCaulley 1993). The reported findings show preferences with correlations of at least .20. These results are as follows:

(1) Extravert correlated with dominance, capacity for status, sociability, social presence, self-acceptance, sense of well-being, tolerance, good impression, achievement, intellectual efficiency, social conformity, and activity.
(2) There were no significant correlations reported for Introvert.
(3) Sensing correlated with communality.
(4) iNtuitive® correlated with capacity for status, sociability, social presence, self-acceptance, achievement, intellectual efficiency, psychological-mindedness, and flexibility.
(5) There were no significant correlations for Thinking.
(6) There were no significant correlations for Feeling.

(7) Judging correlated with responsibility, socialization, self-control, good impression, communality, and achievement.

(8) Perceiving correlated with social presence and flexibility.

In order to strengthen the construct validity of the instrument, a study was conducted by Rich in 1972 which used correlation between the MBTI® and the Jungian Type Survey (JTS) (Myers and McCaulley, 1993). The correlations between the two were Extravert (.68, p < .01, N=98); Introvert (.66, p < .01, N=98); Sensing (.54, p < .01, N=98); iNtuitive® (.47, p < .01, N=98); Thinking (.33, p < .01, N=98); and Feeling (.23, p < .05, N=98). Therefore, the two instruments seem to be measuring the same constructs but are more consistent with EI and SN than with TF (Myers and McCaulley, 1993).

Reliability

Establishing reliability of a test instrument helps to reduce the measurement error. A reliable instrument will measure the same construct each time it is administered or will measure what it is purported to measure and do so consistently. Therefore, the results are stable over several administrations of the same sample and over several samples of the population. A reliable instrument reduces measurement error, and administration can be repeated with consistent results.

Several methods were utilized to establish reliability on the two test instruments utilized in this study. The test/retest method was utilized on both the LBAII® Self-A and the MBTI®. The alternate form method and internal consistency method was utilized on the LBAII® Self-A. The split-halves method was utilized only on the MBTI® because the LBAII® Self-A was considered too
limited in the number of items and subconstructs to be measured for the internal consistency method to be effective. Generally, the method(s) selected is appropriate for the instrument in establishing reliability.

LBAII® SELF-A

The LBAII® Self-A was subjected to test/retest, in a 1986 study conducted by Nye, as one way to determine reliability. There were ten days between the two test administrations and yielded test/retest reliability of $r^2 = .72$ for Leader Flexibility and .30 for Effectiveness. (Zigarmi et al., 1993).

Alternate forms were utilized in one study by Stoner-Zemel in 1988 which yielded statistically positive scores between the LBAII® Effectiveness scores and the six subscales of the Excellent Organizational Practices Index (PAVE). The reliability coefficients ranged from .12 to .34.

The split-halves method is considered inappropriate for the LBAII®-Self and has not been utilized. The main reason for eliminating this method in establishing reliability of the instrument is due to the limited number of items and subconstructs to be measured (Zigarmi et al., 1993).

Internal consistency as a method to establish reliability on the LBAII® Self-A and Other utilized Cronbach's Coefficient Alpha and Kuder Richardson Formula-20 (KR-20). One study is worth mentioning which utilized the PowerBase Inventory (PBI) Self and the LBAII® Self-A. In this PBI Self/LBAII Self-A study, KR-20 internal consistency of scores on the LBAII® Self-A yielded .98 for Style 1, .97 for Style 2, .99 for Style 3, and .98 for Style 4. (Zigarmi et al., 1993).
Overall, the internal consistencies reliability of scores on the LBAII® Self-A and Other ranged from .43 to .86. Therefore, the reliability of the instrument is strong based on the internal consistency method.

One thorough reliability study was conducted by Punch in 1987 on the LBAII® Self-A. The internal consistency was examined in terms of an "ideal mathematical model for the way items are expected to act" (Zigarmi et al., 1993). The LBAII® Self-A Effectiveness score was analyzed using the Rasch measurement model. The Rasch model allows for a thorough analysis of the patterns of choices to the items on a scale and gives insight as to the way items behave and the way they are ordered on the continuum which measures the trait (in this case Leader Effectiveness scores which matches appropriate styles to situational demands). The Rasch model mathematically explains the difference in what is expected to happen and what actually happens, "how the items fall on a natural logistic curve" (Zigarmi et al., 1993). The test of significance is described as a "Test of Fit". The higher the probability, the better the "Fit", and the inverse is true for the lower probability levels. This study reported that fifteen items of the LBAII® Self-A fit the model very well. Two items were reported as over-discriminating which is desirable because they contribute to variance. Only three items fell below the discriminating threshold (Zigarmi et al., 1993).

MBTI®

One of the main concerns of reliability of the MBTI® is measuring types over time and the consistency with which a person remains in the same type. One observation made is that a person who has a good understanding of his own preferences will report those preferences more consistently. Therefore,
samples of older persons are expected to have higher reliability estimates than younger persons. Also, since quality of perception and judgment are better for higher achieving individuals, it is expected that individuals who have higher achievement levels will report their preferences more consistently.

A logical split-half procedure was utilized to select the X and Y halves as a method to determine internal consistency reliability. Each split-half drew from every item content domain. The MBTI® reliabilities are consistent with those of other personality instruments. Internal consistency was derived from X and Y continuous scores utilizing the Spearman-Brown Prophecy formula correction. The groupings were from three samples taken from the Center for Applications of Psychological Type (CAPT) databank. Reliabilities remain stable for up to twenty-five omissions for MBTI® Form G. As expected, older respondents had higher consistency as well as higher achieving respondents. Reliability scores are higher in the higher intelligence groups as well.

In summary, the estimates of internal consistency reliabilities for the continuous scores of the four MBTI® scales are acceptable for adult samples. The split-half reliabilities did not take into account the dichotomous nature of the scores for which the MBTI® was designed (Myers and McCaulley, 1993). Test-retest reliability estimates indicate the likelihood that a person will come out the same MBTI® type upon retest. The chance probability of choosing all four preferences (coming out the same type) on a retest is 6.25%. The actual retest probabilities are significantly different from chance. Within a two month interval for Howard University students, 53% chose the same four preferences; after five weeks 48% of Mississippi State students chose the same four
preferences, and after six years 61% of the elementary teachers tested chose the same four preferences (Myers and McCaulley, 1993).

In conclusion, test-retest reliabilities of MBTI show consistency over time. When subjects report a change in type, it is most likely to occur in only one preference and in scales where the original preference was low (Myers and McCaulley, 1993).

Research Design

For a complete understanding of the research design it is important to keep in mind which variables are independent and which are dependent. The independent variable is the antecedent, the presumed cause of the dependent variable. The dependent variable is the consequent, the presumed effect (Kerlinger, 1986).

Independent and Dependent Variables

The independent variables were: (1) gender and (2) personality type category which was limited to four of the Myers-Briggs personality types as measured by the MBTI® (ISTJ, ESTJ, INTP, and ESFJ) and the Myers-Briggs subscale scores (EI, SN, TF, and JP). The dependent variables for the study were: (1) Leader Effectiveness which was measured from the twenty item LBAII®-Self instrument on a scale of 20-80; (2) Leader Flexibility which was determined from the appropriate selection of leadership style to be utilized based on the situation at hand and measured on a scale of 0-30; and (3) years of experience in school administration.

Research Questions

The following research questions are organized according to the statistical test to be utilized.
Hotelling’s $T^2$

1. Is there a significant mean gender difference in LBAII Effectiveness scores, Flexibility scores, and years of experience in school administration?

**MANOVA**

2. Is there a significant mean difference between four categories of Myers-Briggs personality type in LBAII Effectiveness scores, Flexibility scores, and years of experience in school administration?

**Multiple Regression**

3. How much variance is explained by Myers-Briggs subscales (EI, SN, TF, JP) in predicting LBAII Effectiveness scores?

4. How much variance is explained by Myers-Briggs subscales (EI, SN, TF, JP) in predicting LBAII Flexibility Scores?

5. How much variance is explained by Myers-Briggs subscales (EI, SN, TF, JP) in predicting years of experience in school administration?

Statistical tests utilized were Hotelling’s $T^2$, Multiple Analysis of Variance (MANOVA) to test for interaction and main effects, and Multiple Regression to predict leader Effectiveness, Flexibility, and years of experience based on Myers-Briggs personality type categories. Analysis of Variance (ANOVA), t-tests, and one-way were used to test for simple effects.

**Analysis**

Analysis of the data included Hotelling’s $T^2$, MANOVA and Multiple Regression.

**Hotelling’s $T^2$**

A Hotelling’s $T^2$ was utilized to determine differences in gender.
MANOVA

A Multiple Analysis of Variance (MANOVA) was utilized to determine if there was a significant mean difference between the four categories of Myers-Briggs personality type, gender and (1) LBAII Effectiveness Scores, (2) LBAII Flexibility scores, and (3) years of school administration experience. MANOVA was selected because it is an advanced statistical procedure which controls for power. The MANOVA determined interaction and main effects, but a post hoc analysis was necessary to determine simple effects. The post hoc analysis included ANOVA, t-tests, and one-way. The following list includes the MANOVA post hoc simple effects tests.

(1) **ANOVA**  Effectiveness by Gender (1,2) Myers-Briggs (1,4).
(2) **ANOVA**  Flexibility by Gender (1,2) Myers-Briggs (1,4).
(3) **ANOVA**  Years by Gender (1,2) Myers-Briggs (1,4).
(4) **t-test**  Groups=Gender (1,2)/Variable=Effectiveness.
(5) **t-test**  Groups=Gender (1,2)/Variable=Flexibility.
(6) **t-test**  Groups=Gender (1,2)/Variable=Years.
(7) **one-way**  Effectiveness by Myers-Briggs (1,4).
(8) **one-way**  Flexibility by Myers-Briggs (1,4).
(9) **one-way**  Years by Myers-Briggs (1,4).

Multiple Regression

Multiple regression was utilized to determine how much variance was explained by Myers-Briggs subscales (EI, SN, TF, and JP) in predicting LBAII® Effectiveness scores, LBAII® Flexibility scores, and years of experience in school administration. This study utilized Myers-Briggs continuous scores which ranged from 33 to 167. The E, S, T, and J scales ranged from 33 through
99 and the I, N, F, and P scales ranged from 101 through 167. Multiple Regression determined the relationship of the scores of the dependent variables (Effectiveness, Flexibility, and years) with the scores of the independent variables (Myers-Briggs personality type dichotomous subscales). Either the scores showed an inverse or a positive relationship. The following Figures 3.2-3.4 show the possible directions of the relationships.

Figure 3.2 Multiple Regression for Effectiveness

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>EI</th>
<th>SN</th>
<th>TF</th>
<th>IP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>I 80</td>
<td>I 167</td>
<td>N 167</td>
<td>F 167</td>
</tr>
<tr>
<td></td>
<td>↓</td>
<td>↓</td>
<td>↓</td>
<td>↓</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>E 50</td>
<td>E 99</td>
<td>S 99</td>
<td>T 99</td>
</tr>
<tr>
<td></td>
<td>↓</td>
<td>↓</td>
<td>↓</td>
<td>↓</td>
</tr>
</tbody>
</table>

Figure 3.2 shows the possibility of an inverse relationship between Effectiveness and the Extravert®/Introvert (EI) dimension, the Sensing/iNtuitive® (SN) dimension, the Thinking/Feeling (TF) dimension, and the Judging/Perceiving (JP) dimension.
Figure 3.3 Multiple Regression for Flexibility

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
<td>EI</td>
</tr>
<tr>
<td>I</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>E</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 3.3 shows the possibility of an inverse relationship between Flexibility and the EI dimension and a positive relationship between Flexibility and SN, TF, and JP.

Figure 3.4 Multiple Regression for Years of Administrative Experience

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years</td>
<td>EI</td>
</tr>
<tr>
<td>I</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>↓</td>
</tr>
<tr>
<td>E</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>↓</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
The possible relationships shown in Figure 3.4 are inverse between years of administrative experience and the dimension of EI and positive between years of experience and SN, TF, and JP.

Scores in the figures were continuous predictor variables and the expected relationships were either positive (as the independent variable score moved up, the dependent variable scores moved up also) or the relationships were inverse (as the independent variable score moved up, the dependent variable scores moved down). Relationships presented in Figures 3.2, 3.3, and 3.4 were only possibilities. Data gathering and analysis of data answered the questions about the relationships of the scores.

**Computer Program**

The Hotelling's $T^2$, MANOVA, and Multiple Regression analyses used the SPSS PC program presented below in Figure 3.5 and in Appendix D with mock data utilized to be assured that the program would work.
TITLE 'personality type and leadership style'.
DATA LIST fixed/ id 1-2 yrs 4-5 gender 7 myers 9 ei 11-13 sn 15-17 tf 19-21
   jp 23-25 eff 27-28 flex 30-31 s1 33-34 s2 36-37 s3 39-40 s4 42-43
   ps1 45 ps2 47 ss1 49 ss2 51 ds1 53 ds2 55.
VARIABLE LABELS yrs 'yrs of school administrative experience'.
genre 'male or female'. myers 'myers-briggs personality type'. eff 'leadership effectiveness'.
flex 'leadership flexibility'. ei 'extravert or introvert'. sn 'sensing or intuitive'. tf 'thinking or feeling'.
jp 'judging or perceiving'.
s1 'leader style 1'. s2 'leader style 2'. s3 'leader style 3'. s4 'leader style 4'. ps1 'primary style 1'.
ps2 'primary style 2'. ss1 'secondary style 1'. ss2 'secondary style 2'. ds1 'developing style 1'.
ds2 'developing style 2'.
VALUE LABELS gender 1 'male' 2 'female'.
myers 1 'istj' 2 'estj' 3 'intp' 4 'esfj'.
BEGIN DATA
END DATA.
*hotelling's T^2
manova eff flex yrs by gender(1,2)/ print = cellinfo(means,cov,cor)
   homogeneity(bartlett) signif(efsize)/ power.
manova eff flex yrs by gender(1,2) myers(1,4)/ print = cellinfo(means,cov,cor)
   homogeneity(bartlett) signif(efsize)/ power.
*manova simple effects tests.
anova eff by gender(1,2) myers(1,4). anova flex by gender(1,2) myers(1,4).
anova yrs by gender(1,2) myers(1,4).
t-test groups=gender(1,2)/ variable=eff.
t-test groups=gender(1,2)/ variable=flex.
t-test groups=gender(1,2)/ variable=yrs.
oneway eff by myers(1,4). oneway flex by myers(1,4). oneway yrs by myers(1,4).
regression variables= eff ei sn tf jp/ 
   dependent=eff/ method=enter.
regression variables=flex ei sn tf jp/ 
   dependent=flex/ method=enter.
regression variables=yrs ei sn tf jp/ 
   dependent=yrs/ method=enter.
FINISH.
**CHAPTER IV**

**FINDINGS**

**Introductory Statement**

This chapter contains the findings from statistical procedures conducted in this study. The research provided a balanced design with an equal number of males (n=40) and females (n=40) and an equal number of each of four Myers-Briggs personality types (ISTJ; ESTJ; INTP; and ESFP), nj = 20. Descriptive results are reported in Table 1 followed by the findings which will be reported in order of the hypotheses presented in Chapter 1.

**Descriptive Results**

Table 1 provides the means and standard deviations for the three dependent variables.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Means and Standard Deviations of Dependent Variables (n=80)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variables</td>
<td>X</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>51.62</td>
</tr>
<tr>
<td>Flexibility</td>
<td>17.36</td>
</tr>
<tr>
<td>Years</td>
<td>9.03</td>
</tr>
</tbody>
</table>
Mean Gender Differences in Effectiveness, Flexibility, and Years of Experience

HO1: There is no significant mean gender difference in LBAll Effectiveness scores, Flexibility scores, and years of experience in school administration.

The hypothesis is accepted. No significant differences in any of the three dependent variables were found between males and females. Note p > .05 for all dependent variables.

Hotelling's $T^2$ Results

The statistics utilized to test the first hypothesis was Hotelling's $T^2$.

The Hotelling's $T^2$ results are presented in Table 2.

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Male</th>
<th>Female</th>
<th>Univariate F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>51.98</td>
<td>6.02</td>
<td>51.28</td>
<td>6.28</td>
</tr>
<tr>
<td>Flexibility</td>
<td>17.48</td>
<td>4.12</td>
<td>17.25</td>
<td>5.31</td>
</tr>
<tr>
<td>Years</td>
<td>9.48</td>
<td>8.06</td>
<td>8.58</td>
<td>6.42</td>
</tr>
</tbody>
</table>
Mean Difference Between Myers-Briggs Personality Type and LBAII Effectiveness Scores, Flexibility Scores, and Years of Experience in School Administration

H02: There is no significant mean difference between the four categories of Myers-Briggs personality type in LBAII Effectiveness scores, Flexibility scores, and years of experience in school administration.

The second hypothesis is rejected. Although no significant differences are reported for Flexibility and years of experience dependent variables; Effectiveness (leader effectiveness) indicated a significant difference between the four Myers-Briggs personality types. The univariate F test between Effectiveness and Myers-Briggs personality types (F = 8.13; p < .00, n = 80) reported power of .99. Hotelling's Power reported .97 with an effect size of .117. Simple effects will indicate which personality categories significantly differ in Effectiveness scores.

MANOVA Results

Multiple Analysis of Variance was utilized to test the second hypothesis with results reported in Table 3. Table 3 presents MANOVA results for each dependent variable. Note the non-significance of Flexibility and years of experience (p > .05) and the significance between Effectiveness and Myers-Briggs personality types (p < .00) shown in Table 3.
Table 3  MANOVA

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Univariate F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>713.65</td>
<td>4</td>
<td>178.41</td>
<td>6.18</td>
<td>.00</td>
</tr>
<tr>
<td>Gender</td>
<td>9.80</td>
<td>1</td>
<td>9.80</td>
<td>.34</td>
<td>.56</td>
</tr>
<tr>
<td>Myers</td>
<td>703.85</td>
<td>3</td>
<td>234.62</td>
<td>8.13</td>
<td>.00</td>
</tr>
<tr>
<td>Flexibility</td>
<td>118.15</td>
<td>4</td>
<td>29.54</td>
<td>1.38</td>
<td>.25</td>
</tr>
<tr>
<td>Gender</td>
<td>1.01</td>
<td>1</td>
<td>1.01</td>
<td>.05</td>
<td>.83</td>
</tr>
<tr>
<td>Myers</td>
<td>117.14</td>
<td>3</td>
<td>39.05</td>
<td>1.82</td>
<td>.15</td>
</tr>
<tr>
<td>Years</td>
<td>131.85</td>
<td>4</td>
<td>32.96</td>
<td>.64</td>
<td>.64</td>
</tr>
<tr>
<td>Gender</td>
<td>16.20</td>
<td>1</td>
<td>16.20</td>
<td>.31</td>
<td>.58</td>
</tr>
<tr>
<td>Myers</td>
<td>115.65</td>
<td>3</td>
<td>38.55</td>
<td>.74</td>
<td>.53</td>
</tr>
</tbody>
</table>

**MANOVA Simple Effects Tests**

MANOVA simple effects tests include the Analysis of Variance (ANOVA) and Scheffe' post-hoc procedures. ANOVA results are presented in Tables 4, 4a; 5, 5a; and 6, 6a for each dependent variable respectively. Tables 4, 4a show the significance between Effectiveness scores and Myers-Briggs personality types, specifically ESTJ. Although no significant differences are reported for Flexibility and years of experience, descriptive data (means and standard deviations) and statistics are reported in Tables 5, 5a and 6, 6a to indicate the similarity in means across the groups.
Table 4  Analysis of Variance on Effectiveness Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>9.80</td>
<td>1</td>
<td>178.41</td>
<td>6.18</td>
<td>.56</td>
</tr>
<tr>
<td>Myers</td>
<td>703.85</td>
<td>3</td>
<td>234.62</td>
<td>8.13</td>
<td>.00^a</td>
</tr>
<tr>
<td>Gender by Myers</td>
<td>167.10</td>
<td>3</td>
<td>55.70</td>
<td>1.93</td>
<td>.13</td>
</tr>
<tr>
<td>Residual</td>
<td>2,078.00</td>
<td>72</td>
<td>28.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2,958.75</td>
<td>79</td>
<td>37.45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^aMyers significantly differed in Effectiveness scores.

Table 4a includes Scheffe' results which provides a conservative post hoc analysis of Effectiveness scores for Myers-Briggs personality types. Post hoc results indicate a significant difference between Effectiveness scores of ESTJ personality type category versus ISTJ, INTP, and ESFJ.

Table 4a  Post Hoc Analysis of Effectiveness Scores for Myers-Briggs Personality Categories

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>X</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myers-Briggs Groups (nj = 20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - ISTJ</td>
<td>50.25</td>
<td>3.75</td>
</tr>
<tr>
<td>2 - ESTJ</td>
<td>56.75</td>
<td>7.81^a</td>
</tr>
<tr>
<td>3 - INTP</td>
<td>49.80</td>
<td>4.20</td>
</tr>
<tr>
<td>4 - ESFJ</td>
<td>49.70</td>
<td>5.10</td>
</tr>
</tbody>
</table>

^aESTJ significantly differed from ISTJ, INTP, and ESFJ.

F_{Scheffe} = 5.77
Tables 5, 5a show no significant differences. They are included to show the similarity of means of scores for the dependent variable -- Flexibility. Note p > .05 for all variables.

Table 5  Analysis of Variance on Flexibility Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1.01</td>
<td>1</td>
<td>1.01</td>
<td>.31</td>
<td>.58</td>
</tr>
<tr>
<td>Myers</td>
<td>117.14</td>
<td>3</td>
<td>39.05</td>
<td>.74</td>
<td>.53</td>
</tr>
<tr>
<td>Gender by Myers</td>
<td>101.84</td>
<td>3</td>
<td>33.95</td>
<td>1.86</td>
<td>.15</td>
</tr>
<tr>
<td>Residual</td>
<td>1,542.50</td>
<td>72</td>
<td>21.42</td>
<td>1.16</td>
<td>.34</td>
</tr>
<tr>
<td>Total</td>
<td>1,762.49</td>
<td>79</td>
<td>22.31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5a  Post Hoc Analysis of Flexibility Scores

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>X</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myers-Briggs Groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(n_j =20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - ISTJ</td>
<td>17.85</td>
<td>4.69</td>
</tr>
<tr>
<td>2 - ESTJ</td>
<td>19.10</td>
<td>4.13</td>
</tr>
<tr>
<td>3 - INTP</td>
<td>16.50</td>
<td>4.44</td>
</tr>
<tr>
<td>4 - ESFJ</td>
<td>16.00</td>
<td>5.27</td>
</tr>
</tbody>
</table>

Tables 6, 6a show no significant differences but are included to show similarity of means of scores for the dependent variable -- years of experience. Note p > .05 for all variables.
Table 6 Analysis of Variance on Years of Experience of School Administrators

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>16.20</td>
<td>1</td>
<td>16.20</td>
<td>.31</td>
<td>.58</td>
</tr>
<tr>
<td>Myers</td>
<td>115.65</td>
<td>3</td>
<td>38.55</td>
<td>.74</td>
<td>.53</td>
</tr>
<tr>
<td>Gender by Myers</td>
<td>289.20</td>
<td>3</td>
<td>96.37</td>
<td>1.86</td>
<td>.15</td>
</tr>
<tr>
<td>Residual</td>
<td>3,737.00</td>
<td>72</td>
<td>51.90</td>
<td>1.16</td>
<td>.34</td>
</tr>
<tr>
<td>Total</td>
<td>4,157.95</td>
<td>79</td>
<td>52.63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6a Post Hoc Analysis of Years of Experience of School Administrators

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>X</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myers-Briggs Groups (n=20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - ISTJ</td>
<td>10.50</td>
<td>8.04</td>
</tr>
<tr>
<td>2 - ESTJ</td>
<td>8.05</td>
<td>7.35</td>
</tr>
<tr>
<td>3 - INTP</td>
<td>7.65</td>
<td>7.04</td>
</tr>
<tr>
<td>4 - ESFJ</td>
<td>9.90</td>
<td>6.68</td>
</tr>
</tbody>
</table>

Relationship Between Myers-Briggs Subscales in Predicting LBAII Effectiveness Scores

H03: There is no significant relationship between Myers-Briggs subscales (EI, SN, TF, and JP) in predicting LBAII Effectiveness scores.

This hypothesis is accepted. No significant predictors were found with Myers-Briggs subscales in predicting LBAII Effectiveness scores (Tables 7, 7a).
Multiple Regression Results

Multiple regression was utilized to test H03, H04, and H05. Results are reported in Table 7, 7a; 8, 8a; and 9, 9a.

Table 7  Correlation of Effectiveness with Myers-Briggs Subscales

<table>
<thead>
<tr>
<th></th>
<th>Effect.</th>
<th>EI</th>
<th>SN</th>
<th>TF</th>
<th>JP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect.</td>
<td>1.00</td>
<td>-0.11</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EI</td>
<td></td>
<td>1.00</td>
<td>-0.15</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>SN</td>
<td>-0.11</td>
<td>0.15</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TF</td>
<td>-0.05</td>
<td>-0.47</td>
<td>0.12</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>JP</td>
<td>-0.12</td>
<td>0.13</td>
<td>0.63</td>
<td>0.08</td>
<td>1.00</td>
</tr>
<tr>
<td>Means</td>
<td>51.63</td>
<td>99.78</td>
<td>85.20</td>
<td>89.60</td>
<td>83.42</td>
</tr>
<tr>
<td>S.D.</td>
<td>6.12</td>
<td>28.27</td>
<td>25.97</td>
<td>24.61</td>
<td>27.44</td>
</tr>
</tbody>
</table>

Table 7a  Multiple Regression on Effectiveness

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>b</th>
<th>SEb</th>
<th>b</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>-0.03</td>
<td>0.03</td>
<td>-0.15</td>
<td>0.25</td>
</tr>
<tr>
<td>SN</td>
<td>-0.00</td>
<td>0.04</td>
<td>-0.01</td>
<td>0.93</td>
</tr>
<tr>
<td>TF</td>
<td>-0.03</td>
<td>0.03</td>
<td>-0.12</td>
<td>0.35</td>
</tr>
<tr>
<td>JP</td>
<td>-0.02</td>
<td>0.03</td>
<td>-0.09</td>
<td>0.56</td>
</tr>
</tbody>
</table>

R² = 0.04, no predictors were significant.

Relationship Between Myers-Briggs Subscales in Predicting LBAII Flexibility Scores

H04: There is no significant relationship between Myers-Briggs subscales (EI, SN, TF, and JP) in predicting LBAII Flexibility scores.

This hypothesis is accepted. No significant predictors were found with Myers-Briggs subscales in predicting LBAII Flexibility scores (Tables 8, 8a).
Table 8  Correlation of Flexibility with Myers-Briggs Subscales

<table>
<thead>
<tr>
<th></th>
<th>Flex.</th>
<th>EI</th>
<th>SN</th>
<th>TF</th>
<th>JP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flex.</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EI</td>
<td>-0.08</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SN</td>
<td>-0.20</td>
<td>0.15</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TF</td>
<td>-0.07</td>
<td>-0.47</td>
<td>0.12</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>JP</td>
<td>-0.09</td>
<td>0.13</td>
<td>0.63</td>
<td>0.08</td>
<td>1.00</td>
</tr>
<tr>
<td>Means</td>
<td>17.36</td>
<td>99.78</td>
<td>85.20</td>
<td>89.60</td>
<td>83.42</td>
</tr>
<tr>
<td>S.D.</td>
<td>4.72</td>
<td>28.27</td>
<td>25.97</td>
<td>24.61</td>
<td>27.44</td>
</tr>
</tbody>
</table>

Table 8a  Multiple Regression on Flexibility

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>b</th>
<th>SEb</th>
<th>b</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>-0.02</td>
<td>0.02</td>
<td>-0.10</td>
<td>0.45</td>
</tr>
<tr>
<td>SN</td>
<td>-0.04</td>
<td>0.03</td>
<td>-0.21</td>
<td>0.16</td>
</tr>
<tr>
<td>TF</td>
<td>-0.02</td>
<td>0.03</td>
<td>-0.10</td>
<td>0.45</td>
</tr>
<tr>
<td>JP</td>
<td>0.01</td>
<td>0.03</td>
<td>0.06</td>
<td>0.66</td>
</tr>
</tbody>
</table>

R² = .05, no predictors were significant.

Relationship Between Myers-Briggs Subscales in Predicting Years of Experience of School Administrators

HO5: There is no significant relationship between Myers-Briggs subscales (EI, SN, TF, and JP) in predicting years of experience of school administrators.

This hypothesis is rejected. JP (Judging/Perceiving) was found to be a significant predictor of years of experience (Tables 9, 9a).
Table 9  Correlation of Years of Experience of School Administrators with Myers-Briggs Subscales

<table>
<thead>
<tr>
<th></th>
<th>Yrs.</th>
<th>EI</th>
<th>SN</th>
<th>TF</th>
<th>JP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yrs.</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EI</td>
<td>-.03</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SN</td>
<td>-.02</td>
<td>.15</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TF</td>
<td>.01</td>
<td>-.47</td>
<td>.12</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>JP</td>
<td>-.21</td>
<td>.13</td>
<td>.63</td>
<td>.08</td>
<td>1.00</td>
</tr>
<tr>
<td>Means</td>
<td>9.03</td>
<td>99.78</td>
<td>85.20</td>
<td>89.60</td>
<td>83.42</td>
</tr>
<tr>
<td>S.D.</td>
<td>7.25</td>
<td>28.27</td>
<td>25.97</td>
<td>24.61</td>
<td>27.44</td>
</tr>
</tbody>
</table>

Table 9a  Multiple Regression on Years of Experience of School Administrators

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>b</th>
<th>SEb</th>
<th>b</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>.02</td>
<td>.03</td>
<td>.08</td>
<td>.57</td>
</tr>
<tr>
<td>SN</td>
<td>.05</td>
<td>.04</td>
<td>.17</td>
<td>.24</td>
</tr>
<tr>
<td>TF</td>
<td>.04</td>
<td>.04</td>
<td>.05</td>
<td>.70</td>
</tr>
<tr>
<td>JP</td>
<td>-.09</td>
<td>.04</td>
<td>-.34</td>
<td>.02</td>
</tr>
</tbody>
</table>

R^2 = .07, JP is a significant predictor of years of experience.

Summary

No gender differences were found in any of the three dependent variables. Significant differences found are listed as follows.

1. Myers-Briggs personality type categories involved different leader Effectiveness averages. Specifically, ESTJ personality type differed in leader Effectiveness from the other groups, ISTJ, INTP, and ESFJ.
2. The JP variable was a significant predictor of years of experience of school administrators. As years of experience increase, judging was increased as a significant personality variable rather than perceiving.
CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Introduction
This chapter summarizes the purpose for the study, literature review, methods and procedures, and findings. Finally, conclusions and recommendations are made based on the findings of the study.

Purpose for the Study
Studies have shown that personality traits cause individuals to act in a given way. These traits can translate into leadership skills. Therefore, it is fitting to study personality types and their relationship to leader effectiveness and flexibility.

School districts are facing the challenge of downsizing central administration and placing more responsibility on local campus administrators. This site-based decision-making brings with it accountability related to student performance. Campus administrators are evaluated based on student performance on their campuses. In addition, central administrators are accountable for district-wide student performance. Centrally, administrators are required to assume multiple roles, taking responsibility for many district-wide administrative tasks. Greater accountability for local campus administrators and the phenomenon of assuming multiple roles for central administrators requires efficient and effective leadership.
Effective leadership requires utilization of multiple skills. School administrators who understand personality types in relation to leadership strengths are able to be flexible in meeting situational demands in a changing educational climate. Therefore, a study of personality type and its relationship to leader effectiveness and flexibility is of interest to school administrators.

**Literature Review**

Leadership as a concept appeared in the first half of the nineteenth century explaining the control Parliament exerted over British citizens. In the latter decades of the nineteenth century and the early decades of the twentieth century, leadership was a one-way influence. The person in power (leader) influenced and controlled the followers.

The model utilized for this study, Situational Leadership II, was developed by Kenneth Blanchard and Paul Hersey. The Situational Leadership II model is based on selecting the appropriate leadership style for the individual situation and to match the development level of followers. The model utilizes the Leader Behavior Analysis II (LBAII®) instrument to determine effectiveness, flexibility, and style of leadership. This study utilized the LBAII® Self-A to measure effectiveness and flexibility of school administrators.

The personality of school administrators was measured utilizing the Myers-Briggs Type Indicator (MBTI®) instrument. MBTI® measures sixteen combinations of four preferences of interests, values, and skills which identify personality types. This study selected four personality types which could be considered more common to school administrators than the other twelve types. The four types were selected to assure that each preference was represented in the study.
The four dichotomous variables which make up the sixteen personality types are as follows:

1. Extravert® or Introvert - outer world versus inner world;
2. Sensing or iNtuition® - present and concrete versus future;
3. Thinking or Feeling - objective logic versus subjective evaluation; and
4. Judging or Perceiving - planned and organized versus flexible and spontaneous.

Four types selected for this study and a brief description of each are as follows:

1. ISTJ - serious and quiet individuals who use their own heads to make decisions;
2. ESTJ - individuals who are organizers and like to be in charge;
3. INTP - quiet and reserved individuals who are interested in ideas and have an interest in science and theories; and
4. ESFJ - individuals who are cooperative and perfect members of committees.

Several previous studies created interest for this particular study. However, one in particular was a study which utilized the MBTI and Principal Problem Strategy Questionnaire (PPSQ). PPSQ was administered to 86 principals. It was determined that personality type preference as measured by MBTI is a major determinant of leader behavior problem solving strategies utilized to solve the PPSQ problem situations. The current study addresses the relationship between personality type preferences and gender to leader effectiveness, flexibility, and years of experience as a school administrator.
Methods and Procedures

The MBTI® and LBAII® Self-A instruments were administered to 80 school administrators in Texas, specifically from eleven districts in Dallas and Tarrant counties. Although the overall test at the .05 level of significance with a power of .80 only required 49 subjects, a balanced design was desired. The balanced design utilized in this study required 10 males and 10 females in each of the four personality type groups. The design utilizes Analysis of Variance (ANOVA), and a minimum of 10 subjects per cell is desired for a total of eighty 80 subjects. Statistical tests utilized to test the hypotheses included Hotelling's $T^2$, MANOVA, ANOVA, and Multiple Regression.

The independent variables for the study were gender and personality type category which were four of the Myers-Briggs personality type groups (ISTJ, ESTJ, INTP, and ESFJ). The dependent variables were leader effectiveness and leader flexibility measured by LBAII® Self-A instrument and years of experience in school administration.

Findings

Findings of the study are listed as follows:

1. No gender differences were found in any of the three dependent variables.

2. A significant difference was found in LBAII® Effectiveness scores of the ESTJ personality type category.

3. There was no significant mean difference between the four categories of Myers-Briggs personality type and LBAII® Flexibility scores.
4. There was no significant mean difference between the four categories of Myers-Briggs personality type and years of experience of school administrators.

5. There was no significant relationship between the Myers-Briggs personality type subscales and LBAII® Effectiveness scores.

6. There was no significant relationship between the Myers-Briggs personality type subscales and LBAII® Flexibility scores.

7. The JP variable was a significant predictor of years of experience of school administrators. As years of experience increase, judging was increased as a significant personality variable rather than perceiving.

Conclusions

Conclusions are based on findings of the study.

1. No gender differences were found in any of the three dependent variables, leader effectiveness, leader flexibility or years of experience in school administration. The review of literature included information which stated that previous demographic studies with the LBAII® instrument yielded results with no significant findings.

2. A significant difference was found in effectiveness scores of ESTJ personality type category. ESTJ was defined as an individual with a mind for business who can be a good administrator but needs to work at understanding others and their feelings. The ESTJ is an organizer and likes to be in charge.

3. Another significant finding was that the JP variable was a significant predictor of years of experience of school administrators. JP is the Judging/Perceiving variable. The findings indicate as years of experience increase, judging increases as a personality variable. This finding is not
surprising since judging characterizes individuals who prefer an ordered approach to life and having things settled. The perceiving preference is a spontaneous approach to life. Demands of an administrator's job could cause an individual to learn to act in a judging (ordered) way rather than acting in a spontaneous manner. The longer an individual serves in the capacity of school administrator, the more likely s/he would be to respond as a judging preference.

Recommendations

The following recommendations were formulated on the basis of the related literature, findings, and conclusions of this study.

1. Gender differences should not be considered as a significant factor in understanding leadership effectiveness and flexibility.

2. ESTJ personality type as measured by MBTI® had significantly higher leader effectiveness scores. Therefore, MBTI® should be offered to all administrators to provide an understanding of personality attributes which contribute to leader effectiveness.

3. JP (Judging/Perceiving) variable was a significant predictor of years of experience of school administrators. As years of experience increased judging increased as a personality variable. Characteristics of judging which contribute to administrative effectiveness should be investigated to use in leadership training for school administrators.

4. Based on the mean scores on the LBAII®, the Situational Leadership® II model should be utilized in school administrator pre-service training as a tool to help beginning administrators understand effective leadership practices.
5. LBAII® scores were not higher for administrators with more years of experience. Therefore, on-going staff development should be offered to teach effective leadership techniques based on the Situational Leadership® II model.
APPENDIX A

LETTERS OF PERMISSION
October 1, 1994

Linda K. Andersen  
3420 Andover Drive  
Bedford, Texas 76021

Dr. Drea Zigarmi  
c/o Blanchard Training and Development, Inc  
125 State Place  
Escondido, California 92029

Dear Dr. Zigarmi:

This request is for permission to use the LBAII Self-A instrument to gather data for my dissertation. I am most interested in the findings of your research and would like to do further study of the dimensions measured by your instrument. I am a student at University of North Texas in the College of Education with a major in Applied Technology, Training and Development and a minor in Educational Administration.

My proposal is to correlate the sixteen personality types measured by the Myers-Briggs Self-Scorable Type Indicator with Effectiveness, Flexibility, and Style scores measured by the LBAII Self-A instrument for public school administrators. If permission is granted, I will need 100 LBAII Self-A instruments. In addition, I will gladly share the findings from my research with your group.

Your prompt consideration of my request will be most appreciated, as I would like to gather data from your instrument during this semester. Also, I would appreciate receiving information concerning ordering copies of the instrument.

Respectfully submitted,

Linda K. Anderson
Ms. Linda K. Anderson  
3420 Andover Drive  
Bedford, TX 76021  

Dear Linda:  

Over the years the LBAII® Self or Other has been used in over forty dissertations on Master studies. We are pleased that the model and instruments have become more visible. As the requests for LBAII®s increase, we have found it necessary to humbly request that researchers follow some general guidelines.  

BTD will provide the LBAII® instruments to you at no cost providing you are willing to meet the following conditions:  

- That any dissertations, papers, etc. written from this theoretical framework and using these instruments give citations and references as to where the instruments can be obtained.  

- That you do not sell or make economic gain from selling the instruments for popular consumption and that any copies of the instruments used be clearly marked "For research only."  

- That Blanchard Training and Development receive a full bound copy of any dissertation or monograph written concerning this research.  

- That Blanchard Training and Development be allowed to pass on your research (in summary form) to others who might be doing similar research as a way of supporting those who are working hard to further the field of education.  

- That the following scores be produced and reported in your publication using your sample base.
1. Average Flexibility Score and Standard Deviation
2. Average Effectiveness Score and Standard Deviation
3. Average Style Score Means and Standard Deviations to S1 through S4
4. Per cent of Primary Styles 1 through S4
5. Per cent of Secondary Styles 1 through S4
6. Per cent of Developing Styles 1 through S4
7. Maximums and Minimums

This request has emerged because researchers do not fully utilize the six scores that can be derived from the LBAII®. With these scores, BTD will be able to compare across populations. These numbers may aid in a future meta analysis.

Optional scores that would help further comparisons are

8. Average Flexibility Scores and Standard Deviations by Gender
9. Average Effectiveness Scores and Standard Deviations by Gender
10. Average Style Score Means and Standard Deviations by Gender

Upon your request we will be glad to send you a copy of the Reliability/Validity Study which describes the LBAII® Self and Other and relevant research. If you decide to use the LBAII®, please call me so we can discuss your research design.

Enclosed is an article which summarizes some of the changes in the model since 1981 and some pertinent research findings.

Sincerely,

Drea Zigarmi, Ed.D.

DZ:JK

Research Coordinator

Enc: Situational Leadership after 25 Years
November 22, 1994

Linda K. Anderson
3420 Andover Drive
Bedford, TX 76021

Drea Zigarmi, Ed.D.
Blanchard Training and Development, Inc.
125 State Place
Escondido, CA 92029

Dear Dr. Zigarmi:

Thank you for the copy of the Validity and Reliability Study. I am hoping to conduct my data gathering by administering the LBAII-Self and the MBTI-Form G to eighty (80) school administrators during the month of January. I completed the LBAII Self-A, 1991, instrument when I first became acquainted with it in a doctoral level administration course in 1992 at University of North Texas. That experience stimulated my interest in situational leadership.

The purpose of my study is to determine if there is a relationship between personality types of school administrators and dimensions of leader effectiveness, flexibility, and style and to verify that experience and leadership training are not variables contributing to the relationship. It is hoped that the information obtained from this investigation can assist administrators in their development of an attitude of continuous improvement, not just school improvement but personal improvement of those who are in leadership positions, providing vision for change.

I believe that the 20 situations provided on the LBAII Self will provide great insight into the effectiveness of the school administrators in the sample. I agree to carry out the stipulations in your October 12th letter. Is it possible to receive this instrument during December so that plans can be made to administer it to the 80 school administrators during January? Thank you for your interest in my research.

Sincerely,

Linda K. Anderson
Ms. Linda Anderson  
3420 Andover Drive  
Bedford, TX  76021

Dear Linda:

Thank you for your letter of November 22. It clarifies your dissertation topic more fully.

Enclosed you will find the 80 LBAIs that you requested. Please keep me informed as your dissertation progresses.

Yours truly,

Drea Zigarmi, Ed.D.
Research Coordinator

DZ:JK

Enclosures
June 15, 1995

Linda K. Anderson  
3420 Andover Drive  
Bedford, Texas 76021

Dr. Drea Zigarmi  
Blanchard Training and Development, Inc.  
125 State Place  
Escondido, California 92029

Dear Dr. Zigarmi:

Attached is the descriptive data which you requested from my research conducted utilizing the LBAII® Self-A instrument. A complete and bound copy of my dissertation will be provided to you after final approval by my committee.

Data for my study was gathered in April and May utilizing 80 school administrators from eleven Texas school districts in Dallas and Tarrant counties. The dissertation was entitled, "An Investigation of School Administrator Personality Type and Gender To Leader Effectiveness, Flexibility, and Years of Experience."

Thank you for providing the instruments. Once again, I will send a bound copy of the dissertation as soon as it is available.

Sincerely,

[Signature]

Linda K. Anderson
Scores requested by Blanchard Training and Development as condition of utilizing LBAII instrument.

1. Average Flexibility Score and Standard Deviation - 17.36, 4.72
3. Average Style Score Means and Standard Deviations
   Styles 1-4
   S1 - 1.25, 1.28 S3 - 9.95, 3.15
   S2 - 4.62, 2.73 S4 - 4.19, 2.03
4. Percent of Primary Styles 1-4
   S1 - 0% S3 - 73%
   S2 - 18% S4 - 9%
5. Percent of Secondary Styles 1-4
   S1 - 6% S3 - 16%
   S2 - 33% S4 - 45%
6. Percent of Developing Styles 1-4
   S1 - 54% S3 - 0%
   S2 - 25% S4 - 21%
7. Maximum and Minimum Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Maximum</th>
<th>Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexibility</td>
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<td>6</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>74</td>
<td>40</td>
</tr>
<tr>
<td>*Style 1</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>*Style 2</td>
<td>12</td>
<td>0</td>
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<tr>
<td>*Style 3</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>*Style 4</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

*Style Score Maximums and Minimums indicate the frequency that each style was selected by respondents.
8. **Average Flexibility Scores and Standard Deviation by Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>( \bar{X} )</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>17.475</td>
<td>4.120</td>
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<tr>
<td>Female</td>
<td>17.250</td>
<td>5.310</td>
</tr>
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</table>

9. **Average Effectiveness Scores and Standard Deviation by Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>( \bar{X} )</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>51.975</td>
<td>6.015</td>
</tr>
<tr>
<td>Female</td>
<td>51.275</td>
<td>6.280</td>
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</table>

10. **Average Style Score Means and Standard Deviation by Gender**

<table>
<thead>
<tr>
<th>Style/Gender</th>
<th>( \bar{X} )</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Style 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>1.14</td>
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<tr>
<td>Female</td>
<td>1.20</td>
<td>1.42</td>
</tr>
<tr>
<td><strong>Style 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>5.10</td>
<td>2.88</td>
</tr>
<tr>
<td>Female</td>
<td>4.15</td>
<td>2.52</td>
</tr>
<tr>
<td><strong>Style 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>9.78</td>
<td>2.78</td>
</tr>
<tr>
<td>Female</td>
<td>10.13</td>
<td>3.52</td>
</tr>
<tr>
<td><strong>Style 4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3.85</td>
<td>1.82</td>
</tr>
<tr>
<td>Female</td>
<td>4.53</td>
<td>2.20</td>
</tr>
</tbody>
</table>
APPENDIX B

HUMAN SUBJECTS FORM
Dear Participant,

I am conducting a study to fulfill the final requirements of a Ph.D. at University of North Texas. The title of my study is "An Investigation of School Administrator Personality Type and Gender Relatedness to Leader Effectiveness, Flexibility, and Years of Experience."

Your participation in this study is appreciated. There will be two instruments which you will complete, the Myers-Briggs Type Indicator® and the Leader Behavior Analysis II®. Total time for completion and scoring of the instruments is 40-50 minutes. Feedback will be provided concerning personality type and leadership style. The total time needed for your participation in the study is no longer than one hour. Your responses will be held in strictest confidence. In fact, no names are needed, only your gender and number of years as a school administrator.

Once again, thank you for your willingness to participate in this research study.

Sincerely,

Linda Anderson

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CONSENT FORM

I agree to participate in the study, "An Investigation of School Administrator Personality Type and Gender Relatedness to Leader Effectiveness, Flexibility, and Years of Experience." I realize that my participation is completely anonymous except for providing my gender and years of experience. I understand that my participation is completely voluntary and I may choose to withdraw at any time without penalty or prejudice.

__________________________
Signature of Participant and Date

(If you have questions, please call Linda Anderson, 354-7233)

THIS PROJECT HAS BEEN REVIEWED BY THE UNIVERSITY OF NORTH TEXAS COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS.
APPENDIX C

SAMPLE INSTRUMENT - DEMOGRAPHICS
DEMOGRAPHIC DATA

Please complete the items below.

1.0 Number of years in administration, including current year.

___ 1.1 Years

2.0 Gender

___ 3.1 Male

___ 3.2 Female

3.0 School District______________________________
Computer Program

The SPSS program to analyze the research questions is provided below with mock data included to assure that the program would work.

TITLE 'personality type and leadership style'.
DATA LIST fixed/ id 1-2 yrs 4-5 gender 7 myers 9 ei 11-13 sn 15-17 tf 19-21
jp 23-25 eff 27-28 flex 30-31 s1 33-34 s2 36-37 s3 39-40 s3 42-43
psl 45 ps2 47 ss1 49 ss2 51 ds1 53 ds2 55.
VARIABLE LABELS yrs 'yrs of school administrative experience'.
gender 'male or female'.
myers 'myers-briggs personality type'.
eff 'leadership effectiveness'. flex 'leadership flexibility'. ei 'extravert or introvert'. sn 'sensing or intuitive'. tf 'thinking or feeling'. jp 'judging or perceiving'.
s1 'leader style 1'. s2 'leader style 2'. s3 'leader style 3'. s4 'leader style 4'. ps1 'primary style 1'.
ps2 'primary style 2'. ss1 'secondary style 1'. ss2 'secondary style 2'. ds1 'developing style 1'. ds2
'developing style 2'.
VALUE LABELS gender 1 'male' 2 'female'./
myers 1 'istj' 2 'esfj' 3 'intp' 4 'esfj'./
BEGIN DATA
01 06 24 065 097 129 095 48 26 03 05 06 06 34 20 10
02 05 13 109 101 097 107 54 22 02 04 06 07 34 20 10
03 06 22 089 053 089 065 65 24 04 03 06 07 40 31 20
04 10 13 109 105 073 155 46 16 00 10 07 03 20 30 41
05 10 24 051 091 123 095 40 20 03 02 08 07 34 00 12
06 14 21 107 091 089 077 53 19 00 11 07 02 03 03 04 1
07 12 14 053 047 131 069 56 22 03 03 09 05 30 40 21
08 01 11 123 067 069 051 54 21 02 04 08 07 30 42 10
09 05 14 097 071 103 055 52 18 00 06 10 04 30 24 10
10 10 23 103 131 081 103 51 18 00 04 10 06 30 42 10
11 13 12 093 093 087 098 61 18 02 03 11 04 30 40 21
12 25 23 111 133 091 109 57 14 00 07 11 02 03 20 41
13 05 23 143 141 097 145 51 08 00 02 16 02 30 00 24
14 16 12 063 079 061 053 49 14 01 03 13 03 30 00 24
15 08 21 139 077 095 051 44 18 00 05 11 04 30 24 10
16 08 13 113 109 087 115 50 22 01 07 07 05 23 40 10
END DATA.
*Hotelling's $T^2$

```
manova eff flex yrs by gender(1,2)/print = cellinfo(means,cov,cor)
    homogeneity(bartlett) signif(efsize)/ power.
manova eff flex yrs by gender(1,2) myers(1,4)/print = cellinfo(means,cov,cor)
    homogeneity(bartlett) signif(efsize)/ power.
```

*Manova simple effects tests.

```
anova eff by gender(1,2) myers(1,4). anova flex by gender(1,2) myers(1,4).
anova yrs by gender(1,2) myers(1,4).
t-test groups=gender(1,2)/variable=eff.
t-test groups=gender(1,2)/variable=flex.
t-test groups=gender(1,2)/variable=yrs.
oneway eff by myers(1,4). oneway flex by myers(1,4). oneway yrs by myers(1,4).
regression variables= eff ei sn tf jp/
    dependent=eff/
    method=enter.
regression variables=flex ei sn tf jp/
    dependent=flex/ method=enter.
regression variables=yrs ei sn tf jp/
    dependent=yrs/ method=enter.
```

FINISH.
REFERENCES


Amburg, David Van. "Required Sample Size as a Function of Population Size, Desired Accuracy (within 5, 3, or 1%) Level of Confidence." Market Source, Inc.


Blanchard, Kenneth H.; Hambleton, Ron; Zigarmi, Drea; and Forsyth, Doug. Leader Behavior Analysis (Self and Other), Escondido, CA: Blanchard
Training and Development, Inc., 1982; revised version, the LBAII Self and Other, 1985.


Lewin, Kurt, Lippett, R., and White, R. "Leader Behavior and Member Reaction in Three Social Climates," *Group Dynamics: Research and


Stogdill, Ralph and Coons, Alvin (eds.). Leader Behavior: Its Description and Measurement, Research Monograph No. 88, Columbus, Ohio: Bureau of Business Research, Ohio State University, 1957.


