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Profiles in excellence–leadership styles of female principals in high schools of excellence

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PROFILES IN EXCELLENCE—LEADERSHIP STYLES OF

FEMALE PRINCIPALS IN HIGH SCHOOLS

OF EXCELLENCE

by

PATRICIA B. HARRIS

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
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of the Requirements for the Degree
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APPROVAL PAGE

This dissertation has been approved by the following comittee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

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There is little research available on the successful female high school principal. This study initiates a combination of cognitive and preference patterns and leadership styles research of successful female high school principals in schools of excellence in the Southern region of the United States (schools in states of the Southern Association of Colleges and Schools area of accreditation) on an exploratory level. This study is a descriptive comparison of nine female secondary school principals using a quasi-experimental design combining ex post facto, descriptive data with case studies. Data are obtained through questionnaires, surveys, and interviews, and the administering of the Leader Effectiveness and Adaptability Description Self and Other Evaluations   (LEAD Self and Other), the Herrmann Brain Dominance Survey , and the Leader Behavior Description Questionnaire (LBDQ). Statistical procedures that are used to investigate relationships and differences in the data include Chi Square analyses, scattergrams, Pearson r correlations, Spearman rho, z scores and T scores. The dominant primary style of leadership for these principals is participating according to the LEAD. From the Brain Dominance Survey it is found that seven, or 78 per cent of these principals are holistic or whole brain (like chief executive officers in large corporations). When comparing the total mean for the females in this study on the LBDQ with the total mean for the norming group (which are all male), the principal group is contained within the 95 per cent confidence of the male norming group: female mean=32.8; male mean=32.6; SE_m=1.6; confidence intervals=31-34.2. A Pearson r deviation formula, r_{xy} is found to be +.64; a moderate correlation between raw scores on the Brain Dominance Survey and the raw scores on the LBDQ. A Spearman rho is also computed at +.64. However, the .05 level is .66. This indicates that the moderate positive correlation between high scores on the Brain Dominance Survey and high scores on the LBDQ is not quite statistically significant at the .05 level. Based on the data presented all hypotheses were retained. School boards and superintendents should consider active recruitment of women principals since research demonstrates their ability.

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CHAPTER I

INTRODUCTION TO THE STUDY

<u>INTRODUCTION</u>

The battle cry of our education system, the populace, and our political leaders is "reform". Our education system needs a new vision and new leaders who can conceptualize what the organization can become. Our schools are usually shaped by beliefs about "what should be", which, unfortunately, are generally conservative viewpoints. Efforts to bring about changes and new visions are likely to be long and painful. These efforts should incorporate intuitive and conceptualized thought processes. Mintzberg (1976) emphasizes the importance of whole brain or holistic thinking in administrative leaders.

Other researchers (Herrmann. 1982; Norris. 1984) studying the brain found the left hemisphere to be the center for analytical, sequential and verbal thought and also for reading, mathematics, writing and speaking. The right hemisphere was found to control intuition and creative thought as well as being the center for emotion. The right hemisphere is holistic in nature.

Studies by Norris (1984) also indicated that most education leaders use the left hemisphere predominantly while most top-level administrators (CEOs) in the business world use both logical thinking and holistic-intuitive processes. Both hemispheres of the brain are important in effective leadership. It would appear that educational leaders could improve their effectiveness by using a "whole-brained" approach to leading.

Historically our society has ignored women as potential leaders. Schools and schooling have been controlled by white, Anglo-Saxon, Protestant males of rural origins since the inception of public education (Biklen & Brannigan. 1980. 131).

This study had several foci. One was on the self-perceptions of nine sucessful female high school principals. Self-perception is an important variable in the determination of leader behavior. The self-perceptions of leaders contain what they know about their leadership styles, and include what they divulge in public, as well as those ideas about themselves which they keep private. The self-perception is a set of behavioral guides that controls behavior; it guides a person's personality and actions (Wicklund. 1982).

Another focus for this study was on the perceptions of others about the profile of a successful female high school principal. This included a paper-and-pencil survey on the perceived leadership style(s) of each principal.

A third focus looked at the Leadership Behavior Development Questionnaire (LBDQ) that was validated with male leaders as subjects. This inventory was administered to the nine female principals used in this study for comparisons and contrasts.

A final focus was centered around Ned Herrmann's Brain Dominance Survey (1982) so that an exploration could be made into the cognitive styles of these nine principals. Are they "right-brained", "left-brained" or "whole-brained"?

This research was not conducted to see if women fit into the category of being better leaders than men. Evidence to support such a statement could be difficult to obtain. The research was done because: 1.) there is an under representation of females in the role of high school principalships around the country; 2.) women can be effective on the high school level; and 3.) if we can find something to help in the training of educational administrators from a profile of a successful female high school principal, why not use it? There have been many studies of male educational leaders. Can a look at successful female educational leaders be of value also?

Statement of the Problem

Rationale:

There is much available literature on leadership styles. Some researchers purport that there is no difference in leadership styles between male and female leaders (Hemphill, Griffiths and Frederiksen. 1962; Frasher and Frasher. 1979; and Fishel and Pottker. 1977). The "no-difference" literature looks at the way men manage and then asks, "Do women do these things too?" For the most part, women do what men do in leadership situations. They do not necessarily manage in the same way or for the same reasons.

Many available questionnaires have been used in research to ascertain leadership styles. Most have been validated using all male subjects. The <u>Leadership Behavior Description Questionnaire</u> (<u>LBDQ</u>) was seen as an important research instrument for students of school leadership, (Hemphill and Coons. 1957. 6). In designing this questionnaire, the researchers watched what head men did and characterized leadership behavior from their observations (Shakeshaft. 1987. 154). Haplin, in the Ohio State leadership Studies, used samples consisting of Air Force bomber commanders and crew members, commissioned officers, noncommissioned personnel and civilian administrators in the Department of Navy, foremen in a manufacturing plant, executives in regional cooperative associations, college administrators, school superintendents and principals. Fiedler (1967. 11) viewed leadership as an interpersonal relation in which power and influence were unevenly distributed so that one person was able to direct and control the actions and behaviors of others to a greater extent than they directed and controlled his. Fiedler used subjects from the male-dominated corporate world of big business, the military, (B-29 bomber pilots), and industry (Shakeshaft. 1987. 155).

The research of Getzels and Guba was funded by the Air Force and their first samples were military personnel at Air University, Maxwell Air Force Base (Shakeshaft. 1987. 159).

Maslow's theory was also problematic for women. His fuller self-actualized female was one who had made it in a man's world, (Shakeshaft. 1987. 156).

Studies by Hemphill, Griffiths and Frederiksen (1962) show that as a class men are not overwhelmingly superior to women as elementary school principals. Their studies show evidence that women leaders value working with teachers and outsiders; that women leaders are concerned with objectives of teaching, pupil participation, and the evaluation of learning; that they have more knowledge than men of teaching methods and techniques; and that they get more positive reactions from teachers and superiors than do men. Frasher and Frasher (1979) and Fishel and Pottker (1979) report either no difference in leadership style and behavior between men and women, or differences favoring women. Neuse (1978) found that females entered administration to be of service to people and to use their professional skills for creative management. Because women display greater respect for dignity of teachers in their schools than do men, (Wiles and Grobman, 1955), it may be easier for them to manage conflict. Charters and Jovick (1981) found that female principals were regarded as more influential than male principals with respect to affairs of their schools. Researchers should not expect women to adhere to male behavior characteristics. Women come from a different background and they visualize and conceptualize things differently from their male counterparts.

Perhaps leadership has no gender! Effectiveness depends on the characteristics of individual leaders and the structure of organizational settings. Effective leadership in school settings requires an extensive repertoire of interpersonal and analytical skills.

The urge for reform in American education is great. The education leader can make a difference—in staff morale, coherence of instruction and achievement of students. As leadership comes properly to be seen as a process of leaders engaging and mobilizing the human needs of followers, women must be more readily recognized as leaders and men must be willing to adjust and change their own leadership styles (Burns. 1978).

Problem:

The problem for this study was that there was little research available on the successful female high school principal. This study initiated a combination of cognitive and preference patterns and leadership styles research in education administration at an exploratory level. Results of this study should add to the literature of educational leaders from the perspective of the female education leader and also generate hypotheses for future research.

The Purpose

The purpose of the study was to explore the relationship between the cognitive styles and the leadership styles of female secondary school principals in schools of excellence, grades seven through twelve, in the Southern region of the United States (schools in states of the Southern Association of Colleges and Schools—SACS—area of accreditation).

Significance of the Research

There are several reasons for this research:

1. to shed additional light on the leadership qualities that women bring to the field of educational administration

2. to examine leadership styles of female principals in high schools of excellence throughout the Southern region of the United States

3. to explore relationships between female principals' leadership styles and their compatibility to the standards of high schools of excellence.

Results of this study provide implications for the recruitment and selection process of education administrators. The study also provides information on cognitive styles and leadership behaviors of education administrators that could shed light on barriers to educational change and innovation.

Research in education has been inundated with studies of male leadership styles and also comparing male and female leadership styles (Maccoby & Jacklin. 1974; Gross & Trask.

1976; Leonard. 1981; Ironside. 1983; Loden. 1985; and Shakeshaft. 1987). What has not been thoroughly investigated is women as leaders—not women leaders compared to males—but women as education leaders. Such research might consider the process of mental activities that women undertake and their motivation for doing what they do. Another area of this research involves the career paths of women in administration. The extant research is modeled upon male-generated assumptions of career paths.

Women do not have to be compared to men. Data help us understand that women have the ability to "stand on their own" in the realms of education administration. According to Griffiths, "the quickest, easiest, and surest way to improve the quality of education administration is to appoint more women" (1988. 13).

Herrmann, in his studies of the human brain, has found that the most successful Chief Executive Officers (CEOs) in the business world use a holistic, whole-brain approach to decision-making and problem solving. He also found a higher level of achievement and greater tendency for risk taking among leaders who balanced logic with intuition.

Norris (1984) found that school superintendents ranked especially low in intuition, (right brain dominance), and especially high in logical/analytical (left brain dominance), according to Herrmann's Brain Dominance Survey. Her data further indicated that females exhibit a greater tendency toward right brain or holistic thought patterns and conceptualization than did the males surveyed.

Hypotheses and Questions to Guide the Study

Several hypotheses and research questions will be considered in this study. The hypotheses were generated from the review of the literature and from prior research on brain dominance and leadership styles. The hypotheses and related questions include:

H_1: Leadership styles, as measured by the LEAD Self, for these female secondary school principals will be flexible—these females will be able to modify their behaviors to fit any of the four basic styles used in the books by Hersey and Blanchard (1982): delegating, participating, selling, and telling.

 Questions:
1. What leadership characteristics do successful female secondary principals possess?
2. How do the leadership styles of these principals differ?
3. How are the styles alike?
4. Is there one prevalent style that is used by these female principals?

H_2: These women will have clear educational goals and communication and decision making styles that stress cooperation. They will monitor, evaluate student progress, and promote achievement and learning as well as display high morale and commitment.

 Questions:
5. What are the personal and professional characteristics, job-related tasks, and expectations of these female principals?
6. What similarities and differences exist in the characteristics, tasks, and expectations of these principals?

H_3: Cognitive styles of the principals, as measured by Herrmann's Brain Dominance Survey, will closely align with those Chief Executive Officers (CEOs) previously cited and be more holistic or right-brain dominant than typical male counterparts in the principalship.

 Questions:
7. What mental processes do these principals use as revealed by the Brain Dominance Survey by Herrmann?
8. How do the individual mental processes help each principal as a leader?

H_4: These female principals will have varied career paths leading to their selection as principals—not simply from teacher to principal.

 Question:
9. How are the career paths of these successful female principals of schools of excellence similar and different?

H_5: There is no difference between the mean of this study's subjects of female principals and the mean of the norming test group of male leaders on each sub scale of the Leader Behavior Description Questionnaire.

Question:

10. Does the <u>LBDQ</u>, with its reliability/validity and norming on all male subjects, seem to work equally well with these nine female principals as with male subjects?

11. What is the correlation between raw scores on the <u>Brain Dominance Survey</u> and raw scores on the <u>Leader Behavior Description Questionnaire</u> ?

<u>Definitions not cited in the text</u>

<u>Expectations</u> : the perceptions of appropriate behavior for one's own role or position or one's perceptions of the roles of others within the organization (Hersey & Blanchard. 1982. 126-127).

<u>Herrmann Brain Dominance Survey</u> : a paper-and-pencil questionnaire that provides the basis of a personal profile containing that individual's congitive preferences across the total spectrum of mental options that comprise the four parts of the brain: upper left cerebral mode—logical, analytical, quantitative, fact based; lower left limbic mode—planned, organized, detailed, sequential; upper right cerebral mode—holistic, intuitive, synthesizing, integrating; lower right limbic mode—emotional, interpersonal, feeling based, kinesthetic (Herrmann. 1988).

<u>Interview</u>: data-gathering process which may be conceptualized as a two-person process through which usable information relative to the respondent's knowledge and/or feelings about a topic is obtained (Udinsky, et al. 1981).

<u>LBDQ</u>: a paper-and-pencil test used in obtaining descriptions of a supervisor by the group members whom he supervises or by himself. It can be used to describe the behavior of the leader, (Stogdill. 1963).

<u>LEAD Instrumentation</u> : an instrument designed by Hersey & Blanchard to measure three aspects of leader behavior: 1) Style, 2) Style range, and 3) Style adaptability (Hersey & Blanchard. 1982. 233).

<u>LEAD-Other</u>; an instrument which reflects the perceptions of a leader's subordinates, superiors, or peers (Hersey & Blanchard. 233).

<u>LEAD-Self</u>: an instrument which measures self-perceptions of how an individual behaves as a leader (Hersey & Blanchard. 233).

<u>Leadership style</u> : the consistent behavior patterns that leaders use when they are working with and through other people as perceived by those people (Hersey & Blanchard. 1982. 126).

<u>Questionnaire</u> : a survey form of planned collection of data for the purpose of description or prediction as a guide to action or for the purpose of analyzing the relationships between certain variables (Oppenheim. 1966).

<u>Schools of Excellence:</u> those schools identified and recognized nationally by the Secondary School Recognition Program as being unusually successful public secondary schools and through publicity and other means, other schools are encouraged to emulate them (Corcoran and Wilson. 1986. ix).

<u>Style adaptability:</u> is the degree to which leaders are able to vary their styles appropriately to the demands of a given situation (Hersey & Blanchard. 1982. 233).

<u>Style range:</u> is the extent to which that person is able to vary his or her leadership style (Hersey & Blanchard. 1982. 233).

Design of the Study

This study is a descriptive comparison of nine female secondary school principals in schools of excellence. There have been 19 female secondary principals in schools of excellence in the Southern Association of Colleges and Schools (SACS) since the beginning of the recognition program in 1982. Of those 19, eight have taken other jobs and have been replaced by male principals. Of the remaining 11, two chose not to participate in the study. The study is a quasi-experimental design combining ex post facto, descriptive data with case studies. The "x" for the ex post facto study was the individual secondary school principal and the "o" dealt with individual leadership style. Many of the pre-x facts were obtained in post-x questionnaires, surveys and interviews. Other data for the study were obtained from a subjective self evaluation, a subjective other evaluation, the administering of <u>Herrmann's Brain Dominance Survey,</u> and Hemphill and Coons' <u>LBDQ</u> to these principals.

Data in the study combine into composite profiles of the nine female education leaders to show some commonalities that can be used in preparing future educational leaders. Research has shown that women who make it as secondary school principals are very exceptional people (Shakeshaft. 1987).

This study is not an attempt to compare women to men in education administration.

Leadership effectiveness can not depend on a single set of personal characteristics with which an individual was born or which he/she acquired at an early age. Success in leadership can not be limited to a small elite group, but rather something that can be attained by many.

Analysis Procedure

The questionnaire and the interview data were organized into charts and graphs to highlight commonalities and dissimilarities. The Herrmann Brain Dominance Instrument data were used to classify subjects on the basis of their dominance scores in each brain quadrant. This resulted in each subject receiving a dominance code of four digits and a raw score measurement of both left-brain and right-brain dominance. It also clustered scores of each person for analysis. Brain dominance codes place the subjects into one of two groupings: a whole-brained/right-brained cluster, or a left-brained/limbic cluster. A LEAD Matrix was also scored for each subject. This gave an in-depth analysis of style range, flexibility, and adaptability of each subject from the individual perspective and from the perspective of others. For the LBDQ, a scoring key indicated the items relevant to the twelve subscales: initiating structure, representation, demand reconciliation, tolerance of uncertainty, persuasiveness, tolerance of freedom, role assumption, production emphasis, predictive accuracy, integration, superior orientation and consideration. Means, standard deviations and quartile scores were used on both dimensions. Statistical procedures that were used to investigate relationships and differences among dominance styles (as measured by the Brain Dominance Instrument), leadership behavior (as measured by the LBDQ) and leadership styles (as measured by the LEAD-Self and LEAD-Other) include: Chi Square analyses, scattergrams, Pearson r correlations, Spearman rho, z scores and T scores.

Limitations of the Study

This study has several major weaknesses or limitations that need to be addressed. They include the following:

1. All participants in this study are female administrators in secondary schools. Generalizations of the findings are limited to those administrators in similar settings.

2. The perceived management styles discussed in this study are limited to those styles put forth by Hersey and Blanchard (1982) and Ned Herrmann (1988) and identified through the LEAD-Self and LEAD-Other or the Brain Dominance Instrument.

3. All results of this study are limited by the reliability and validity of the instruments used. The LEAD-Self and LEAD-Other have a low reliability and validity: .11 to .52.

4. In ex post facto research, there is an inability to manipulate independent variables (Kerlinger 1973. 390).

5. In ex post facto research there is a lack of control leading to the risk of improper interpretation (Kerlinger. 390).

6. In ex post facto research there is a lack of power to randomize (Kerlinger. 390).

7. By using an open-ended interview there will be little flexibility in relating the interview to particular individuals and circumstances.

Organization of the Study

This study is organized in the following manner:

I. Introduction to the study

Introduction

Statement of the Problem

The Purpose

IV. Presentation and Data Analysis

    Introduction

    Hypotheses and Research Questions

    Summary

V. Summary of Findings, Discussion, Conclusions and Recommendations for

    Future Studies

    Introduction

    Summary of Findings from the Review of Literature

    Summary of Findings from Brain Dominance and Leadership Style Research

    Discussion

    Conclusions

    Recommendations for Further Study

References

Appendixes

Summary

Chapter One has given a broad introduction to the study. Included in this section was the problem statement, purpose, significance of the study, definitions, limitations and delimitations, hypothesis and questions, and the organization of the study. This chapter will close with a statement on instrument validation.

Greene (1982) analyzed responses from 264 managers to standardize the LEAD-Self. He found the concurrent validity coefficients of the 12 items to range from .11 to .52. In another study, a correlation of .67 was found between adaptability scores of the managers and the independent ratings of their supervisors (Greene).

"The Herrmann Brain Dominance Instrument was developed over a five-year period by Ned Herrmann, former Director of Management Training Programs for General Electric Corporation" (Norris. 1984. 58). Validation studies conducted by researchers at WICAT, Inc. (Orem, Utah), the University of Texas at Arlington, and Brigham Young University have established the Herrmann Brain Dominance Instrument as an accurate and reliable survey instrument. On-going research, refinement of the instrument, and growing data base continue to validate and confirm its accuracy and applications, (Herrmann. 1988).

The LBDQ has no norms for women. The instrument was designed to be used as a research device. The mean and standard deviations for serveral highly selected samples will be shown later in the study.

Reliability of the subscales has been determined by a modified Kuder-Richardson formula. Each item was correlated with the remainder of the items in its subscale rather than with the subscale score including the item.

CHAPTER II

REVIEW OF SELECTED AND RELATED LITERATURE

LEADERSHIP DEFINED

Decades of academic analysis have given more than 350 definitions of leadership. Many empirical investigations of leaders have been conducted in the last 75 years but no clear and unequivocal understanding exists as to what distinguishes leaders from nonleaders, and more importantly, what distinguishes effective leaders from ineffective leaders.

Multiple interpretations of leadership exist, most of which do not agree with each other. Definitions reflect fads, fashions, political tides and academic trends.

One concept of leadership is modeled on the success of Lee Iacocca. According to him, power is "the basic energy needed to initiate and sustain action" or, to put it another way, the capacity to translate intention into reality and sustain it. Leadership is the wise use of this power, (Burns. 1978. ch. 3 and 4).

Leading is influencing and guiding in direction, course, action, and opinion, (Bennis and Nanus. 1985. 21). Leadership seems to be the marshaling of skills possesses by a majority but used by a minority. It is something that can be learned by anyone, taught to everyone, denied to no one, (Bennis and Nanus. 1985. 27). A leader has the capacity to influence and organize meaning for the members of an organization. Being a leader is using one's self creatively.

Humanistic and professional are terms which convey the highest possible praise to an educational administrator. These terms are appropriate for organizations whose primary purpose is to service the educational needs of children and young people, (Heller. 1982. 46).

The educational administrator's primary loyalty is to the employing organization with his/her major responsibility being to the students. The leader is expected to be self-controlled and independent; capable of making decisions based on the principles that professional training has imbued, (Hoy and Miskel. 1978).

Supervising professional educators requires a non-authoritarian leadership style—an egalitarian manner; the same that previous studies have indicated women possess. However, women have been concentrated at the lower levels of the organization with the administrative ranks being reserved largely for males. Shakeshaft reiterates that for the year 1981 alone eight out of ten elementary teachers and nearly half of all high school teachers were women. Yet, in that same year only 1/5 of all elementary school principals and 1/14 of all high school principals were women.

The valuing of the so-called feminine leadership qualities—sensitivity, democracy, and humanity—exists in the education setting without regard to gender. Women and men alike are praised and admired by co-workers for demonstrating these attributes. The climate and ideological foundations of the educational organizational override sex-role stereotypes in this regard, (Heller. 1982. 62).

LEADERSHIP BEHAVIORS

Increasing numbers of women are moving into leadership positions, enjoying their new authority and influence, proving their ability to lead, and eying even high executive roles. Men, at the same time, are in a state of transition, re-evaluating the role of their work lives, and learning new attitudes and behavior toward their female colleagues.

There has been an assumption that the most appropriate model to emulate for leadership was male. If this were true women in leadership roles had but two choices: mold one's behavior and style more like men's or reject the "traditional" model and replace it

with a feminine one. There is still a third possibility that researchers are now studying: a synthesis of the best of both models.

Early leadership literature expounded to potential women leaders the virtues of behaving like men. Women should be more strategic, assertive, and competitive while showing less emotions and sensitivity. To really "achieve in a man's world", women should wear a three-piece navy skirt suit, play golf, and possess a thorough knowledge of professional sports, (Loden. 1985. 10).

Loden (1985) goes further by citing Charles Elliot, past president of Harvard, telling us that if women had not been cheaper than men they would not have replaced nine out of every ten men in American public schools. In other words, women assumed jobs men did not want.

A Gallup survey in the New York Times (1984) revealed that 68% of college educated women believed that their sex did not have equal job opportunities and 71% of those women surveyed believed that men had a better chance to become executives, (Loden. 1985. 18).

The woman's leadership behavior has been one of adaptation. Sociologically speaking, women have invaded an alien culture to enter management ranks that have been entirely shaped by men.

Research since 1972 suggests that successful leaders possess characteristics, attitudes, and temperaments commonly ascribed to men—task oriented and authoritative. According to Loden (1985), this masculine leadership model consists of being competitive, winning, rational, in control, strategic, unemotional and analytical. Women trying to be successful, attempted to emulate their male counterparts.

The 1970's brought changes in the workplace. Prices of American-made goods went up but quality went down. At the same time workmanship and value of many foreign-made products were improving. The United States began losing its advantage to foreign

competitors. Morale dropped, productivity declined, and the country seemed to be losing its competitive edge. Goods were being made where they could be bought cheapest, regardless of national boundaries and usually this meant Third World countries.

In juxtaposition to these happenings was a work force that was the product of post-Vietnam, post Watergate, and the mass-media era. These people thought that institutions and organizations of all types had lost authority. They retaliated for lack of incentives many times by holding back commitments and sometimes labor. The times were ripe for a change in leadership style.

Burns (1978) tells us that the leader must tap the needs, raise aspirations, and help shape values—and hence mobilize the potential of followers. Instead of giving orders or directly controlling activities, the leader must set directions and let followers carry them out in their own way.

The best leadership style then should be based on synthesizing, intuitive, qualitative thinking and rely on adaptive relationships for support. Leaders using this style look for integrated solutions to systemic problems. Loden (1985) is convinced that this comes more naturally to women than to most men.

Women's leadership style relies on emotional as well as rational data. It responds to situations on both thinking and feeling levels and is more apt to be concerned with maintaining close personal relationships with others.

According to Loden (1985) the feminine leadership model consists of being cooperative, a team builder, intiative and rational, empathic, and collaborative.

Not only are men and women differing in their leadership styles, they also are differing in their career paths. Women usually do not decide until late in life that they want a management position. This is due to prior influences and current circumstances, (Kanter. 1977). He also finds that an individual's organizational behavior is a function of three structural elements in the organization:

> Opportunity—being noticed by others
> Power—ability to gather resources and get things done
> Relative representation—degree one individual is represented by others or
>   self

According to Maienza, female career status is a product of:

> Parental background
> Socialization in the family and community
> Academic performance
> Influence of significant others
> Family responsibility
> Sex-role conflict (1986)

Maienza (1986) further purports that access to top management positions, (especially in public education), is influenced by the interaction of individual behavior and organizational structure.

Effective leaders must have power. It comes in many forms such as legitimate, personal and expert. Women have traditionally used expert power which is to say that they are technically oriented. "For the most part, women have not added the other kinds of power to their repertoire...they are usually over prepared therefore are more comfortable with expert power", (Jacobson. 1985. 46).

This presents a conflict for many sub-ordinates who say that they do not want to work for a woman. What they are really saying is that they do not want to work for a boss with no perceived power. Women must learn the kinds of bargaining and political skills needed to gain power.

Role theory gained recognition as one of the most productive viewpoints from which to research leadership phenomena in the 1960's. In this theory there is an interaction between the leader and various role "senders" (sub-ordinates, peers, and superiors), who work with the leader and communicate their expectations of how he/she should behave, (Thomas and Biddle. 1966. and Katz and Kahn. 1966). Role conflict, (Gross, Mason, and McEachern. 1965), comes when the leader and his/her superior have a differing definition about the role of the leader.

Women are especially vunerable to role conflict because:

1. Co-workers have conflicting expectations of how a woman should behave and how a leader should behave, (Katz and Kahn. 1966)
2. Attitudes held by the leader herself—she has one set of expectations of herself as a leader and another set of expectations for herself as a woman, (O'Leary. 1974)

No matter how a leader acquires his/her position, to be successful, there must be role legitimation, (Stogdill. 1974. 323). The power and authority of the leadership position must be recognized by the followers, peers and superiors. The extent to which a leader fulfills these expectations determines the degree the various groups will legitimize the leadership role, (Heller. 1982. 7).

Heller assumes that leadership does not come automatically with the job title. The person in the role determines how it is enacted. In a study of stereotypes of men and women as leaders she found that men were generally too focused on procedures, remote, inacessible, authoritarian, agressive and sexist while women were too focused on people, emotionally demonstrative, and not very assertive. Looking on the positive side she found men to be more relaxed and humorous. In general men think categorically, work independently and separate work from their social role. Women on the other hand generally were more human, open, friendly, egalitarian, efficient, and organized than their male counterparts (Heller. 1982). Women are perceived as relatively less objective and less logical than men; men are perceived as lacking interpersonal sensitivity, warmth and expressiveness in comparison to women, (Broverman, et al. 1972. 75).

Maccoby and Jacklin (1974) supported a "no-difference" theory when they found no evidence to support personality stereotypes of men being competitive and women being nurturing and dependent. Kanter (1977) also supported this "no-difference" theory. She concluded that power or status wiped out gender differences in behavior. Additional studies show no significant differences in overall administrative effectiveness nor in overall

leadership styles. Female leaders do not have a higher need for fostering interpersonal relationships than do males. At the same time, males are not more task oriented or authoritive than females, (Leonard. 1981; Ironside. 1983). The best leadership style then seems to be a blend of traditionally recognized masculine and feminine behaviors, (Sargent. 1981; Garen. 1982).

CHARACTERISTICS OF EDUCATIONAL LEADERS

Heller (1982) noted that humanistic and professional were terms which conveyed the highest possible praise to an educational administrator. "These terms are appropriate for organizations whose primary purpose is to serve the educational needs of children and young people", (Heller. 1982. 46). Both are stereotypically feminine leadership qualities.

Supervising professional educators requires a non-authoritarian leadership style—an egalitarian manner. Women involve teachers, superiors, and outsiders in their work, while men tend to make final decisions and take action without involving others (Hemphill, Griffiths and Frederiksen. 1962). Berman (1982) found that women used more cooperative planning strategies in meetings than did men. Fairholm and Fairholm (1984) found that women principals were team builders. Yet a pyramid-shaped distribution of women employees in education exists. Women again have been concentrated at the lower levels of the organization with the administrative ranks being reserved largely for males.

Women leaders have demonstrated they can relate well to their co-workers, they maintain a high standard of conduct in setting the pace for work that the personnel of the institution must accomplish, that their interests in scholarly academic matters are equal, if not better than their male counterparts and that they are likely to place high priorities on the accomplishment and interplay that are especially important to the progress and excellence of schools and school systems, (Heller. 1982. 219).

Gross and Trask (1976) in a study of sex factor and the management of schools found that:

1. Women considered and made up their minds to become teachers much earlier than men
2. Men gave serious thought to becoming a principal at a much earlier stage of their career than women
3. Teaching was the first vocational choice of the vast majority of women but only for half the men
4. Over twice the proportion of men as women were under the age of 36 when they became principals
5. Over four times the number of men as women became principals within ten years of becoming teachers
6. Mean teaching for men was 4.6 years—for women 14.7 years
7. Women principals had lower aspirations for professional advancement and tended to worry less about their work than men (p. 218)

Women give a greater emphasis on the individual differences among pupils, on the social and emotional development of their pupils, on the "deviant" pupils, and on the technical skills of teachers than men. "They exert greater control over their teachers' professional activities than men and also associate more frequently with members of the faculty outside school" (Gross and Trask. 1976. 219). To coincide with these facts professional perform- ance of teachers and pupils learning are found to be higher in schools administered by women, (219).

Shakeshaft, (1986. 117-122), found studies showing that women conducted more unscheduled meetings, monitored less, took fewer trips away from the building and observed teachers more than men. When comparing male and female secondary principals she found women have:

1. A higher percentage of contacts initiated by others
2. Shorter desk work sessions during the school day and more time spent during after school hours
3. A higher percentage of total contacts with superiors
4. Longer average duration for scheduled meetings, phone calls and un- scheduled meetings
5. Cooperative planning more often taking place during scheduled meet- ings (117-122)

Women view the job of principal as that of a master teacher or educational leader while men view it from a managerial-industrial perspective. Women also give more attention to the individual differences among students including delinquency and the social and emotional development of each child.

Women feel that they must succeed, not just for themselves, but for the sake of their gender. Women use expressive language that encourages community building, are more polite, cheerful, respectful, and show appreciation (Shakeshaft. 1986. 120).

A synthesis of studies on effective leadership behavior found six themes emerging as behaviors consistently associated with well managed schools in which students' achievement was high. Principals in instructionally effective schools:

1. Emphasize achievement and convey to teachers their commitment to fostering academic success
2. Set instructional strategies and accept responsibility for facilitating their accomplishment
3. Provide an orderly atmosphere and insure that the school's climate is conducive to learning
4. Frequently evaluate students progress in light of performance expectations
5. Coordinate instructional programs consistent with the overall goals of the program and the school
6. Support teachers with regard to staff development (Sweeney. 1982. 346-352)

These six themes are consistent with the characteristics thus far purported for female leaders. "Analyzing female approaches to administration that can be used by all administrators might help to isolate particular strategies and behaviors that promote effective schools" (Shakeshaft. 1986. 122).

CREATIVE LEADERSHIP

Mythology has it that creativity is the exclusive domain of artists, scientists, and inventors—that it is something not avaliable to ordinary people going about the business of daily life. Partly as a result, ordinary people often hold

the creative person in awe, finding little gradation in genius. It's either the Sistine Chapel ceiling or nothing. It's as if we must slay the "dragon" that guards the gate to personal creativity before we can enter our own creative realm. For many of us, the "dragon" is of our own making. It is an ogre we have blown up in our minds to shield us from the "terror" of our own creativity. It doesn't have to be this way at all.
        Ned Herrmann. 1986. 2

Creative and inventive men and women can do without much equipment that may be required by men and women with less talent. Humankind is creative by nature— Americans are particularly creative. Creativity is essential for individual growth; it is the basis for progress in all human development. Creative expression is an excellent means of developing a well-rounded, well-adjusted individual. Effective leadership is no less noble or base than the creative use of one's self. It is exploring a new space, posing and solving a problem, or designing or discovering something new (Brim. 1966; and Elliot. 1961).

Loden's research (1985) saw male leaders controlling rather than organizing. The new leader is one who commits people to action, who converts followers into leaders, and who may convert leaders into agents of change.

Vision is the commodity of creative leaders and power is their currency. Creative leadership gives vision and then translates that vision into reality. Creative leading is influencing, guiding in direction, course, action and opinion. Current demands for education improvement call "for leaders who can conceptualize visions of the future and direct the organization toward new pathways of change" (Norris. 1986. 11).

Before one can be a creative administrator, one must set some standard of what creativity is. Ghiselin, (in Taylor. 1964. 4), states that creativity is "the measure of a creative product by the extent to which it restructures our universe of understanding". Lachlen, (in Taylor. 1964. 6), takes a different approach and says, "the extent of the area of science that the contribution underlies: The more creative the contribution the wider its effects". Stein, (in Taylor. 1964. 6), contends that creativity is a "novel work that is

accepted as tenable or useful or satisfying by a group at some point in time". Perhaps a broader viewpoint of creativity and its definition would be that of Brim, (1966). Brim states that "the main concern is not with the selecting and nurturing of the gifted few, but with the attempt to raise the general level of creative thinking in all individuals" (p. 34). Brim sees creativity as a quality that should be stressed among the masses, not just the "gifted".

Elliot (1961) tells the administrator that the "initial step in creativity is discovery". Next, man's curiosity leads him "to experiment and thus accumulate knowledge. He applies imagination to knowledge, tests with reason, and then creation comes into being" (p. 133). However simple, creativity is essential for human development.

Ritson and Smith (1975) listed the following basic principles of creativity:

1. All children are born with creative talent.

2. There is a relationship between creativity and intelligence.

3. Creativity is a form of giftedness that is not measured by current intelligence tests.

4. All areas of the curriculum can be used to develop creativity.

5. Creativity is a process and a product.
   a. Preparation
   b. Incubation
   c. Insight
   d. Inspiration
   e. Elaboration and Evaluation

6. All creative processes cannot be developed at one time.

7. Creativity cannot be taught.

8. Knowledge, skills, and facts are required in order for a person to be creative.

9. Theories of creative development lead us to believe that the unconscious plays a role in creative development.

10. Excessive conformity and rigidity are true enemies of creativity (p. 89).

An educational leader cannot be taught creativity. Creativity is a quality deeply imbedded in the human personality, it needs to be developed by reinforcement when it does appear (Ritson and Smith. 1975). When given the right opportunities, (Herrmann. 1986)

people can slay their own "dragons" that block their creativity. He views creativity as being on a continuum from a little to a whole lot.

> How much of a person's creativity is accessed, depends a great deal on the individual's mental preferences and attitudes. Two people can be relatively equal in potential creative capability, yet one may be already functioning in creative ways, while the other is too timid to venture forth or does not know how to begin (Herrmann. 1986. 2).

The main function of the creative educational leader is to maintain a school where the physical, psychological, social-emotional and intellectual conditions allow creativity to rise freely to the surface where it can be reached and developed. To maintain this school the administrator must have a creative staff of subordinates. Creativity includes original-ity, adaptive flexibility, spontaneous flexibility, associational fluency, elaboration, and evaluation factors. In broader terms creative people have components of memory, cognition, and evaluation, more of convergent production, and even greater divergent production.

The creative person usually is curious, prolific in his/her ideas, intellectually persistent, tolerant of ambiguity and shows initiative in his/her area of work. Complex order is a preference among the creatively inclined. "He has an aesthetic and to some extent religious orientation; he resists premature closure and crystallization of concepts, though he has a strong need for ultimate closure" (Taylor. 1964. 8). The creative usually possess high energy accompanied by vast work output through disciplined work habits (Taylor). Predictors of the creative include a willingness to take great and long-term risks for greater gain (Taylor). They also have the tendency to collect an overly generous amount of raw material for the problem solving at hand along with a willingness to discard some of the material in the final product. They have an intense aesthetic and moral commitment to

their work, but are nonetheless most capable of revolting against past knowledge of man (Taylor).

"Creative persons are more autonomous than others, more self-sufficient, more independent in judgement, more open to the irrational in themselves, more stable, more dominant and self-assertive, more radical, and more introverted but bold" (Taylor. 1964. 9).

The home environment may enhance or inhibit the creative talent. The greatest inhibitors to creativity in early childhood are attempts to eliminate fantasy and holding back operations that prevent children from learning more than they are ready to learn. Other inhibiting factors include the culture of the United States. Our culture is one of the most success-oriented cultures in the world. Our civilization teaches and programs people only for success, not failure. Failure is considered very dangerous if not shameful and thus the culture ill-prepares people for frustration. The entire nature of creativity requires a sensitivity and also independence (Taylor. 1964; Brim. 1966; and Elliot. 1961).

Creativity is an individual matter. The creative administrator or teacher experiments and uses the things that work for him/her. This is not to say that he/she experiments in a haphazard way—we cannot be effective in the public schools without evaluating our objectives. We must determine whether we assure our students an opportunity for growth and development (Taylor. 1964: Brim. 1966).

In summation, to encourage creativity the school experience must contribute to the development of the security of each child, teacher, and administrator. The creative administrator will be a guide to help each student and teacher develop to his/her maxium capabilities. He/she will have a good rapport with teachers and students. He/she will generate the feeling of the importance for everyone to create. He/she must motivate teachers and students to think creatively.

LEADERSHIP STYLES

For this paper, leadership styles will be limited to those involving the <u>Leader Effective-ness & Adaptability Description</u> (LEAD) which include "Delegating", "Participating", "Selling", and "Telling" and also those involving the <u>Leader Behavior Description Ques-tionnaire</u> (LBDQ) which is built on the elements of "Consideration" and "Initiation of Structure". The <u>LEAD</u> was chosen because it was the only instrument available that used both male and female subjects for validation. The <u>LBDQ</u> has no norms for females. The means and standard deviations were determined using commissioned and noncommis-sioned officers in an army combat division, the administrative officers in a state highway patrol headquarters office, the executives in an aircraft engineering staff, ministers of various denominations of an Ohio community, leaders in community development activities throughout the state of Ohio, presidents of "successful" corporations, presidents of labor unions, presidents of colleges and universities, and United States Senators.

According to Hersey and Blanchard (1982), situational leadership as measured by the <u>LEAD</u> is based on the relationships among:

1. Task behavior—the amount of direction and guidance a leader gives

2. Relationship behavior—socioemotional support, i.e. the amount of two-way and multi-way communication, listening, facilitating, and suppor-tive behavior

3. Readiness level of followers to perform a specific task (readiness for one task cannot assume automatic generalization to another task or that readiness defines the person in all areas).

    a. ability to perform
    b. willingness to perform (p.160)

Their model is based on two important assumptions. First, leaders can correctly diagnose the situation and second, leaders can adapt their preferred style. Several primary factors influence leader effectiveness. They include: leader, leader's superordinate,

followers, key peers, organization climate, job demands, and decision time. These variables are interdependent and interactive (Hersey & Blanchard. 1988).

Four readiness levels correspond to the four leadership styles.

1. (R1) (LOW) unable and unwilling or insecure

2. (R2) (MODERATE) unable but willing or confident

3. (R3) (MODERATE) able but unwilling or insecure

4. (R4) (HIGH) able and willing or confident

1. S1: this leadership style has above average task behavior and below average relationship behavior (TELLING)

2. S2: this leadership style has above average task and relationship behavior (SELLING)

3. S3: this leadership style has below average task behavior and above average relationship behavior (PARTICIPATING)

4. S4: this leadership style has below average amounts of both task and relationship behavior (DELEGATING) (Hersey & Blanchard. 1988. 154)

The LBDQ was developed for use in obtaining descriptions of a supervisor. It can be used to describe the behavior of the leader in any type of group or organization. It grew out of work initiated by Hemphill (1949). It was further developed by the staff of the Ohio State Leadership Studies. The staff found in empirical research that a large number of hypothesized dimensions of leader behavior could be reduced to two strongly defined factors: Consideration and Initiation of Structure.

For the LBDQ Form XII which is used in this study, there are 12 subscales that are composed of either five or ten items. A subscale is defined by its component items, and represents a rather complex pattern of behaviors. The subscales include:

1. Representation—speaks and acts as the representative of the group (5 items)

2. Demand Reconciliation—reconciles conflicting demands and reduces disorder to system (5 items)

3. Tolerance of Uncertainty—is able to tolerate uncertainty and postponement without anxiety or upset (10 items)

4. Persuasiveness—uses persuasion and argument effectively; exhibits strong convictions (10 items)

5. Initiation of Structure—clearly defines own role, and lets followers know what is expected (10 items)

6. Tolerance of Freedom—allows followers scope for initiative, decision, and action (10 items)

7. Role Assumption—actively exercising the leadership role rather than surrendering leadership to others (10 items)

8. Consideration—regards the comfort, well being, status, and contributions of followers (10 items)

9. Production Emphasis—applies pressure for productive output (10 items)

10. Predictive Accuracy—exhibits foresight and ability to predict outcomes accurately (5 items)

11. Integration—maintains a closely knit organization; resolves inter-member conflicts (5 items)

12. Superior Orientation—maintains cordial relations with superiors; has influence with them and is striving for higher status (10 items) (Stogdill. 1957. Monograph No. 88).

BRAIN RESEARCH

Brain research has found that the brain is composed of four areas or quadrants. These quadrants are known as cerebral right, cerebral left, limbic right and limbic left according to Ned Herrmann. Even though each quadrant is specialized in its process, the quadrants work together to perform the functions of the brain.

Fox and Banks (1986) conducted a study of freshmen students using a paper and pencil instrument, the Herrmann Participant Survey, to determine an individual's preferred or dominant quadrant for learning and thinking. This study showed that males and females differed significantly in their preferred quadrants.

MALES

Cerebral Left
Mean 72.05
Range 118

Cerebral

Cerebral Right
Mean 72.11
Range 102

Left

Right

Limbic Left
Mean 81.00
Range 88

Limbic Right
Mean 65.78
Range 94

Limbic

FEMALES

Cerebral Left
Mean 50.33
Range 81

Cerebral

Cerebral Right
Mean 75.36
Range 112

Left

Right

Limbic Left
Mean 80.38
Range 85

Limbic Right
Mean 89.03
Range 148

Limbic
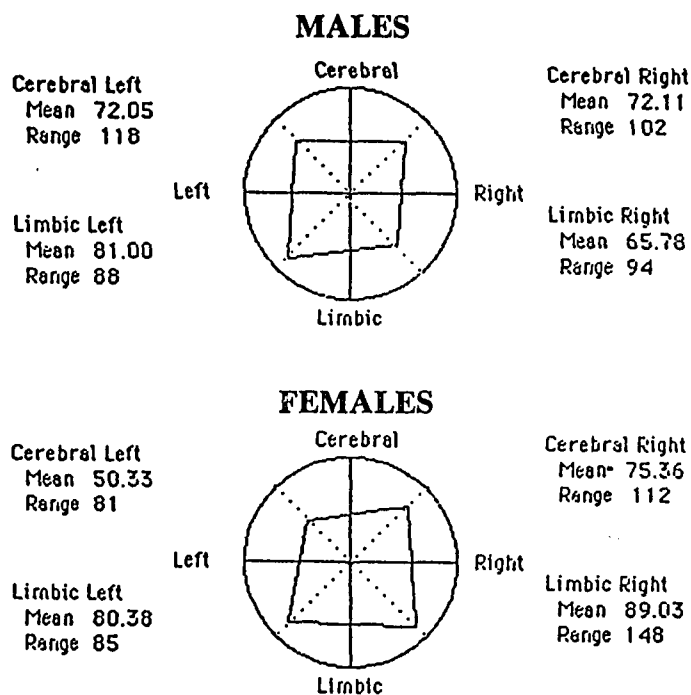
Figure 1: Composite Brain Dominance Profiles for Males and Females
Source: Herrmann, N. (1986). Brain Dominance Review. Vol. 3 No. 2.
Lake Lure, NC: Brain Dominance Institute. p. 8.

This research is very significant for the study of females. If females prefer right-brain to left-brain processes, they have to overcome educational obstacles of having most subjects taught using left-brain processes. Usually we see education stressing the development of quantitative, logical, technical, and precise thinking with a heavy reliance on memorization, structure, facts, details, and conformity (Herrmann. 1986).

According to Herrmann (1988 b), "contemporary understanding of human brain functions establishes that each brain is unique and that brains in general are specialized" (p. 1). There is an agreement on the concept of dominance: hand dominance, foot dominance, eye dominance, ear dominance, and brain dominance. Even though the body

is symmetrical in terms of organ duality, "experts agree that in the use of these dual organs there exists a general asymmetry", (Herrmann. 1988 b. 1). We use one to a greater degree than the other. "When combined, the concepts of specialization and asymmetry of dominance produce within each person a distribution of specialized preferences that affect general behavior. Specifically included is the unique individual's learning style" (Herrmann. 1988 b. 1).

Intelligence can no longer be seen as one dimensional, but rather as a series of intelligences or multiple intelligences. This leads us to see that individuals are not all alike in the cognition potentials and their intellectual styles and that education can be more properly carried out if it is tailored to the abilities and needs of the particular individuals involved, (Gardner. 1985). Students do not approach learning in the same way.

For at least the last 2,000 years man has been on a quest of knowledge—to expand his mental powers, rationality, or intelligence. Socrates, "Know thyself" or Aristotle's "All men by Nature desire to know" or Descartes's "I think: therefore I am" bring this fact into sharp focus. We must continue the quest—learning designs must factor in the uniqueness of the individual learner so that the subject matter is understood by all who are involved in the learning experience (Herrmann. 1988).

The human brain is comprised of many specialized functions (Figure 2). Many of these specialized modes are found in specific locations in the two hemispheres of the brain. None of these modes can be ignored when it comes to the unique person in a learning situation.
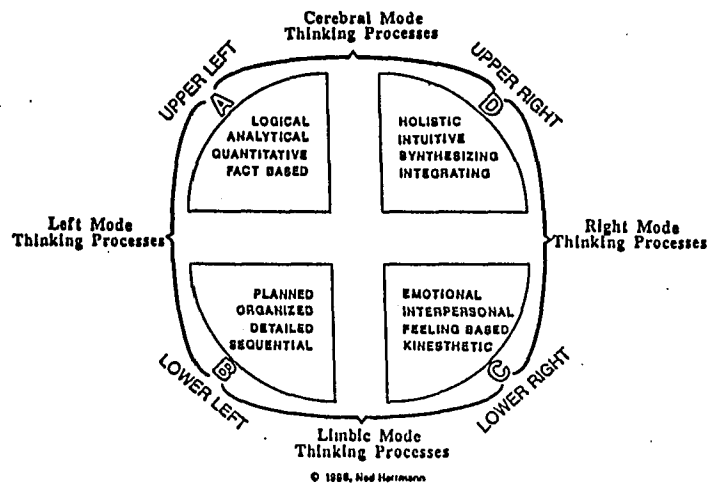
Figure 2: The Whole Brain Model
Source: Herrmann, N. (1988 b). The application of brain dominance technology to teaching and learning. Booklet within the Survey Form Kit. Lake Lure, NC: Herrmann Brain Institute. p. 2.

The model that has been developed divides the brain into separate quadrants, each different but equally important. Two quadrants, the cerebral right and cerebral left, represent the more cognitive, intellectual modes. The other two quadrants, limbic right and limbic left, represent the more visceral, emotional modes. The left mode, consisting of the cerebral left and limbic left, involve logical, analytic, quantitative and fact based thinking processes in the Upper Left quadrant and more planned, organized, detailed and sequential thinking processes in the Lower Left B quadrant (Herrmann. 1988 b. 3). The other two quadrants, cerebral right and limbic right, make up right-mode specialization. These include thought processes that are more synthesizing, integrating, holistic, and intuitive in the Upper Right quadrant, and interpersonal, emotional, kinesthetic and feeling thinking processes in the Lower Right quadrant, (Herrmann. 1988 b. 3).
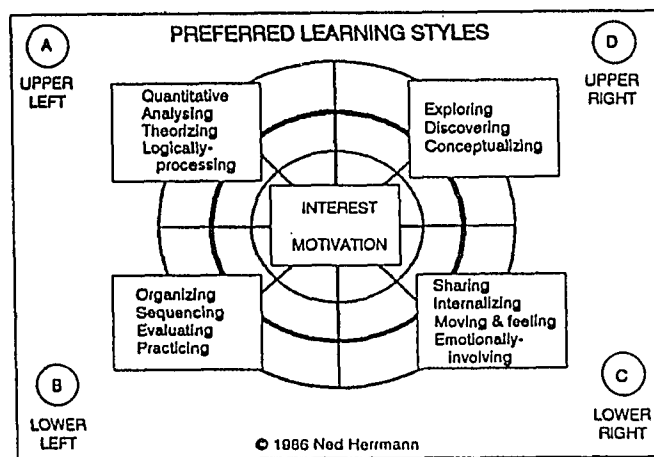
Figure 3: Preferred Learning Styles
Source: Herrmann, N. (1988 a). Herrmann participant survey form kit.
Measurement of brain dominance. Paper delivered to the International
Congress of Brain Dominances. Munich, Germany.

Herrmann developed the Herrmann Brain Dominance Instrument (Appendix B) to aid in measuring an individual's preferred mode of thinking. It is a paper and pencil questionnaire that is used as the basis of a personal profile. This profile represents the individual's thinking preferences across the four parts of the brain.

During his initial research, Herrmann found that there was a strong and direct correlation between a person's personal profile, their occupational profile, and their learning profile. The following model shows key descriptors that differentiate each quadrant from the others in terms of major teaching and learning modes, procedures, and processes. The arrows indicate the iterative nature of the process as it correlates with the physiology of the interconnected brain, (Herrmann. 1988 b. 7).

WHOLE BRAIN TEACHING & LEARNING

A

LOGICAL
RATIONAL
QUANTITATIVE

VISUAL
CONCEPTUAL
SIMULTANEOUS

D

FACT BASED

OPEN MINDED

VERBAL

STRUCTURED

UPPER LEFT   UPPER RIGHT

LOWER LEFT   LOWER RIGHT

EXPERIENTIAL

NON-VERBAL

CONTROLLED

FEELING

ORGANIZED
SEQUENTIAL
PROCEDURAL

EMOTIONAL
EXPRESSIVE
INTERPERSONAL

B   HERRMANN TEACHING & LEARNING MODEL   C

©1987,Ned Herrmann

Figure 4: Whole Brain Teaching and Learning
Source: Herrmann, N. (1988 b). The application of brain dominance
technology to teaching and learning. Booklet within the Survey Form
Kit. Lake Lure, NC: Herrmann Brain Institute. p. 7.

Herrmann (1988 a) concludes that "the organizing principle of the whole brain model contains four different selves, characterized by the following descriptive concepts: rational, safekeeping, feeling, and experimental" (p. 8). This led Herrmann to an array of other models including the "Whole Brain Creativity". According to him, "it is possible to teach people not only creative techniques and skills, but also to access their latent creative potential" (p. 8).
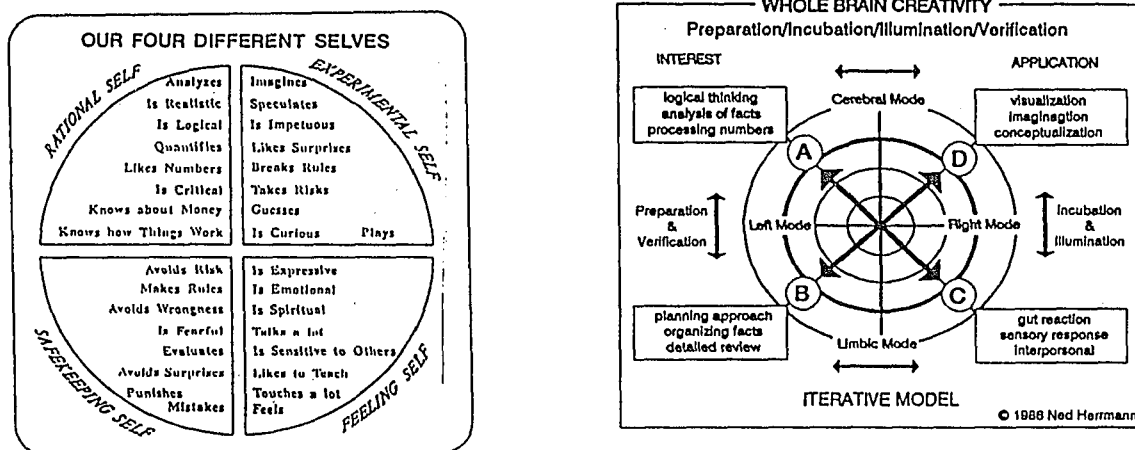
Figure 5: Our Four Different Selves and Whole Brain Creativity
Source: Herrmann, N. (1988 b). The application of brain dominance
technology to teaching and learning. Booklet within the Survey Form
kit. Lake Lure, NC: Herrmann Brain Institute. p. 8.

In the decision making model, Herrmann shows how sensitivity to one's profile "can

help in developing and using competencies" (1988 b. 8). Herrmann's organizing principle

helps in the understanding of how individuals think—which is not necessarily as a single

unit but rather a coalition; a combining of quadrants A,B,C, and D. "As we go through a

decision-making process we apply the approaches and strategies of each quadrant to the

degree of our preferences" (Herrmann. 1988 b. 9). Our thinking modes influence how we

communicate, solve problems, deal with relationships and make decisions (Herrmann,

"Discovering your creative self" soon to be published).

SECONDARY SCHOOLS RECOGNITION PROGRAM

The effective schools research is well summarized by reference to the five factors

characteristic of schools that have been thus recognized:

1. A school climate conducive to learning—one free of disciplinary problems and vandalism

2. The expectation among teachers that all students can achieve

3. An emphasis on basic skills instruction and high levels of student time-on-task

4. A system of clear instructional objectives for monitoring and assessing students' performance

5. A school principal who is a strong programmatic leader and who sets school goals, maintains student discipline, frequently observes classrooms, and creates incentives for learning (Bossert, S.T. as found in "Shaping Visions: Themes and issues in the Sourcebook" by Kyle. July, 1985. 7)

"The topic of secondary school effectiveness—and success—is particularly timely because public attention once again is being directed to the critical examination of the purposes and the effectiveness of the nation's public secondary schools" (Kyle. 1985. 72). Educational reform seems to be an emerging and reoccurring event in the lives of Americans. This "reform" occurs in cycles of 10 to 15 years. During the last cycle, (1970s), research concluded that American secondary schools were in trouble because they were inhumane and too rigid. Schools were viewed as being dull and authoritarian. The curriculums were often unrelated to the needs of the students. Researchers, (Passow. 1977; Timpane, Abramowitz, Bobrow, Berryman, and Anthony. 1976. found in Passow. 1984), saw schools with more student choice, greater individualization of programming, more community involvement, better career preparation, an earlier school-leaving age, and smaller schools as being the answer to education's woes (Passow. 1984. Chapter One).

With Vietnam and Watergate uppermost on the American public's mind, there was little response to the crisis of education. However, beginning with the Paideia Proposal in 1982, researchers found the nation more receptive to education (Adler. 1982; Boyer. 1983; The College Board. 1983; The Education Commission of the States. 1983; The National Commission on Excellence in Education. 1983, found in Kyle. 1985. 94). "The reports

present a comprehensive and, on balance, highly negative assessment of the health of public secondary education. This strong criticism has stimulated and focused growing public concern about the quality of the nation's schools" (Corcoran and Wilson. 1986).

In 1983, the United States Department of Education began a secondary-school recognition program recognizing schools for excellence in education. The stated purposes of this program are to "identify and recognize unusually successful public secondary schools, and through publicity and other means, encourage their emulation by other educators" (Corcoran and Wilson. 1986. ix).

Data from the first three years of the program show that schools have been selected from urban, suburban, and rural communities. These schools are exciting places for their students and represent working models of what is possible in public education. Additional data show that in the nation as a whole, students are three-and-one-half times more likely to drop out of school than students in recognition program schools. Recognition program schools also encourage more students to pursue higher education than regular high schools (Corcoran and Wilson. 1986. ix).

Assessment of school qualities and conditions according to the recognition program's 14 attributes of success shows recognized schools as having unusual strength in the areas of: student discipline, extra-curricula participation, recognition of student behavior and performance, school climate, rates of student and teacher attendance, attention to academic learning time, teacher efficacy, and community support (Corcoran and Wilson.1986. x).

Nine themes characterize the portraits of successful secondary schools. The first theme is a "sense of shared purpose among faculty, students, parents, and the community (Corcoran and Wilson. 1986. x) The school goals and objectives are taken seriously and are translated into actions in these schools.

A second theme revolves around the school leadership. In these schools the principal provides the necessary vision and energy in creating and maintaining conditions for success. "Successful principals understand their major constituencies—students, staff, parents, and central office—and are able to work effectively with each" (Corcoran and Wilson. 1986. x).

Another theme deals with control and discretion. The principals usually exercise control in three ways: "by monitoring the school's operation; by insisting on careful articulation and management of the curriculum; and by being thoughtful and careful in their supervision of teaching staff" (Corcoran and Wilson. 1986. x). These principals give their teaching staffs autonomy in doing their work.

Successful secondary schools effectively recruit and hold on to talented teachers and administrators. Most schools of excellence have a high percentage of teachers with master's degrees or more. The teachers stay because they have a sense of belonging and a power to influence. They have a greater sense of dignity and opportunity for personal progress and growth.

A system of rewards for accomplishments is also a theme that exists in recognized schools. Teachers are singled out both in formal and informal ways.

The sixth theme that runs through recognized, effective schools is the positive relationships that exist between teachers and students. There is an open, caring relationship that shows students that not only does the school care about their academic achievement but also cares about them as human beings.

In these schools there is found a strong conviction that all students can achieve and that all students can be motivated to learn. There are high expectations, but there are also stronger reward systems (Corcoran and Wilson. 1986. xi).

Even though each school is not perfect, another theme that runs through all these schools is their creative responses to the problems they encounter. Problems are viewed

as opportunities for improvement.

The last theme that emerges from the data is the high degree of involvement by parents and the community members in school affairs. They contribute by being human resources, by promoting the schools through public relations campaigns, and by seeking additional funds for their schools (Corcoran and Wilson. 1986. xi).

A review of the demographic data show that urban, surburan and rural schools were all represented. However, data indicate that urban schools have been recognized in proportion to their national number, that suburban schools are over-represented and that there is an under-representation of rural schools (Corcoran and Wilson. 1986. 5).
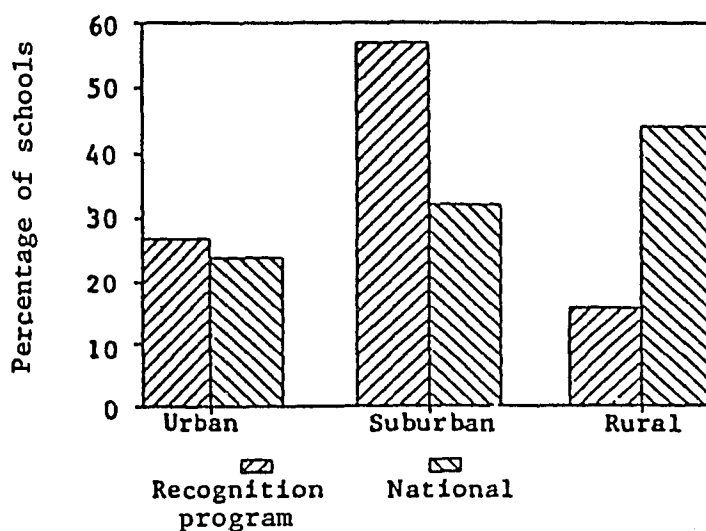
Figure 6:   Metropolitan status of communities
Source: Corcoran and Wilson. (October, 1986). The search for successful secondary schools: The first three years of the secondary school recognition program. Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education. p. 9.

Data also reveal that the recognition program schools do not have exactly comparable proportions of minority students relative to the national distribution.

All other races
18.6%

White 81.4%

Recognition
program

All other races
26.7%

White 73.3%

National
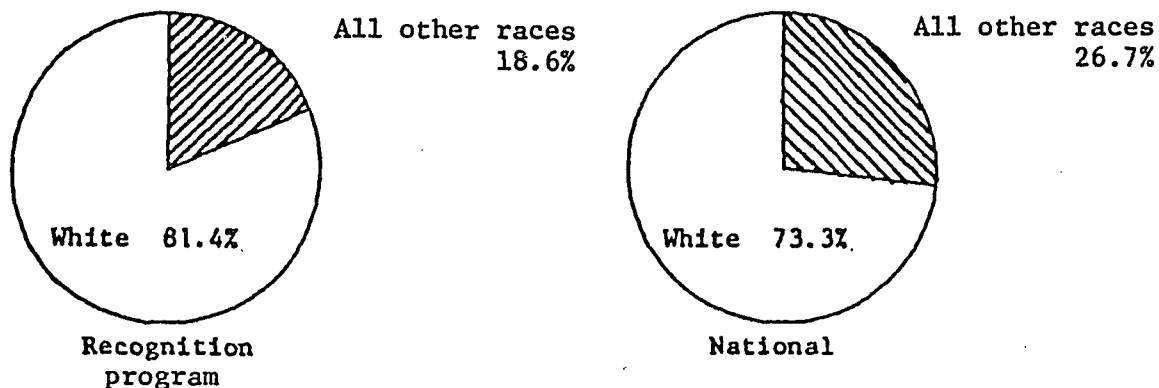
Figure 7: Racial composition of schools
Source: Corcoran and Wilson. October, 1986. p. 9.

Students in recognized schools are twice as likely to come from wealthy backgrounds. However, students are also one-and-a-half times as likely to come from families in the poorest category backgrounds (Corcoran and Wilson. 1986. 6).
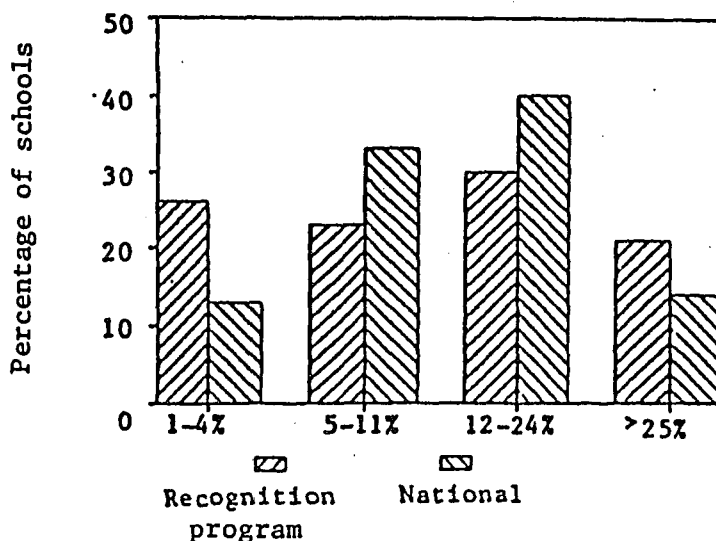
Figure 8: Students from low-income families
Source: Corcoran and Wilson. p. 9.

The data also indicate that schools in the recognition program tend to have larger enrollments, but they allocate their resources to provide lower teacher-student ratios.
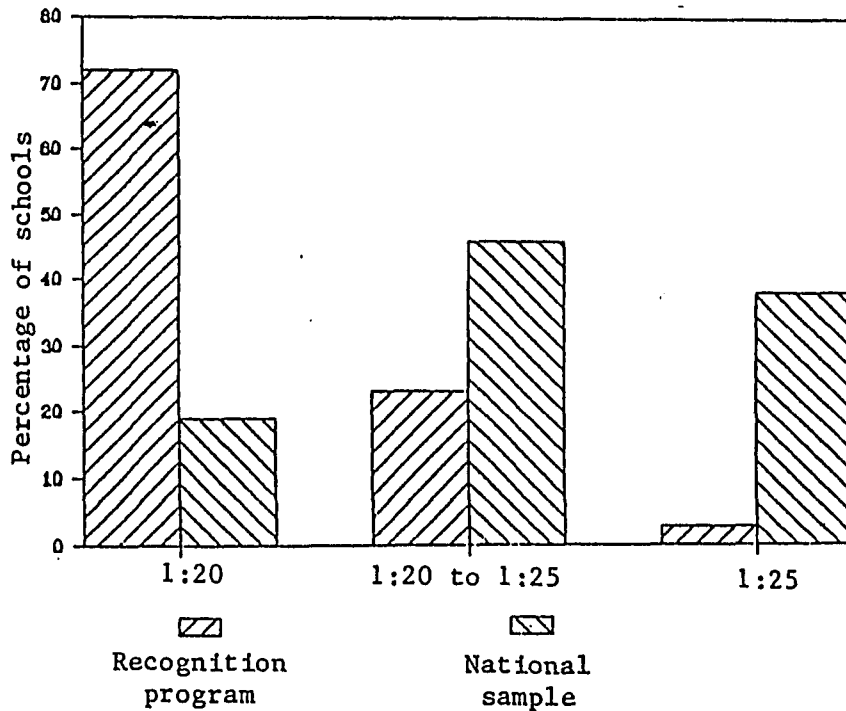
Figure 9: Teacher/student ratios
Source: Corcoran and Wilson. p. 11

Success does not appear to be related to length of service; there are almost as many newcomers in the recognition program schools as there are long-term principals. There were no significant associations found between length of service and the 14 attributes of successful schools, (Corcoran and Wilson. 1986. 7).
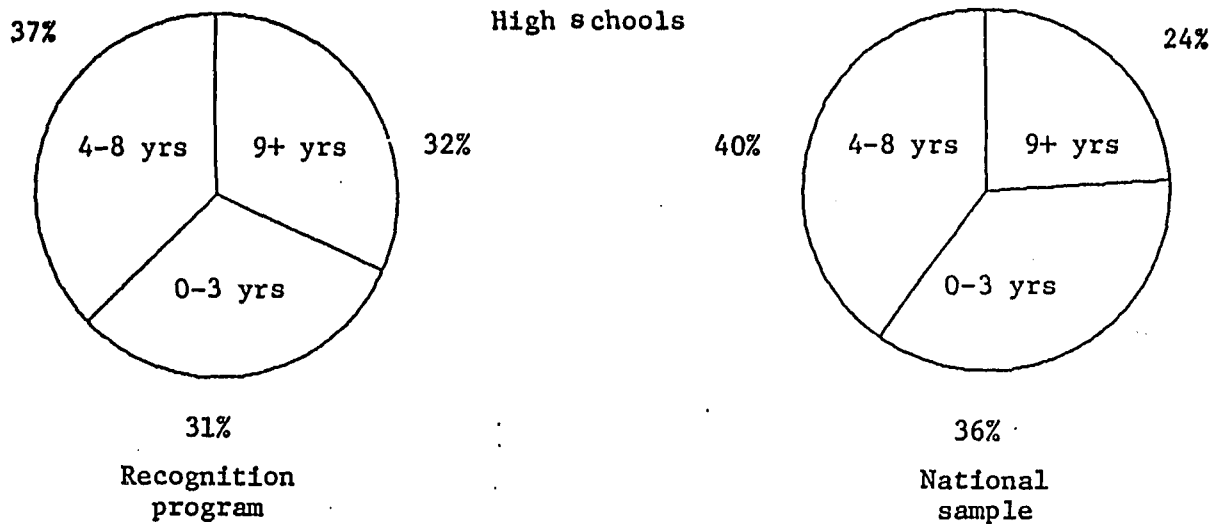
Figure 10: Principals' years of service
Source: Corcoran and Wilson. p. 12.

Leadership played a critical role in the schools selected for national recognition and the key actor was typically the principal. The principal was cited by teachers, students and parents as the major factor in their school's success. The principal provided the vision and the energy to create and maintain the conditions that were essential for success. The principal acted as the catalyst and was at the center of the action; he/she was committed to excellence (Corcoran and Wilson. 1986. 39).

Another striking feature of recognized schools is the diversity of leadership styles. No leadership style seems dominant. In some cases there is a dynamic, powerful principal who seems to be everywhere and orchestrating everything; in other cases the principals are collegial and low-key, relying on persuasion, delegation, and their ability to select and develop strong faculty members (Corcoran and Wilson. 1986. 39). But no matter what their style, all of these principals are seen as being fair and working as hard as they can to

create the best possible conditions for all students.

The secondary schools described in this section demonstrate the enormous potential of public education. These schools are working laboratories in which high quality, comprehensive education is provided to student bodies from diverse social, economic, and political circumstances. "While their contexts, programs, policies, and practices vary, their commitment to excellence does not. This is their hallmark, their primary message to the American public" (Corcoran and Wilson. 1986. 69)

As shown by the data in Figure 11, students in schools of excellence are less likely to drop out of school and more likely to enroll in a four-year college after high school graduation.
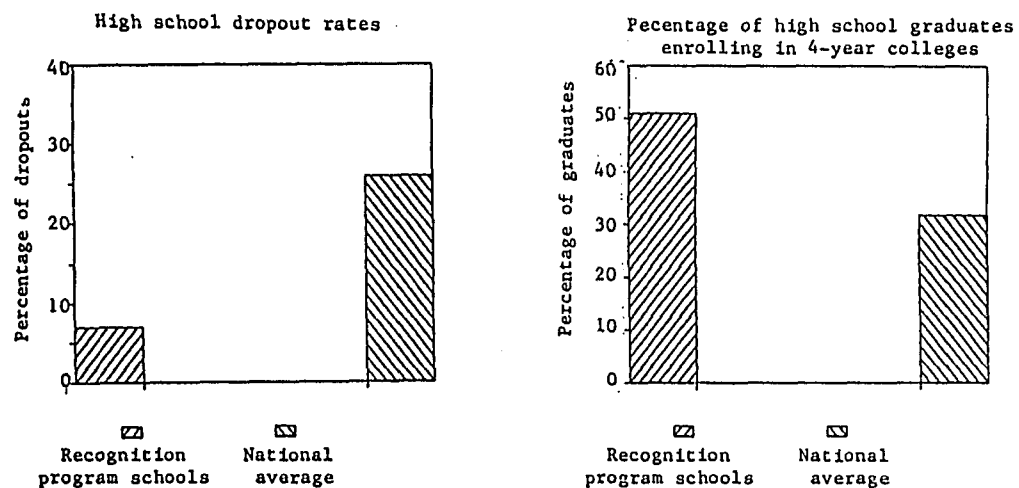
Figure 11: High school dropout rates and percentages of high school graduates enrolling in four-year colleges
Source: Corcoran and Wilson. p. 14.

Summary

This literature review explored the definitions of leadership; some leadership behaviors; education leadership characteristics; creative leadership; leadership styles; brain research in regards to the education leader; and education leaders involved in the Secondary Schools Recognition program. Even though this section contained broad areas of research, when looking in summation, the entire chapter suggests that schools need leadership with vision. Leaders who look at education, it's problems, and it's focus, and creatively conceptualize directions for a successful future. According to this research, this requires a thinking style that is holistic—intuitive and creative—in nature; or right hemisphere thinking.

Many education leaders today rely on the analytical, logical left hemisphere thinking style to maintain the status-quo; to avoid effective change in education. Education needs reform; it needs to move in creative new directions; it needs for its leaders to use a holistic thinking style which develops the entire brain—both left and right hemispheres; and it needs leaders that empowers subordinates to reach for new and exciting education adventures.

CHAPTER III

METHODOLOGY

INTRODUCTION

This exploratory research studied female principals in high schools of excellence, as designated by the Secondary Schools Recognition Program, throughout the Southeastern United States as defined as the area of the Southern Association of Colleges and Schools (SACS). The study attempted to give a descriptive comparison of nine specific female principals. There have been only 19 female secondary principals in schools of excellence in SACS since the beginning of the recognition program. Of those 19, eight have taken other jobs. Of the remaining eleven, two chose not to participate in the study.

The study contains a profile on each subject. Included in the profile are a subjective self evaluation, the Leader Effectiveness and Adaptability Description (LEAD-Self); three subjective other evaluations, (LEAD-Other); demographic and career path data obtained via questionnaire; data from personal interviews, (three were conducted on site, six were done by telephone); the results of the Herrmann Brain Dominance Survey, and Hemphill and Coons' Leader Behavior Description Questionnaire (LBDQ).

PROCEDURE USED IN SELECTION OF SUBJECTS

Methodology

The entire population of 19 female secondary school principals in schools of excellence in the Southeastern United States was the target for this study. This was done in the belief that these subjects represented the best in female educational administrative leadership

than if the selection had been made from a random sampling of all female high school principals. A letter of explanation with a request for participation as a subject in the study was sent to each principal, (see Appendix D). There were positive responses from a total of nine principals (eight principals had taken new jobs and two decided not to participate). Schools of excellence, as defined by the Secondary School Recognition Program, have been identified and recognized as being unusually successful public secondary schools and through publicity and other means, other schools are encouraged to emulate them. Each school of excellence must first be nominated by its State Education Agency and then pass a rigorous screening and site visit. Attributes of success identified in current school effectiveness studies that must be achieved include: clear academic goals, high expectations for students, order and discipline, administrative leadership, well-articulated curriculum, evaluation for instruction improvement, rewards and incentives for teachers, concentration on academic learning time, positive school climate, community support and involvement, regular and frequent monitoring of student progress, opportunities for meaningful student responsibility and participation, teacher efficacy, and rewards and incentives for students (Corcoran and Wilson. 1986. ix and 19-32).

Data Gathering

The participants received a questionnaire (Appendix E) that dealt with demographics and career paths and also the LEAD-Self (Appendix F) which they completed about their perceptions of self. The participants selected a super-ordinate, and two sub-ordinates to complete the LEAD-Other (Appendix F). This gave other perceptions of the individual principal.

Three subjects were interviewed on-site and the other six by telephone to obtain a better profile of each individual principal. A standardized, open-ended interview, with the exact

wording and sequence of questions determined in advance was used (Appendix A). All interviewees were asked the same basic questions in the same order. This aided in increasing comparability of responses while reducing interviewer effects and bias. It also facilitated organization and analysis of the data obtained. The data obtained from the various interviews were organized into charts and graphs to facilitate the findings of commonalities and dissimilarities. After the interview each of these principals was asked to complete Herrmann's Brain Dominance Survey (Appendix B). This instrument was selected to determine administrative brain dominance style to give added information on why and how these specific administrators do what they do when leading in their individual schools.

As a final measure for each profile these leaders were given the Leader Behavior Description Questionnaire (Appendix G). This instrument was selected because it has always been seen as being important for students of school leadership.

Instrumentation

The Leader Effectiveness and Adaptability Description (LEAD) comes in two forms: LEAD-Self and LEAD-Other (see Appendix F). The LEAD-Self contains 12 leadership situations. Respondents select from four alternative actions, representing the four styles of leadership, the style they feel would most closely describe their own behavior in that situation. This inventory is designed to measure self-perception of three aspects of leader behavior: style, style range, and style adaptability. Realizing that self-perception of one's leadership style may not reflect one's actual style as perceived by others, Hersey and Blanchard developed the LEAD-Other. This inventory contains the same 12 leadership situations and reflects how the leader is perceived by subordinates, superiors or peers, (Hersey & Blanchard. 1982. 4th ed.).

In his study of the LEAD-Self, Greene analyzed responses of 264 managers ranging in age from 21 to 64 to standardize the LEAD-Self. The concurrent validity coefficients of the 12 items ranged from .11 to .52. In another study, a correlation of .67 was found between adaptability scores of the managers and the independent ratings of their supervisors, (Greene. 1982).

In his study of the 264 managers, Greene also collected item analyses data and reliability data. Each response option met the operationally defined criterion of less than 80 percent with respect to selection frequency. On test-retest across a six-week interval, 75 percent of the managers maintained their dominant style and 71 percent maintained their alternate style, (Greene. 1982).

Brain researcher Ned Herrmann tested more than 7000 people to find out which side of the brain they favored. What he discovered was a strong relationship between hemisphere dominance and the way subjects made a living. Left-brain-oriented subjects were more often lawyers, writers, bookkeepers, doctors, tax experts—jobs dealing with logical, language-related information, while right-brain-oriented subjects were more often poets, politicians, musicians, architects, entrepreneurs, dancers, and top executives—jobs dealing with metaphorical thinking and intuition. The study showed that the most successful people in any occupation were those who used both the left and right brains, (Englebardt. 1988).

The Herrmann Brain Dominance Instrument , a scientifically designed and validated paper-and-pencil survey, produces a profile of an individual's preferred mode of thinking or brain dominance, (Herrmann. 1988). There are several categories of information. These include: (1) key descriptors of the individual's basic personality type; (2) work elements which are a part of the individual's current job assignment; (3) educational background and occupational choice: (4) hobbies; (5) psychologically oriented information related to hand position in writing, left/right handedness, motion sickness, and energy level; (6) a

forced choice selection of descriptive adjectives; (7) measurement of introversion vs. extroversion; and (8) situational statements to which the respondent indicates level of agreement or disagreement (Norris. August, 1984. 57).

The instrument has a data base in excess of 1,000,000 individuals from many parts of the world. Validation studies conducted by researchers at WICAT, Inc. (Orem Utah), the University of Texas at Arlington, and Brigham Young University have established the Herrmann Brain Dominance Instrument as an accurate and reliable survey instrument. On-going research, refinement of the instrument, and growing data base continue to validate and confirm its accuracy and applications, (Herrmann. 1988).

This instrument was selected in this study to determine administrative brain dominance styles of the female principals. The Whole Brain Model (Appendix H) arranges left-right brain patterns into both cerebral and limbic portions resulting in a quadrant view of brain dominance. Herrmann believes that human thought processes are governed by both the left-right cerebral cortex (thinking) as well as the left-right limbic (feeling) areas of the brain. Even though we are directed by all parts of the brain, over time, a dominant pattern emerges, (Herrmann. 1988).

There are nine main scores derived from the Herrmann Brain Dominance Instrument : left/right dominance, the four quadrant scores, cerebral/limbic preferences, and introversion/extroversion. Ranges and means are derived from the scores of 7989 individuals analyzed as part of the doctoral dissertation work of Kevin Ho, (Bunderson. 1988). Approximately one third of these subjects were women. Results of left versus right brain dominance, using mean scores are included in Table 1:

Table 1
Mean Scores as the Results of Left Versus Right Brain Dominance

	LEFT SCORES	RIGHT SCORES
Men	95.2	86.0
Women	81.0	102.3

Source: Bunderson, C.V. (1988). The validity of the Herrmann Brain Dominance Instrument. Princeton, NJ: Research Management at Educational Testing Service. p. 12.

The four quadrant constructs are found in Table 2:

Table 2
Mean Scores of the Quadrant Constructs

	UPPER LEFT	LOWER LEFT	LOWER RIGHT	UPPER RIGHT
Men	75.1	68.0	55.5	73.9
Women	53.3	68.8	74.9	79.1

Source: Bunderson, C.V. (1988).

The comparison of cerebral versus limbic scores are found in Table 3:

Table 3
Mean Scores Comparing Cerebral Versus Limbic

	CEREBRAL (UPPER)	LIMBIC (LOWER)
Men	99.04	82.1
Women	87.91	95.4

Source: Bunderson, C.V. (1988). p. 13.

The introversion/extroversion dimensions are measured in the Myers-Briggs Type Indicator, an instrument for classifying types of personalities based in the theories of the psychologist Carl Jung. The Brain Dominance Instrument has been correlated with the Myers Briggs and found to be highly related, (Bunderson. 1988). For the Brain Dominance Instrument men have a mean score of 5.4 while women have a 5.7 mean (Bunderson. 1988).

In test-retest reliabilities for 78 repeated measures, again, Kevin Ho calculated the following results: Left—.96; Right—.96; A Quadrant—.86; B Quadrant—.93; C Quadrant—.94; D Quadrant—.97; Cerebral—.93; Limbic—.91; and Intro/Extroversion—.73, (Bunderson. 1988).

The LBDQ was developed for use in obtaining descriptions of a supervisor. It can be used to describe the behavior of the leader in any type of group or organization. This instrument reduces the dimensions of leader behavior to two strongly defined factors: Consideration and Initiation of Structure. Stogdill (1965) divided these two factors into 12 subscales: representation, demand reconciliation, tolerance of uncertainty, persuasiveness, initiation of structure, tolerance of freedom, role assumption, consideration, production emphasis, predictive accuracy, integration, and superior orientation. Each subscale of the test instrument is composed of either five or ten items.

The interview instrumentation (Appendix A) was used in two different ways. The first three interviews were conducted on-site at three of the schools of excellence. There are several reasons for an on-site interview: the interviewee was in her own comfortable physical setting, the interviewer was able to maintain good eye contact and be sensitive to cultural differences in terms of physical closeness and speech patterns and body language, the interviewer could observe the physical surroundings at each individual school and the interviewer could evaluate the interview in terms of faults in structure during the dynamics of the interaction with the interviewee. The second set was conducted by telephone. The interviewees were sent an outline of the interview questions in advance so

that they would know what type of questions to expect. They were also asked to pick the time and place for this telephone interview. The main purpose for this was so that they could be in the most comfortable setting possible.

The demographic form (Appendix E) was mailed to the participants. The questionnaire was used to determine the current status of selected female principals in secondary schools of excellence. It combined both closed and open-ended responses. This method allowed the researcher to take advantage of the reduced time factor of the restrictive questionnaire and the information gathering capabilities of the open-ended form. Information from the questionnaire was summarized using a data summary sheet. For easier facilitation of data gathered, charts, ratings, and graphs were also used for commonalities and dissimarilities. A summary report for each participant was written including information collected from interviews, questionnaires, LEAD-Self and LEAD-Other, the Herrmann Brain Dominance Survey and the Leader Behavior Description Questionnaire—Form XII.

Scoring

The LEAD Matrix was used for scoring and analysis of data collected for this study from the LEAD-Self and LEAD-Other. The LEAD Matrix Summary provides feedback on several key leadership variables (Appendix F). The primary or basic style is the quadrant or quadrants which has the greatest number of responses. The secondary style includes any quadrant other than the primary style quadrant(s) in which there are two or more responses. The style range and flexibility refer to the total number of quadrants in which there are two or more responses. Three or more responses in a quadrant indicate a high degree of flexibility. Two responses in a quadrant indicate moderate flexibility and one response in a quadrant is not statistically significant to predict flexibility. The style adaptability indicates the degree to which changes in styles are appropriate to the level of readiness of the people involved in different situations. An adaptability score in the range

of 30 to 36 indicates a leader with a high degree of adaptability. Scores from 24-30 indicate a moderate degree of adaptability. A score below 24, indicates a need for self-development to improve the ability to diagnose task readiness and use appropriate leader behaviors. These scores only reflect tendencies one would have if given equal oportunities to make decisions at all four levels of readiness.

A scoring key was used to score items from the LBDQ. It indicates the items relevant to the two dimensions: initiating structure and consideration and the 12 subscales. Each response by the subject was given a score of one to five in the following manner:

A=5; B=4; C=3; D=2; E=1

However, on the 20 starred items on the scoring key the score was reversed:

A=1; B=2; C=3; D=4; E=5

Each quadrant of the Herrmann Brain Dominance Instrument receives a dominance score of: 1 (signifying primary dominance), 2 (signifying secondary dominance), or 3 (indicating minimal use) (Norris. August, 1984. 59). Scaled scores of 67 to 100 are assigned a dominance score of 1; scaled scores of 34 to 66 are assigned a dominance score of 2; and scaled scores of 2 to 33 are assigned a dominance score of 3 (Norris. August, 1984. 59) (Appendix C). There are four separate scores which measure the dominance of each quadrant of the brain for each individual's profile. According to Norris (1984. 62), the profile classifications include: 1111—Whole Brained; 1121, 1211, 1131—Whole Brained Cerebral; 1221—Double Dominant Cerebral; 1112, 2111—Whole Brained Limbic; 2211—Right Brained; 2121—Double Dominant Left Limbic/Right Cerebral; 2122—Left Limbic; 1122, 1123, 1132—Left Brained; and 2112—Double Dominant Limbic.

Statistical Design and Procedures

<u>Design</u>

This study was a descriptive comparison of nine female secondary school principals in schools of excellence. It combined a quasi-experimental, ex post facto study with a subjective self evaluation, a subjective other evaluation, a demographic and career path questionnaire, personal interviews, the administering of <u>Herrmann's Brain Dominance Survey</u>, and Hemphill and Coons' <u>LBDQ</u> to these principals.

Kerlinger (1973) defined an ex post facto study as "research in which the independent variable or variables have already occurred and in which the researcher started with the observation of a dependent variable or variables" (p. 379). The independent variables were studied in retrospect for any possible relations to, and effects on, the dependent variable(s).

Kerlinger (1973) provided a careful discussion of ex post facto research. Portions of his description are quoted here to provide clarity.

> Ex post facto research is systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable (p. 379).

Inferences about relations among variables are made, without direct intervention, from concomitant variation of independent and dependent variables (Kerlinger. 1973. 379).

> In this research, y is observed, and an x, or several x's are also observed, either before, after, or concomitant to the observation of y. The basic purpose is the same as for an experimental design, to establish the empirical validity of so-called conditional statements of the form: if p, then q (Kerlinger. 1973. 380).

In ex post facto research, direct control is not possible: neither experimental manipulation nor random assignment can be used by the researcher. He or she must take things as they are and try to disentangle them (Kerlinger. 1973. 380).

The ex post facto research is valued in education simply because many research problems in this area lend themselves to experimental inquiry. Education problems lend themselves to controlled inquiry of the ex post facto kind, so it can be said that ex post facto research is more important than experimental research to the education researcher (Kerlinger. 1973. 391).

There are three important rules to remember when considering education ex post facto research.

1. Ignore any ex post facto study that does not test hypotheses

2. Be highly skeptical of any ex post facto study that tests only one hypothesis

3. Always treat the results and interpretations of the data of ex post facto investigations with great care and caution (Kerlinger. 1973. 392)

In addition to this study being an ex post facto design, it was also an exploratory field study using survey method. This field study was accomplished by using a questionnaire and interview.

Procedures

The objectives of this research were three-fold:

To shed additional light on the leadership qualities that women bring to the field of educational administration

To examine leadership styles of female principals in high schools of excellence throughout the Southern region of the United States

To explore relationships between female principals' leadership styles and their compatibility to the standards of high schools of excellence

These objectives led to the development of hypotheses and related research questions. The following questions composed the content of the study:

Question 1. What leadership characteristics do successful female secondary principals possess?

Data were analyzed from the interview, questionnaire and the LEAD-Self and LEAD-Other to determine these characteristics. A review of the literature indicates that women education leaders have a non-authoritarian leadership style. The so-called feminine leadership qualities include sensitivity, democracy, and humanity.

Question 2. How do the leadership styles of these principals differ?

Data were analyzed from the LEAD Matrix. Included in this was an in-depth analysis of style range, flexibility, and adaptability of each subject from the individual perspective and the perspective of others. The review of literature shows that the women's leadership style relies on emotional as well as rational data. It responds to situations on both thinking and feeling levels and is more apt to be concerned with maintaining close personal relationships with others.

Question 3. How are these styles alike?

The review of literature holds that the feminine leadership model has a cooperative operating style with a team organizational structure. Using the LEAD Matrix analysis, data show the individual and other perspective of style for these female principals.

Question 4. Is there one prevalent style that is used by these female principals?

According to Loden (1985), the key characteristics of the female model are lower control, empathic, collaborative, and high performance standards. The problem-solving style is intiative and rational with a team approach to structure. These characteristics would most closely align with the LEAD participating style.

Question 5. What are the personal and professional characteristics, job related tasks, and expectations of these female principals?

Data were analyzed from the questionnaire and the interview to determine these aspects. The review of literature revealed studies showing that women conducted more unscheduled meetings, monitored less, took fewer trips away from the building and observed teachers more, (Shakeshaft. 1986). This researcher also found that women viewed the job of principal as that of a master teacher or educational leader as they gave more attention to the individual differences among students and teachers. Shakeshaft found that female principals involved teachers, superiors and outsiders in their work, and that they encouraged community building, were polite, cheerful, respectful, and showed appreciation.

Question 6. What similarities and differences exist in the characteristics, tasks, and expectations of these principals ?

Data were analyzed from the questionnaire and the interview into charts and graphs to determine commonalities and dissimilarities. The review of literature shows nothing about the similarities and differences among women leaders. It only shows similarities and differences between female and male leaders.

Question 7. What mental processes do these principals use as revealed by the Brain Dominance Survey by Herrmann ?

The frequency distributions and percentages of all brain dominance patterns were analyzed to determine these mental processes. Chi Square procedures were used to represent dominance by cluster codes. A review of the literature revealed that administrative leaders, much like CEOs, needed to possess whole-brained/right-brained thinking styles.

Question 8: How do the individual mental processes help each principal as a leader ?

Cluster codes were evaluated to determine brain dominance. Herrmann (1988) suggested that the most successful people in any occupation were those who used both the left and right hemispheres of the brain in the thinking process.

Question 9: How are the career paths of these successful female principals of schools of excellence similar and different ?

The career path questionnaire data were organized into charts and graphs and anlyzed to determine commonalities and dissimarilities. The review of the literature suggested that women usually did not decide until late in life that they wanted a management position. This was the product of prior influences and current circumstances (Kanter. 1977). Gross and Trask (1976), found that over four times the number of men as women became principals within ten years of becoming teachers.

Question 10: Does the LBDQ with its reliability/validity and norming on all male subjects, seem to work qually well with these nine female principals as with male subjects?

Data were analyzed to determine the items relevant to two dimensions: initiating structure and consideration and to the 12 sub scales. Means, standard deviations and quartile scores were used on both dimensions. The literature reviewed revealed that means and standard deviations were determined using commissioned and noncommissioned officers in an army combat division, the administrative officers in a state highway patrol headquarters office, the executives in an aircraft engineering staff, ministers of various denominations of an Ohio community, leaders in community development activities throughout the state of Ohio, presidents of successful corporations, presidents of labor unions, presidents of colleges and universities, and United States Senators. This question-naire was considered very relevant for students of leadership.

Question 11: What is the correlation between raw scores on the Brain Dominance Survey and raw scores on the LBDQ?

The raw scores were organized into a Pearson r table to calculate the relationship between brain dominance and leadership behavior. A Spearman rho was also calculated. Finally, z scores and T scores were computed.

Summary

This study explored the career path, the leadership styles, and the cognitive styles of nine female principals in high schools of excellence across the Southeastern United States. It investigated commonalities and dissimilarities among the subjects. Chapter IV presents these research findings.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

INTRODUCTION

This study investigated the relationship between the cognitive styles and the leadership styles of female secondary school principals in schools of excellence, grades seven through twelve, in the Southern region of the United States (schools in states of the Southern Association of Colleges and Schools—SACS—area of accreditation). It gave a descriptive comparison of nine specific female principals. There were originally 19 female secondary school principals who qualified for the study. Eight have taken other jobs and two decided not to participate. Table 4 gives demographic descriptions of the nine subjects. It should be noted that Principal Two was not the principal when this study began. She was at the school however, and participated in the process to receive the Excellence Award. She became principal during the middle of the school term.

Subjects in this study completed an interview (Appendix A) either in person or by telephone, the Herrmann Brain Dominance Survey , an instrument developed to determine brain dominance (Appendix B), a demographic questionnaire (Appendix E), The LEAD-Self, a leadership instrument that gives a subjective self evaluation (Appendix F), and Hemphill and Coon's Leader Behavior Description Questionnaire (LBDQ), an instrument that describes the behavior of the leader in any type of group or organization (Appendix G). The subjects asked subordinates and superordinates to complete the LEAD-Other, a subjective other evaluation of leadership style (Appendix F). Various statistical procedures were used to investigate relationships, commonalities, and differences among these education leaders. This chapter presents these data as they relate to each hypothesis and research question that guided this study.

It should be noted that there could be possible differences existing between the on-site interviews and the telephone interviews since data obtained cannot be equated with fact finding alone. An interview must also be concerned with attitudes, values, feelings, hopes, plans and descriptions. The interview is not restricted to what is objective, superficial or easy to verbalize; it also includes non-verbal communication. In the telephone interview, non-verbal communication could not be observed. During the on-site interviews the interviewer had the opportunity to note facial expressions, gestures, bodily position and movements of hands, feet and head. This difference could possibly affect the outcome of the interview.

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Table 4

Demographic Description of the Nine Subjects
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Subject	Age	Marital Status	# of Children	At the beginning of the study # of years as a principal	# of years as a teacher	Highest degree
1	47	Married	2	9	5.5	6th year
2	38	Divorced	1	1	12	master
3	60	Widow	1	20	17	doctorate
4	54	Single	0	11	18	6th year
5	59	Married	6	9	14	master
6	48	Married	4	2	13	6th year
7	48	Widow	2	11	4	6th year
8	47	Married	2	7	8	master
9	44	Single	0	12	6	6th year
Average	49.4			9.1	10.8	

Average age entering principalship   40.3

Range entering principalship (age)   32-50

Mode entering principalship (age)   37,40

Median entering principalship (age)   39

==

Hypotheses and Research Questions

Several hypotheses and questions were considered in this study. They were suggested from the literature review and from prior research on brain dominance and leadership styles. The hypotheses include:

H_1: Leadership styles, as measured by the LEAD-Self, for these female secondary school principals will be flexible—these females will be able to modify their behaviors to fit any of the four basic styles used in the book by Hersey and Blanchard (1982): delegating, participating, selling, and telling.

H_2: These women will have clear educational goals and communication and decision-making styles that stress cooperation. They will monitor, evaluate student progress, and promote achievement and learning as well as display high morale and commitment.

H_3: Cognitive styles of the principals, as measured by Herrmann's Brain Dominance Survey, will closely align with those Chief Executive Officers (CEOs) previously cited and be more holistic or right-brain dominant than typical male counterparts in the principalship.

H_4: These female principal will have varied career paths leading to their selection as principals—not simply from teacher to principal.

H_5: There is no difference between the mean of this study's subjects of female principals and the mean of the norming test group of male leaders on each sub scale of the Leader Behavior Description Questionnaire.

Before looking at the questions that guided this study, there will be a brief paragraph introducing each of the nine principals. Data were obtained from interviews with the principals and with some of their subordinates and superordinates for these introductions.

An introduction to, and a synopsis of, the nine female principals in schools of excellence used as the sample in this study.

Principal One was the first female high school principal in this Southern state to have her school honored for excellence by the United States Department of Education Secondary School Recognition Program (SSRP). Her school is on a fifty-acre wooded track of land only a few miles from the metropolis capital of one of our Southern states. The school's program offers a vast array of electives not available at any other high school in the state. The curriculum allows students to concentrate on one of three special fields of study: visual and performing arts, math and science, and the humanities. Principal one attributes the success of the programs in her school to a dedicated team of administrators and teachers working 15 hours a day. She exclaims:

> I want kids to be successful academically, no matter what the race, creed or ethnic group...I like nurturing and working with special needs students, but I also like nurturing and working with my faculty—rewarding them so that they feel needed. I involve people, that's my style...I like to be partners with my teachers and with my parents (see Appendix I for full observation report).

Principal Two is in a school setting surrounded by a beautiful upper-middle class residential suburb in a large city. The school is a modern treatment center consisting of a school and administration building, a convent, and three residential dormitories housing a capacity of 44 adolescent girls. Typical girls who come to this school have experienced neglect and abuse and have resorted to running away, truancy, and a variety of other self defeating behaviors. Girls are referred to this school by personnel in school districts, juvenile court, and other social service professionals. Each student is provided with an individual education plan (IEP), counseling, and group living services that guide each girl

to mature behaviorally and ethically. Principal two seems very warm and caring. As she addresses some new students she says:

> I came to let you know that you are part of our family—we love you a lot and cry tears when you leave...When we are strict, we still love you. When you make a mistake I'll tell you; that's my job.

She sees herself as being a good organizer and negotiator as she looks at "the whole picture". She comments:

> I like to let people work on their own individual details while I maintain the universal perspective. My leadership style will work anywhere...I honestly do like the people I work with and the students (see Appendix I for full observation report).

Principal Three sees herself as her school's "best cheerleader". The school is a large facility located virtually "downtown" in a city of approximately 400,000 people. She is very visionary and optimistic. She sees a future goal of 25 medical scholars in a class where 90 per cent are college bound with a million dollars worth of scholarships in their pockets. She quips:

> I have the kind of leadership and personal security to allow my students personal freedom...I am prepared and I give attention to details. I select teachers with high writing and technical skills...In short, I do my homework!

Her homework includes having a strong academic and vocational curriculum which is supplemented by special programs for approximately 200 international students and three groups of special education students (hearing impaired, learning disabilities, and multiple

handicapped). She believes in participatory management. Teachers and students alike help in decision-making policies. She is liked and respected in both the school and civic community. To quote principal three:

> I believe it is important to have a high visibility in the school and community, so I serve on boards in the community, state, and nation for both civic and education boards (see Appendix I for full observation report).

Principal Four is the CEO for a large magnet college preparatory high school centered around the performing arts in a large Southern city. She sees part of her job as taking bright students and helping them become brighter. By court order her students must maintain a specific grade point average and also be functioning on or above grade level (there are hundreds on a waiting list to become students here). Her vision for her school includes expanding the curriculum. School number four already has a working radio station; this principal envisions a working television station also.

As the only female high school principal in her school district, she sees herself as being very independent. "I don't depend on others...I have the sole responsibility for my school." When asked about her perceptions of her leadership style:

> I see myself as being both authoritarian and a delegator depending on the circumstances. I expect my faculty to do more, and they do...They do such things as their class schedules. I believe this delegation helps raise morale...and we do have high morale. I'm not wishy-washy. I am well organized and have the ability to look at a problem and make a decision— then stick to it.

Principal Five has just retired from a small urban Catholic high school in one of our Southern cities. Even though she sees herself as a risk taker, she does not make hasty

decisions under "normal" circumstances. However, "once I make it—that's it—I live by it".

She hastens to add:

> I don't mind admitting a mistake. I'm never threatened by another's talent, I recognize those talents and use them. I allow them to grow.

Principal five lists her main leadership attribute as being a partner with her faculty.

> I like partnerships—that's my plus. I include the faculty in decisions. I'm a good listener. I seldom use power. I set my agenda—know what I want to do—and help them to 'see' it.

She is indeed perceived as an excellent principal. Her awards include outstanding principal, Today's Catholic School teacher, a national magazine principal of the month, "Who's Who" of educators, and the Sam Rosen Educational Service of the Month Award.

Principal Six has a concern and desire to see students achieve. (Author's note: Even though she was not the principal when the school applied for the excellence award, she was on the faculty and helped. She became principal the year the school actually received the award.) In her nurturing and concern she knows that all students can learn. This dynamic woman is principal of a private high school for underprivileged black girls. She tries to develop programs to challenge each student to perform to her best. She spends a great deal of time on curriculum—"I find time for it...I specialize in curriculum and the nurturance of my teachers as leaders."

> I work with people rather than being a super-power. I try to develop the potential in others. Sometimes I know that I must make the decisions, but

if it is at all possible, decisions are joint endeavors.

She adds:

> I'm a good listener and communicator. My vision for the girls in my school
> is the same as my vision for my own children. My family adds to my vision—
> they are very supportive.

Her advice for herself and also other education leaders includes: "If you are going to really make a difference, you have to be a high school principal".

Principal Seven is a dynamic individual working as the head of a middle-sized rural high school in a poor district. A position she almost did not have. After being a secondary English teacher she became a secondary guidance counselor.

> I was counselor when plans were made to form a separate middle school. I
> applied for the position of principal then they decided not to have the school.
> The following year they had to have a middle school—they gave me the job.
> I turned it down because of the middle school philosophy. My high school
> principal took the middle school job. The names of two men were taken to
> the board for the high school position. One was approved—two weeks
> before school was to start, he resigned. I said I would be acting principal and
> told them 'if you're not satisfied, I'll make other arrangemants at the end of
> the year'.

Most were satisfied. Principal seven's motto is "let's work together and see what we can accomplish—90 per cent of the time". In the other 10 per cent she establishes authority. In her quest for a good school she says:

> I want my school to be where learning is exciting, fun and a little different.
> The ordinary mundane way loses them—I want fun to the degree that
> students and teachers are at ease in their work... I like to empower my

subordinates because they in turn give me power. I have an excellent staff—and I carefully chose most of them. They can either make or break me and the school. I chose high energy, dynamic individuals. I let them do it—I allow freedom and space—but we still have group work...While I give a lot of freedom I try to teach group dynamics...they are highly motivated. I have the ability to keep them—that makes us good—and we <u>are</u> good!

This dynamic woman has been an Outstanding Woman of America, an area Woman Achiever, selected to attend the National Leadership Endowment for Principals, President of the state's Association for Women, the only woman on the Administrative Council for Beta Club in the state and a Woman of Distinction.

<u>Principal Eight</u> is the dynamo in charge of a private day school in a large Southern city. To quote her:

> Nine-tenths of my job is communication...everybody should know where I stand because I have been in the same school for 15 years.

When talking about empowerment, she quips:

> I don't have to worry about that, my people are already empowered. I'm not comfortable with a boss-subordinate relationship...My people can close the door to do what they want. My job is to keep things running smoothly. I'm a good listener... I make people feel comfortable in what they're doing—I basically don't get in their way—they're professionals.

Her school was modeled after John Dewey's progressive education. She has several goals for her school and its students. Two stand out clearly:

1. To take care of her students' needs.

2. To convince the community that school number eight is an academic school—not an 'artsy-craft fun place' for rich kids to go.

To quote principal eight:

> I believe it is tremendously important that kids' needs are taken care of...they have plenty of problems. A big part of education is helping students survive emotionally...I also believe that you do not have to sacrifice a strong academic program to have a warm, loving, caring environment.

Principal Nine has been principal in not one, but two schools of excellence in her state; once in 1983, and again in 1986. Her current school is a magnet academic college preparatory school. She uses words like humanistic, caring and honesty as she describes the climate of her school. She sees her strongest asset as being a nurturer.

> I spend a great deal of time helping people grow. I see my role as being a nurturer. Of course, I bite the bullet when I have to!

She sees her leadership style as involving people in a shared decision-making process. She says:

> I feel good with this...I am very comfortable giving power to teachers and department heads. I'm a leader, but I don't rule by intimidation—it's not effective. I empower parents, students, and teachers. I let them explore while I act as guide. Sometimes it takes longer this way, but it gives them ownership. I give suggestions...Every major decision has a student representative helping make it.

This woman has many awards and recognitions as an outstanding education leader. A few include president of the Association of Principals, Outstanding Principal and Outstanding Administrator in the state. This is an outstanding principal in an outstanding school.

Questions guiding the study : The study's five hypotheses were investigated through the use of eleven questions that guided the study. The questions are grouped according to the way they appeared under each hypothesis. Questions relating to H_1 include:

Question 1: What leadership characteristics do successful female secondary principals possess?

Question 2: How do the leadership styles of these principals differ?

Question 3: How are the styles alike?

Question 4: Is there one prevalent style that is used by these female principals?

LEAD-Self and LEAD-Other Data

A LEAD Matrix (see Appendix F) was used to help analyze and organize the data from the LEAD-Self and LEAD-Other . Table 5 presents the primary style—quadrant in which you have the greatest number of responses; and the secondary style—quadrants other than the primary style in which there are two or more responses. Table 6 presents the style range and flexibility and the style adaptability. Style range refers to the extent to which style can be varied while flexibility refers to the total number of quadrants with two or more responses. The style adaptability is the degree to which changes in styles are appropriate to the level of readiness of the people involved in different situatons. Adaptability ranges from 30-36 indicate a leader with a high degree of adaptability; ranges from 24-30 reflect a moderate degree of adaptability; scores below 24 reflect a need or self-development to improve the ability to diagnose task readiness and use appropriate leader behaviors.

Table 5

Primary and Secondary Style(s) according to the LEAD-Self and the LEAD-Other instruments for the Nine Principals in this Study

| | Primary | | Secondary | |
Principal	Self	Other	Self	Other
One	Q2	Q2 Q2 Q2	Q1/3	Q1/3 Q3 Q3
Two	Q2	Q3 Q1 Q3	Q3	Q1/2 Q2/3 Q2
Three	Q2	Q3 Q3 Q2	Q3	Q2 Q1/2 Q3
Four	Q2	Q2 Q2 *	Q3	Q1 Q1 *
Five	Q2	Q3 Q2 Q2/3	Q3	Q2 Q3 **
Six	Q2	Q2 Q2 Q3	Q3	Q1/3/4 Q1/3 Q4
Seven	Q3	Q2 Q2 Q2	Q1/2/4	Q3 Q3 Q1
Eight	Q3	Q3 Q2 Q2/3	Q1/2	Q2/4 Q3 Q1
Nine	Q3	Q2 Q3 Q2	Q2	Q3 Q2 Q2

*missing data
**on the tally, 6 were scored for Q2 and 6 were scored for Q3 so there is no secondary style

Table 6

Style Range, Flexibility and Adaptability according to theLEAD-Self and the LEAD-Other
for the Nine Principals in this Study

Principal	Range and Flexibility		Adaptability	
	Self	Other	Self	Other
One	Q1/2/3	Q1/2/3	26	31
		Q2/3		28
		Q2/3		24
Two	Q2/3	Q1/2/3	28	24
		Q1/2/3		20
		Q2/3		27
Three	Q2/3	Q2/3	28	26
		Q1/2/3		23
		Q2/3		19
Four	Q2/3	Q1/2	23	27
		Q1/2		23
		*		*
Five	Q2/3	Q2/3	27	29
		Q2/3		24
		Q2/3		30
Six	Q2/3	Q1/2/3/4	30	25
		Q1/2/3		30
		Q3/4		22
Seven	Q1/2/3/4	Q2/3	31	26
		Q2/3		26
		Q1/2		27
Eight	Q2/3/4	Q2/3/4	28	24
		Q2/3		23
		Q1/2/3		25
Nine	Q2/3	Q2/3	24	25
		Q2/3		26
		Q2/3		26

*missing data

As shown in Table 5, Principals One through Six perceived their primary style as being style two while Principals Seven through Nine perceived their primary style as being style three. Principals One and Four were perceived by their subordinates and superordinates as being primarily style two. Principals Three, Five, Six, Eight and Nine were perceived by "Others" as having either style two or three as the primary style. Principal Three's subordinates and superordinates perceived her differently from her self-perception. They saw her as either style one or three. Principal Seven's "Others" perceived her as having primary style two.

Principals One through Six perceived their secondary style as two (Principal One adds style one to the list). Principals Seven through Nine all perceived style two as their secondary style (Principal Seven adds one and four; Principal Eight adds one). The LEAD-Other perceptions are basically different. The closest alignment between Self and Other is with Principal One.

Table 6 shows an alignment between styles perceived by "Self" and by "Other" with Principals One, Two, Three, Five, and Nine. There are some differences between Principals Four, Six, Seven and Eight.

Principals Two, Three, Six, Seven and Eight perceived their style adaptability as being higher than their "Others" perceived it. The mean of Style Adaptability for "Self" and "Other" was 25.9; computing "Self" only the mean was 27.2; computing "Other" only the mean was 25.4. The range of scores for "Self" and "Other" was 19-31 with the mode being 26; the median was also 26. When computing for "Self" only the range was 23-31; the mode was 28 and the median was 27.5. Computing for "Other" only, the range was 19-31; the mode was 26; the median was 25.5.

The most prevalent styles that these principals used according to their own views and the perceptions of their subordinates and superordinates were styles two and three.

According to Hersey and Blanchard (1982. p. 247) people can have a one-style profile (those who tend to use only one primary leadership style with little flexibility) up to a four-style profile (people who have a great deal of flexibility depending on the situation). Hersey and Blanchard (p. 248) also found that people with a wide range of styles, "even though their effectiveness score may be low", needed a shorter period of time to increase their effectiveness than people with a smaller range (248).

> People who are perceived as using predominately styles 1 and 3 fall into what is called the 'Theory X-Theory Y profile'...They generally view their subordinates with either Theory X or Theory Y assumptions about human nature. They see some people as lazy, unreliable, and irresponsible. The only way to get anything out of these people is to coerce, reward and punish, and closely supervise them. Other people they see very positively as creative and self-motivated; the only thing they have to do with these people is to provide socioemotional support (Hersey & Blanchard. 1982. 249).

People perceived as using styles one and four "tell" and "delegate". This leader would be effective in a crisis situation or for intervention into an organization having severe problems. However, this leader lacks "the developmental skills to take people from low levels of maturity and develop them into higher levels of maturity" (Hersey & Blanchard. 250).

Leaders perceived as using predominately styles two and three tend to work well with people of average maturity levels. They sometimes find it difficult working with immature groups or handling discipline problems. This leader tends to be effective because most work groups fall into the average maturity levels (Hersey & Blanchard. 251).

> People who are perceived as using predominately styles S1 and S2 tend to be able to raise and lower their socioemotional support or relationship behavior, but they often feel uncomfortable unless they are 'calling the shots'...This style profile tends to be characteristic of engineers who have

become supervisors of engineers but tend to be reluctant to give up their engineering...of teachers who have become administrators but who still want to be directing the activities of children...These leaders are not able to develop people to their fullest potential often (Hersey & Blanchard. 252-253).

People perceived to use mainly styles two and four seem not to feel secure unless they are giving most of the directions while they are developing a personal relationship with their subordinates. These people usually have a hard time delegating (Hersey & Blanchard. 253).

People who fall into styles three and four "tend to be able to raise and lower their socioemotional support or relationship, but they feel uncomfortable initiating structure or providing direction" (Hersey & Blanchard. 254). This style tends to be effective for top managers in organizational settings of mature, competent people. "Teachers with this profile tend to be comfortable in 'student-centered' environments..." (p. 254).

Question 5: What are the personal and professional characteristics, job-related tasks, and expectations of these female principals?

Question 6: What similarities and differences exist in the characteristics, tasks, and expectations of these principals?

There are many characteristics that describe these principals. Before looking at each individual principal Table 7 gives an over-all look at characteristics of all the principals. The table is not meant to suggest that these are the only characteristics of these principals or that characteristics suggested for one principal do not apply to all principals; simply that these specific characterictics were mentioned in conversation by either the principal, a subordinate or a superordinate in trying to describe the attributes of a specific principal.

When looking at job related task these principals value many of the same things about their jobs. They are less distracted by routine tasks and maintain focus on curriculum and instruction. Table 8 shows the percentage of time each principal spent on educational programmatic improvement per day; on community; on student related services and activities; and on building management operations and district relations. It includes the national averages obtained during a study by Smith and Andrews (1989) as well as the averages and ranges of the subjects in this study.

Table 7

Personal and Professional Characteristics of the Nine Female Principals used in this Study

Characteristic	Principal								
	1	2	3	4	5	6	7	8	9
Nurturing	*	*	*	*	*	*	*	*	*
Caring	*	*	*	*	*	*	*	*	*
Visionary	*	*	*	*	*	*	*	*	*
Optimistic	*	*	*	*	*	*	*	*	*
Independent	*	*	*	*	*		*	*	*
Risk-taking	*		*	*	*		*	*	*
Democratic (forms partnerships)	*	*	*	*	*	*	*	*	*
Good organizer	*	*	*	*	*	*	*	*	*
Good negotiator	*	*	*	*	*	*	*	*	*
Good communicator	*	*	*	*	*	*	*	*	*
Good listener	*	*	*	*	*	*	*	*	*
Personal security	*	*	*	*	*	*	*	*	*
Authoritarian				*					
Ball of fire (energetic)	*						*		
Team builder	*	*	*		*				
Motivator	*								
Analyzing	*		*						
Sensitive	*								

Table 7-- continued

Characteristic	Principal								
	1	2	3	4	5	6	7	8	9
Compassionate	*								
Protective	*								
Warm		*							
Strong		*							
Morale Builder		*							
Cheerleader		*	*						
Intelligent			*						
Attends to details/Prepared			*						
Friendly			*						
Fair			*						
Diligent/Hard working			*				*		
Punctual			*						
Loyal			*						
Academician			*						
High tolerance level			*						
Delegator				*					
Demanding				*					
Trustful/Honest								*	*
Humanistic									*
Innovative									*

Table 8

Job Related Tasks--A Comparison Among These Subjects and Strong Instructional Leader
Principals Throughout the Nation

Principal	Program Improvement	Community	Student related Services & Activities	Building Management & District relations
1	34.4	8.3	22.4	34.9
2	25	5	50	20
3	*	*	*	*
4	40	5	30	25
5	30	10	40	20
6	40	10	30	20
7	30	10	50	10
8	30	10	50	10
9	25	15	50	10
**Strong leader national average	33	8	21	38
Current study average	33.1	9.8	39.1	18.1
Current study range	25-40	5-15	22.5-50	5-34.9

*Missing data   **taken from Instructional Leadership: How principals make a difference
by Smith, W. F. and Andrews, R.L.

The biggest difference between the Smith and Andrews research and this research is in the last two categories—student related services and building management. According to the review of literature (see Ch. II) women give great emphasis on the individual differences among pupils, on the social and emotional development of their pupils, on the "deviant" pupils, and on the technical skills of teachers. Women view the job of principal as that of a master teacher or educational leader while men view it from a managerial-industrial perspective. In the comparison of student related services and activities, the mean for this study was 39.1%; for the Smith & Andrews study of strong high school instructional leader principals the mean was 21%. For building management operations and district relations the mean for this study was 18.1% while Smith & Andrews was 38%. Most high school principals are male—according to the literature they spend much time on the managerial-industrial perspective. This may account for much of the difference between this study group and the Smith & Andrews study group.

A synopsis of the personal and professional characteristics, job related tasks, and expecta-tions taken from personal interviews with the nine subjects used as the sample in this study.

Principal One: believes in involving people and working with them as a team. She sees herself as a nurturer as she works with special needs, faculty, and students. She believes that she has lots of energy, and that she is a good analyzer and problem solver. She maintains that a person in her position has to be sensitive and calm—"you would be overwhelmed if you got too frustrated". She is compassionate and protective—in speaking about a conference involving one of her assistant principals and a parent: "It made me mad, the mother was so ugly to my assistant". Along the same vein in an already hectic schedule, she takes time to call the assistant principal who had to go home sick. This showed genuine

concern for the person. She asked if the assistant wanted her to come to check on her. Principal one sees herself as a catalyst—the person who gets things stirred up. She was the prime motivator in an increased enrollment of approximately 600 students, in turning the school around from being the "step-child" of the other area high schools to being the "favored child". Her assistant principals say that she is a "ball of energy"; she is everywhere at once. This principal likes her job now, but also liked it when she was an assistant principal and before that, she liked being a teacher. She adds, "maybe one day I would like to be in the central office".

Principal Two : seems very caring and warm. As she moves through the halls during class changes she receives lots of hugs from students, some even call her "Mom". She remarks, "I have a need to feel that my presence makes a difference—I don't think I could work where it didn't". On her leadership style she quips: "it will work anywhere. You must feel the power you have and then use it to make people feel comfortable". She believes that she "reads" people well and that she is a strong person. "I don't have a choice—I am the sole provider for myself and my son." She says, "I always wanted to be a high school principal. I also want to get my Ed.D. in secondary or higher education and eventually be a college administrator." She believes that she is a good organizer and negotiator. She is a team player; she sees the whole picture while allowing her people to work on their individual details. She also sees herself as a morale builder and her school's cheerleader. She confides that she sometimes feels "super guilty" because school often takes priority over her time with her son—"I have no social life at all".

Principal Three : is very intelligent (a plaque showing membership in Phi Delta Kappa professional society is on the wall in her office) and witty: "I can swap barbs coming and going (with a well known college coach)". She has high expectations and goals for her

school. She gives attention to details and is totally prepared. She believes in being a nurturer as she gives responsibilities and authority to her faculty. She believes strongly in participatory management. She says: "I believe people think I'm friendly, fair, diligent; I hope I'm a role model for punctuality, organization and loyalty." She believes that she is an academician; she pursued degrees in chemistry and English and had interests in history and math. She sees herself as a team player and cheerleader. She claims that she did not start out to be a high school principal. She taught for 17 years then literally "moved up the ladder" to junior high school assistant principal, high school assistant principal, junior high school principal and finally high school principal. She says: "I don't want to be anywhere else, not central office...not anywhere". She exclaimed that she had been abundantly blessed with good health and a good family and that somewhere along the line she acquired a high level of tolerance for people who have differences. She has enjoyed every year in education—"I look forward to Mondays as well as Fridays—being a dedicated teacher is a great way to establish your identity". She likes quality and has an appreciation for it. One central office administrator and an assistant principal both talked about how dedicated this principal was and also that she was a great school and community leader.

Principal Four : is independent. She sees herself as being authoritarian and a delegator. She is well organized and has the ability to look at a problem and make a good decision. She sees herself as a risk-taker and quips: "it is easier to get forgiveness than permission!" She said that there was a time when she would have liked to go higher up the education ladder, but now that she is about ready to retire she says: "I have loved every minute I have been in education—now I need something different—to be 'top dog' in another area". She seems to have a wonderful ability for not letting things get to her. She is demanding but she tempers this with the ability for making her faculty feel comfortable.

Principal Five: likes partnerships; she usually includes her faculty in decision-making. She is a secure individual and also a good listener. Teachers and other staff members alike praise her as a wonderful principal, community worker, mother (she has six children and did not finish her first degree until after the last one was born), and wife. She says that she did not plan to be a principal—she was in the right place at the right time and wanted to help her family financially, so she took the job. She admits that "in a different time I would want to further my education past the Master's degree—probably in curriculum".

Principal Six: specializes in the nurturance of her teachers as leaders and in curriculum. She believes in partnerships and works closely with her teachers. She is a good listener and communicator and is not afraid of change. She believes that she is making a difference in the lives of her students. She has a concern and desire to see her students achieve. Having her own family has added to her vision of what she wants for her school. She says that she became totally frustrated in public education where she went on every possible interview just to be an assistant principal, so she moved to the private education sector. She has aspirations of maybe one day being a school superintendent or at least a supervisor in the area of math.

Principal Seven: nurtures her students and faculty as she works together with them to build an excellent environment for an excellent school. She did her homework when it came to faculty selections and claims that they all are very intelligent and work well either individually or in group settings. She credits the influence of her father (also a principal) and mother (who had "stickability") for being where she is. She is a "ball of fire" who has "a faculty full or 'balls of fire'." She quips: "I have the ability to keep them too". She sees herself as a risk-taker who involves students so that the curriculum can "come alive". She has taken her students to places like Europe and Mexico. She does not mind the hard work

as long as it is worthwhile. In her future she sees applying to the next level up the educational ladder: she would like to be an administrative assistant in charge of an entire campus—elementary, middle and high school.

Principal Eight: this principal says that she is not comfortable with the boss-subordinate relation so she empowers her people. She is a good listener and has the ability to make people feel comfortable in what they are doing. She believes that trust is an essential part of her relationship with her faculty. She would rather "be safe", but at times she is a risk-taker. She constantly has to fight against being a "workaholic". She remarked that she did not seek to be a high school principal—she just wanted to be a good teacher and involved in academics. When she was assistant principal however, she knew that she wanted to be principal. When asked if she had any aspirations to other jobs, she quips:

> It depends on what day you ask me! Some days, yes—others, I don't know.
> Women have problems with this especially if they are married. I would have
> to move—I don't see my husband picking up and moving for a promotion
> for me.

Principal Nine: is a strong nurturer. She likes to spend time helping people grow. She believes in shared decision-making processes as she empowers parents, teachers and students. She must be doing something right for she has had two schools of excellence! She believes in total honesty and also in being humanistic and caring. She is innovative and claims that she loved every avenue of education. She loved teaching but decided that she could have a greater impact and make more of a difference as a principal. She has worked very hard—served on many committees—worked long hours because she feels that she constantly had to prove herself because she was a woman. She is confident and secure. She credits her mom for this because her mom was always there, but at the same

time not afraid to let her daughter make mistakes and grow from them. She has a vision of all schools being "humanized". Her aspirations include working in the business world and teaching on the college level. She would like to share her experiences and philosophy.

All of these principals are visionary even though they differ in their visions.

Principal One: "I want my kids to be academically successful no matter what race, creed or ethnic group."

Principal Two: "I want to double the size of my school so that we can admit some at-risk students as day students. To do this I need to be able to offer scholarships—the courts now pay for most of the students who are here. It cost $84 per day."

Principal Three: "I want to have 25 med scholars in one year with 90 per cent of my students going on to college. I want a national forensic candidate, to win the national Century Three and be state winners in athletics—for me, I'd like to lose a few pounds."

Principal Four: "I want to expand the school—add more college level courses. I want my students to be brighter than they already are."

Principal Five: "I want to increase enrollment so that we can offer more courses."

Principal Six: "I want to develop programs to challenge each student to perform to her best—especially in the area of science."

Principal Seven: "I want my school to be a good school—that sounds too simple. I want a school where learning is exciting, fun, and a little different."

Principal Eight: "I want my school recognized as being strong academically but also as nurturing. I want a place where everyone works really hard and everyone cares about the kids."

Principal Nine: "Even though my school is an academic college preparatory school, we are not well-rounded. My students aren't getting into the Naval Academy or West Point because we didn't have an athletic program. I've started one, and my vision is to excell in athletics as well as academics."

All principals felt that they were nurturers and empowered their faculties through partnerships. However, Principal Four did not feel that she was a nurturer all the time. All felt that they were risk-takers even though Principal Eight did not especially feel comfortable with the role.

Only Principal Two set out to be a high school principal. All others thought at one time or another that they would like to move up the education ladder. However, Principal Three says that after 37 years, she is happy where she is; Principals Four and Nine believe that they would like to try an avenue other than education for a while; Principal Five just retired; and Principal Eight feels that to get a promotion would mean a move and her family is not ready for that.

Question 7: What mental processes do these principals use as revealed by the Brain Dominance Survey by Herrmann?

Question 8: How do the individual mental processes help each principal as a leader?

Table 9 presents the dominance codes for the nine subjects in this study. Although most of the subjects have slightly different brain dominance codes, two codes emerge as prevalent: two subjects had a code of 1112 and two subjects had a code of 1211. Both of these codes are right-brain or holistic in nature. Eleven per cent of the principals in the Norris study (1984) had a brain dominance code of 1112 and one percent of the principals in her study had a dominance code of 1211.

Table 9

Brain Dominance of Female Principals in Schools of Excellence

n=9

Principal	Brain Dominance Code
One	1111
Two	1221
Three	1112
Four	1211
Five	1122
Six	1112
Seven	2121
Eight	1212
Nine	1211

Herrmann tests scored by C. Norris, University of
Houston, a certified trainer in the Herrmann
processes.

Further comparisons of these dominance codes with the Norris study (1984) revealed that Principal Five with a dominance code of 1122 corresponds to the most prevalent pattern of a total group of nominated administrators from her study. Principal One with a dominance code of 1111 corresponds to the third most prevalent pattern from her study. From the Norris study (1984), nominated superintendents as a group had a dominance pattern of 1122; principals, a dominance pattern of 1121; supervisors, a dominance pattern of 1111, and random sample superintendents a dominance pattern of 1122.

Data were further analyzed and a group dominance code of the nine principals was plotted in Figure 12; Figure 13 shows the dominance profile of all supervisors from the

Norris study; and Figure 14 shows the dominance profile of all the principals in the Norris study. From the group plots in Figure 12 it was found that the subjects in this study had a group dominance code of 1111; this corresponded to the Norris study group dominance code of supervisors (there were more females in this group than any of the others for the Norris study). Norris' principal group (all male) had a dominance code of 1121 with a strong dominance in the lower left quadrant. In comparison with this study's principal group, the lower left quadrant had the least dominance. The individual plot of each subject in this study is found in Appendix J.

Figure 15 compares the composite brain dominance codes of this study's subjects with the superintendents of the Norris study; Figure 16 compares the composite brain dominance codes of this study with the supervisors in the Norris study; and Figure 17 compares the composite brain dominance codes of this study with the principals in the Norris study. The most pronounced difference in Figure 15 is found in the lower left quadrant represented by controlled, organized, conservative thought processes. The superintendents from the Norris study scored highest here while the principals from this study scored least.

The same difference held true for Figure 16. When comparing this study with the supervisors in the Norris study—the supervisors highest score was also found in the lower left quadrant. However, this profile did not represent as pronounced a difference as with superintendents. Both the principals in this study and the supervisors from the Norris study had a higher mean score in right-brain dominance; they both had a higher capacity to conceptualize than the superintendents from the Norris study.

Although Figure 17 shows a marked dominance by the Norris principal group for the lower left quadrant, the principals in this study have slightly higher scores in the cerebral left quadrant. Both of these groups have the advantage of a strong conceptual component in the upper right quadrant also.

A study by Coulson and Strickland (1984) compared the dominance patterns of Chief Executive Officers (CEOs) in relation to school superintendents. Results showed the CEOs were more balanced in both cerebral hemispheres than the superintendents and also used the right hemisphere to a greater extent than did the superintendents. Figure 18 gives the comparisons for their study. According to Coulson, the key descriptors for the CEOs were logical and creative; for the superintendents it was only logic (Coulson and Strickland. 1984. 24).

Figure 19 gives a composite plotting for the principals in this study, the principals in the Norris study and the CEOs in the Coulson and Strickland study. The principals in this study are more closely aligned with the CEOs of the Coulson and Strickland study than with the principals of the Norris study.

Figure 12

CEREBRAL
LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

CEREBRAL

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER
LEFT

DOMINANCE PROFILE

LIMBIC

Interpersonal
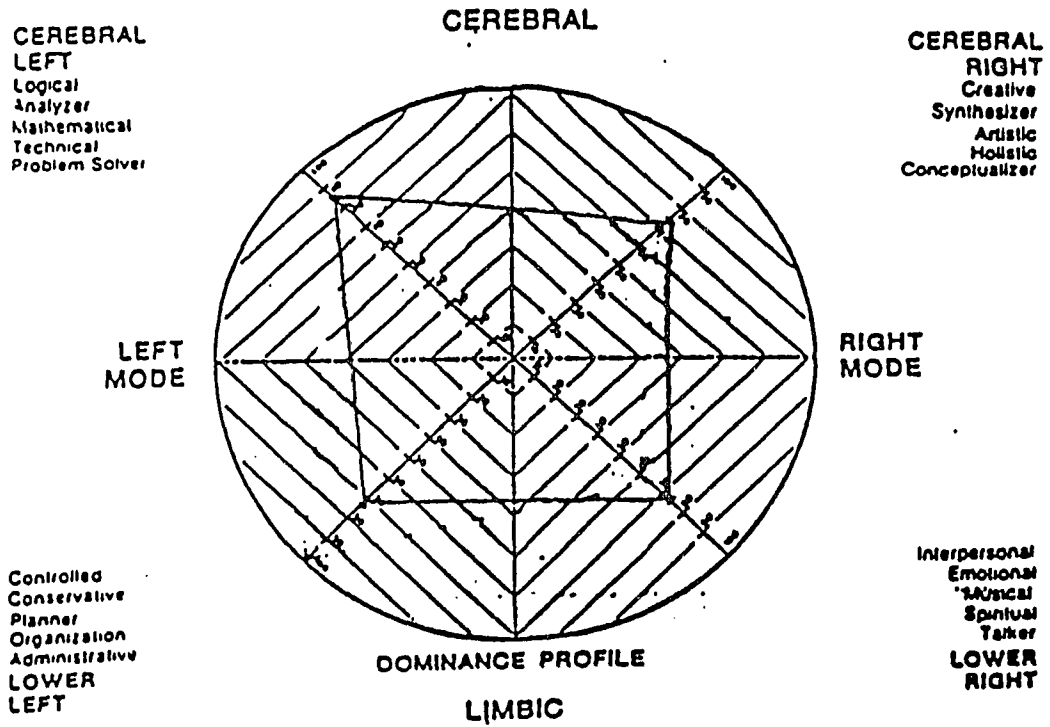Emotional
Musical
Spiritual
Talker
LOWER
RIGHT

Figure 12 Code: 1111—Principal's Dominance Code For this Study.
Source: Data from Herrmann Instrument and verified via a telephone
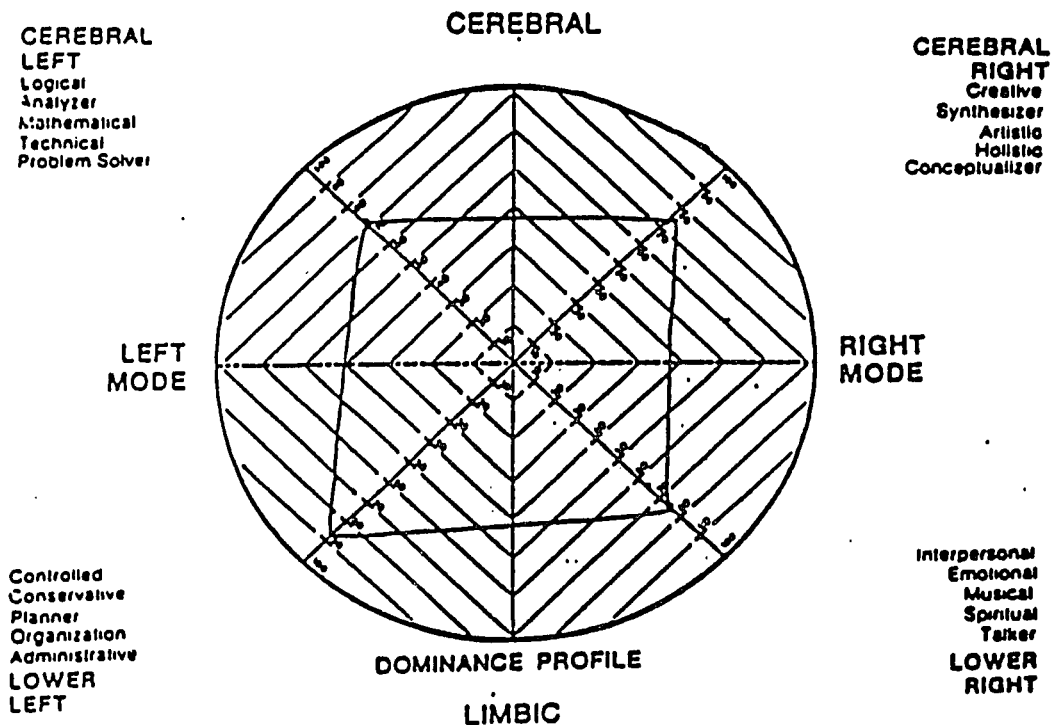conversation with Norris (1990)

Figure 13

Figure 13 Code: 1111—Supervisor's Dominance Code (n=37).
Source: Norris (1984. p. 86)

Figure 14

CEREBRAL
LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

CEREBRAL

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER
LEFT

DOMINANCE PROFILE

LIMBIC

Interpersonal
Emotional
Musical
Spiritual
Talker
LOWER
RIGHT
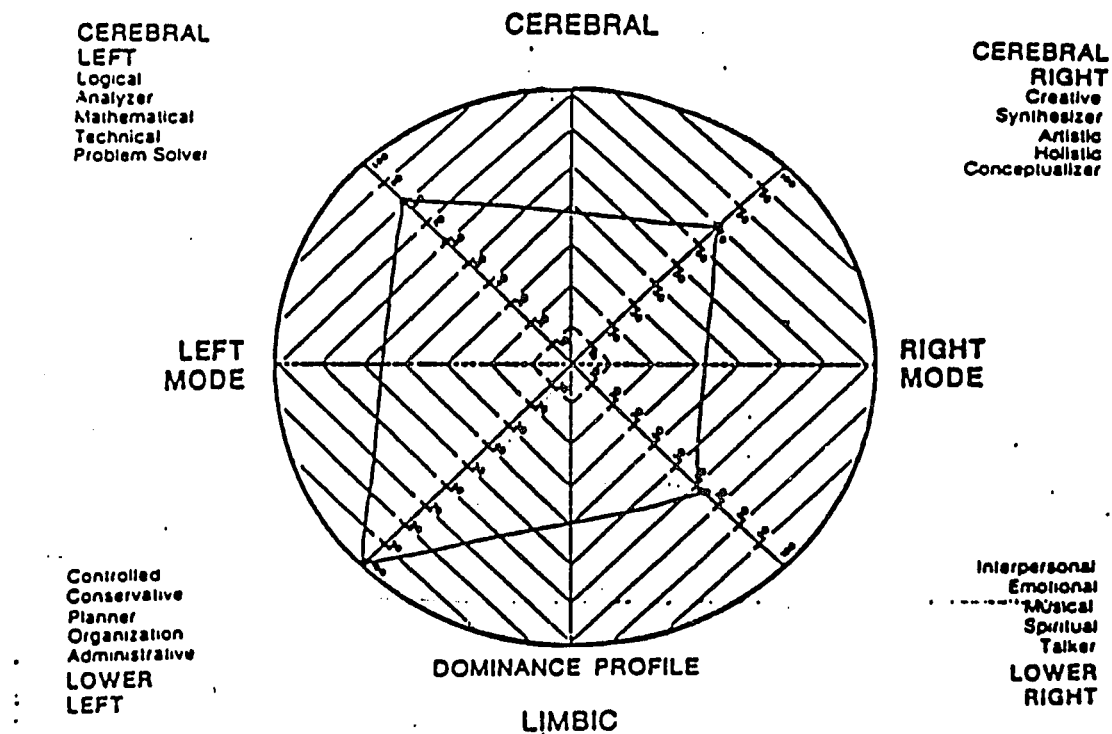
Figure 14 Code: 1121—Principal's Dominance Code.
Source: Norris (1984. p. 85)

Figure 15

CEREBRAL
LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

CEREBRAL

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER
LEFT

DOMINANCE PROFILE

LIMBIC

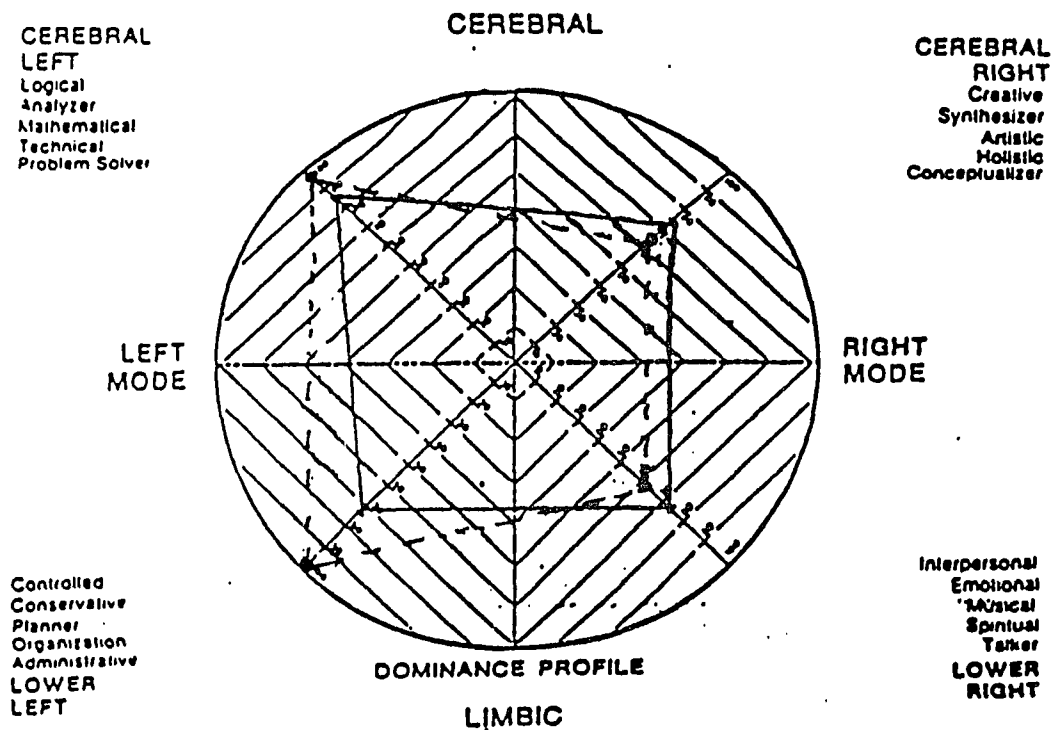Interpersonal
Emotional
Musical
Spiritual
Talker
LOWER
RIGHT

Figure 15 Code: 1111 Principal's Dominance Code from this Study
Superimposed on Code 1122 Superintendent's Dominance Code from
Norris Study.
Principal's Code _____
Superintendent's Code ----------------

Figure 16

CEREBRAL

CEREBRAL
LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER
LEFT

Interpersonal
Emotional
Musical
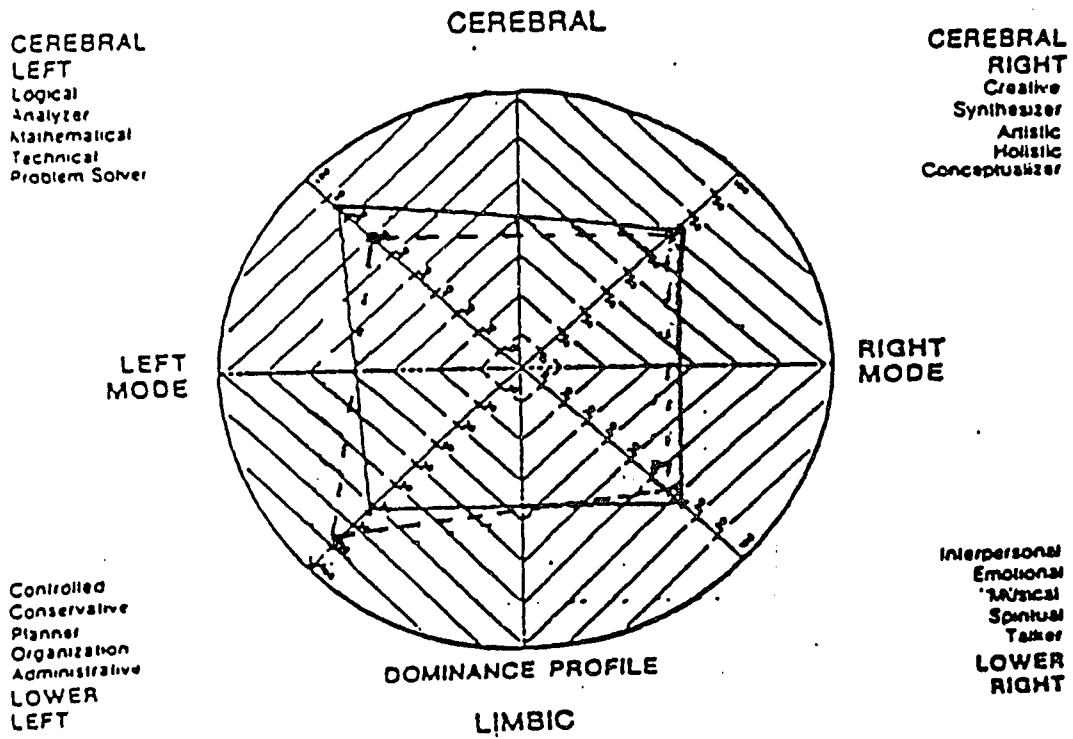Spiritual
Talker
LOWER
RIGHT

DOMINANCE PROFILE

LIMBIC

Figure 16 Code: 1111 Principal's Dominance Code from this Study
Superimposed on Code 1111 Supervisor's
Principal this study _____
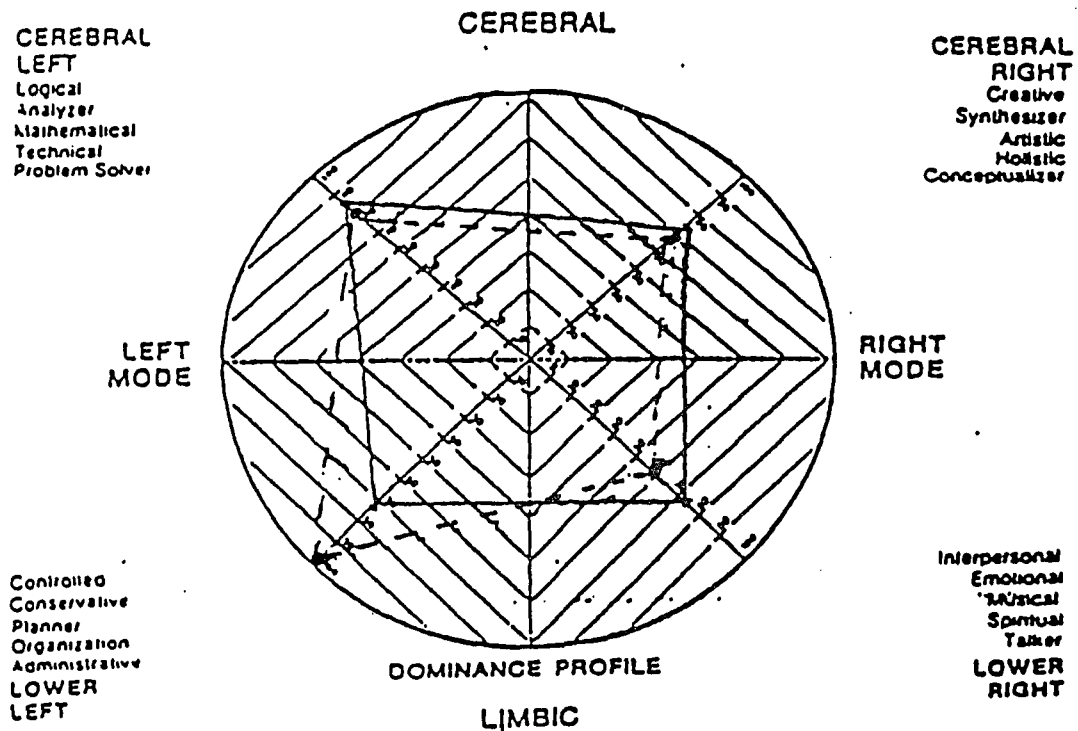Supervisor Norris Study --------------

Figure 17

Figure 17 Code: 1111 Principal's Dominance Code from this Study
Superimposed on Code 1121 Principal's Dominance Code from Norris
Study.
Principal this study _____
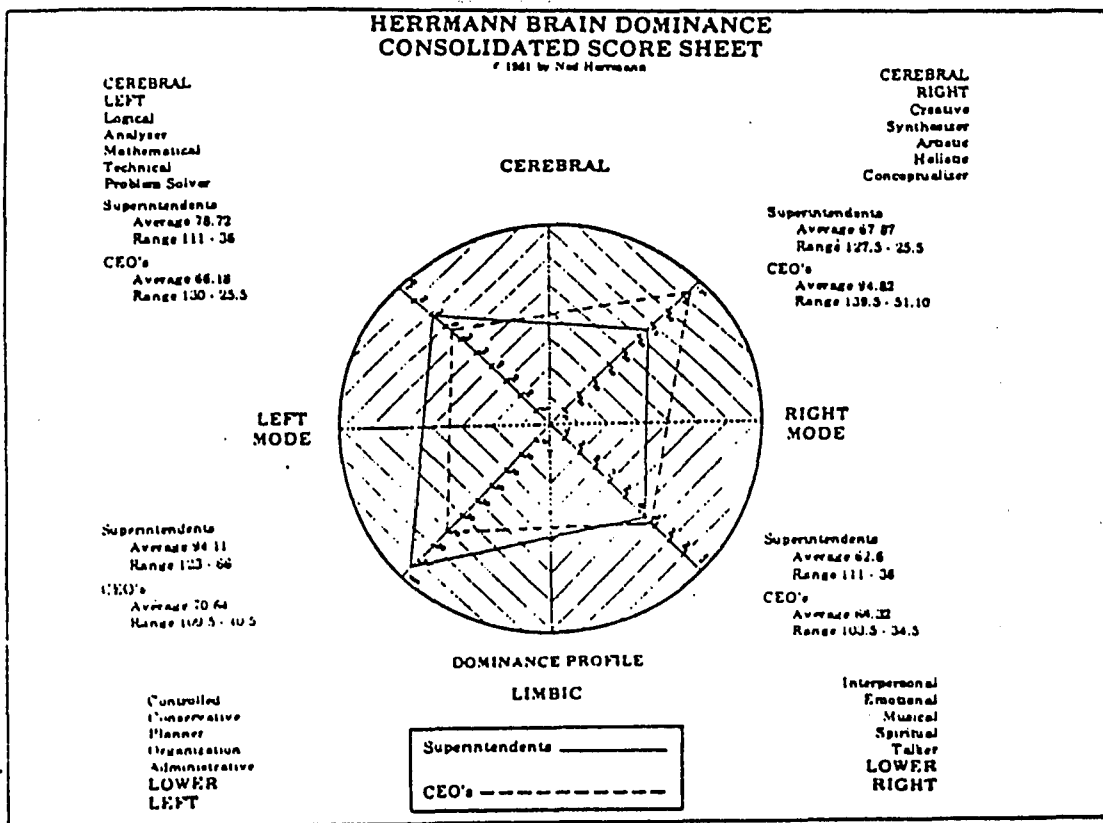Principal Norris Study ----------------

Figure 18

Figure 18 Comparison of Brain Dominance of Chief Executive Officers with School Superintendents.
Source: Louis T. Coulson and Alison G. Strickland. "A Comparison of the Thinking Style Preferences of Superintendents of Schools and Chief Executive Officers, " International Brain Dominance Review . Brain Dominance Institute, Lake Lure, N.C., Winter 1984, Vol. 1, Number 1, pp. 23-26.

Figure 19

CEREBRAL
LEFT
Logical
Analytical
Mathematical
Technical
Problem Solver

CEREBRAL

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER
LEFT

Interpersonal
Emotional
Musical
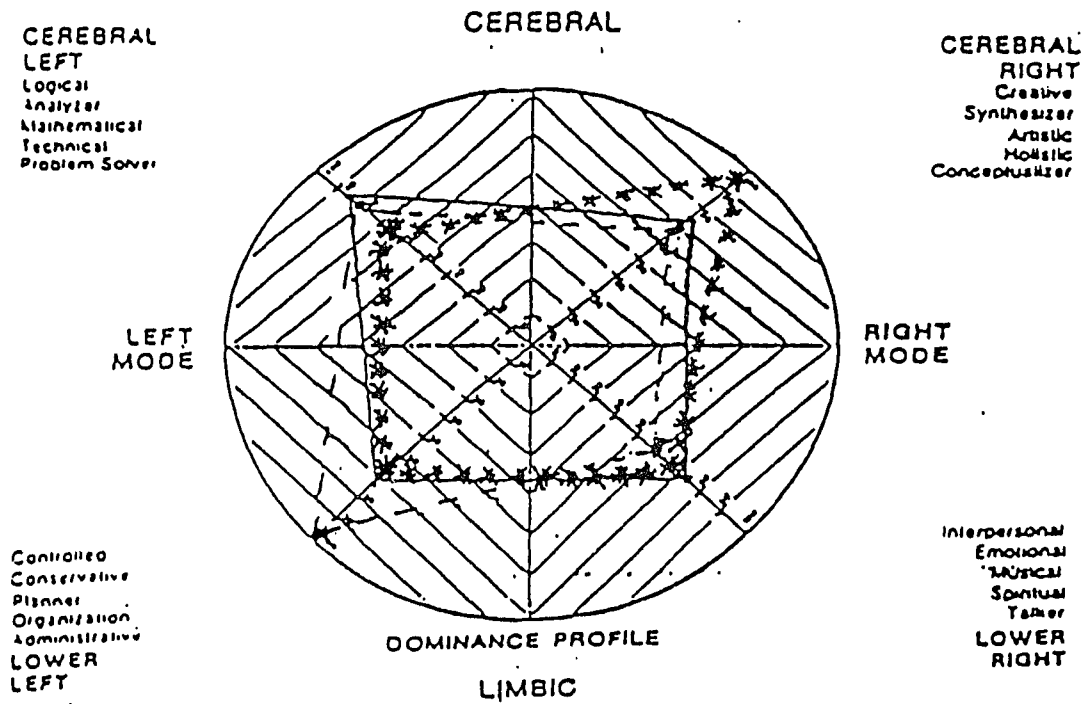Spiritual
Talker
LOWER
RIGHT

DOMINANCE PROFILE

LIMBIC

Figure 19 Code : 1111 Principal's Dominance Code from this Study Superimposed on Code 1121 Principal's Dominance Code form Norris Study and also CEOs from the Coulson/Strickland Study

Principals this study _____
Principals Norris Study ---------------
CEOs Coulson and Strickland Study ************

For this study, Principals One, Three and Six are represented by the whole-brained code; Principals Two, Four, Seven and Nine are represented by the holistic code which is characterized by strong conceptual ability represented in the upper right quadrant; and Principals Five and Eight are represented by the lower left limbic mode which is

characterized by strong organizational and administrative skills. Of the principals in this study, 78 per cent are holistic or whole-brained and 22 per cent are left-brained/limbic. Table 10 gives a comparison between percentages in this study with the Norris study.

Table 10

A Comparison of Whole/Right-Brain vs Left-Brain Dominance Percentages between Subjects in this Study with Subjects in the Norris Study

Subjects	% Whole/Right-Brained	% Left-Brained
Principals		
this study	78	22
Nominated Superintendents		
Norris study	48	52
Random Superintendents		
Norris study	33	67
Principals		
Norris study	59	41
Supervisors		
Norris study	63	37

In comparing the data of Table 10, the Norris study (1984) found 48 per cent of the nominated superintendents had a whole-brained style in contrast to only 33 per cent of the

random sample superintendents. For principals, Norris found a ratio of 59 per cent holistic or whole-brained to 41 per cent left-brained; for supervisors it was 63 per cent and 37 per cent respectively (Norris, 1984. 89). As previously stated, the all-female subjects of this study had a higher percentage of whole-brained style at 78 per cent.

When looking at the mental processes these principals use, Principals One, Three and Six can start the thinking process in any quadrant of the brain since they use each quadrant well. Depending on the situation, they could use a logical, analytical thought process; a sequential, planned, organized thought process; an emotional, interpersonal, feeling process; or a holistic, intuitive process. Principals Two, Four Seven and Nine are also able to use any of the quadrants, however, they are more likely to use a holistic, intuitive, synthesizing thought process. Principals Five and Eight's thinking process will be planned, organized, detailed and sequential.

Principals One, Three and Six can enter the decision-making process knowing they can use verbal or non-verbal, fact based or feeling, controlled or open minded, and structured or experiential procedures and processes. Principals Two, Four, Seven and Nine can use all of the previously mentioned procedures or processes but will probably rely more on open mindedness using visual, conceptual or simultaneous procedures and processes in their decision-making. Principals Five and Eight will probably use organized, sequential, procedural control in their decision-making process.

Question 9 : How are the career paths of these successful female principals of schools of excellence similar and different?

Data to answer this question came from two sources: the demographic information on the questionnaire and information generated directly from interviews or direct questions about career paths and expectations. Data from the questionnaire (see Appendix E) were compiled with the results in Table 11.

===

Table 11

Demographic Data for the Principals in Schools of Excellence

n=9

Numbers of years in education as an administrator

Range--2-20 years
Mode---- 9 years
Median-- 9 years
Mean---- 9.7

Size of the School System

1- 5,000 students--3 principals
5,001-10,000 students--1 principal
20,001 and above--------5 principals

Your highest Degree Completed

Masters-----3 principals
Sixth Year--5 principals*
Doctorate---1 principal

*three are currently working on doctorates

Type of Community You Work In

Suburban----4 principals
Urban-------3 principals
Inner City--1 principal
Rural ------1 principal

Table 11--continued

Age You Are Now

Range---38-60
Mode----48
Median--47.5
Mean----49.4

Age Subjects Entered Administration

Range---32-50
Mode----38
Median--40
Mean----39.8

Marital Status

Married---4 principals
Single----2 principals
Divorced--1 principal
Widow-----2 principals

Number of Children

Range---0-6
Mode----2
Median--3.5
Mean----2.6

Age	Now	When entered Adm.
Range	38-60	32-50
Mode	47,48	37,40
Median	47.5	39
Mean	49.4	40.3

==

The career paths of these principals are as follows:

Principal One: English teacher, guidance counselor, part-time assistant principal—high school, assistant principal—high school, middle school principal, high school principal

Principal Two: elementary teacher, high school teacher, guidance counselor, junior-high teacher; high school teacher; principal in private school

Principal Three: English teacher, junior-high assistant principal, high school assistant principal, junior-high principal, high school principal

Principal Four: high school teacher, assistant principal for academic programs, high school principal

Principal Five: high school math teacher to principal in secondary Catholic school

Principal Six: junior-high science and math, elementary Title I math, high school math district consultant, assistant principal, principal in a private school

Principal Seven: high school English teacher, high school guidance counselor, high school principal

Principal Eight: part-time teacher, high school math teacher, assistant high school principal, high school principal

Principal Nine: high school teacher, dean of students, assistant principal, junior-high principal, high school principal, district position, principal of magnet high school

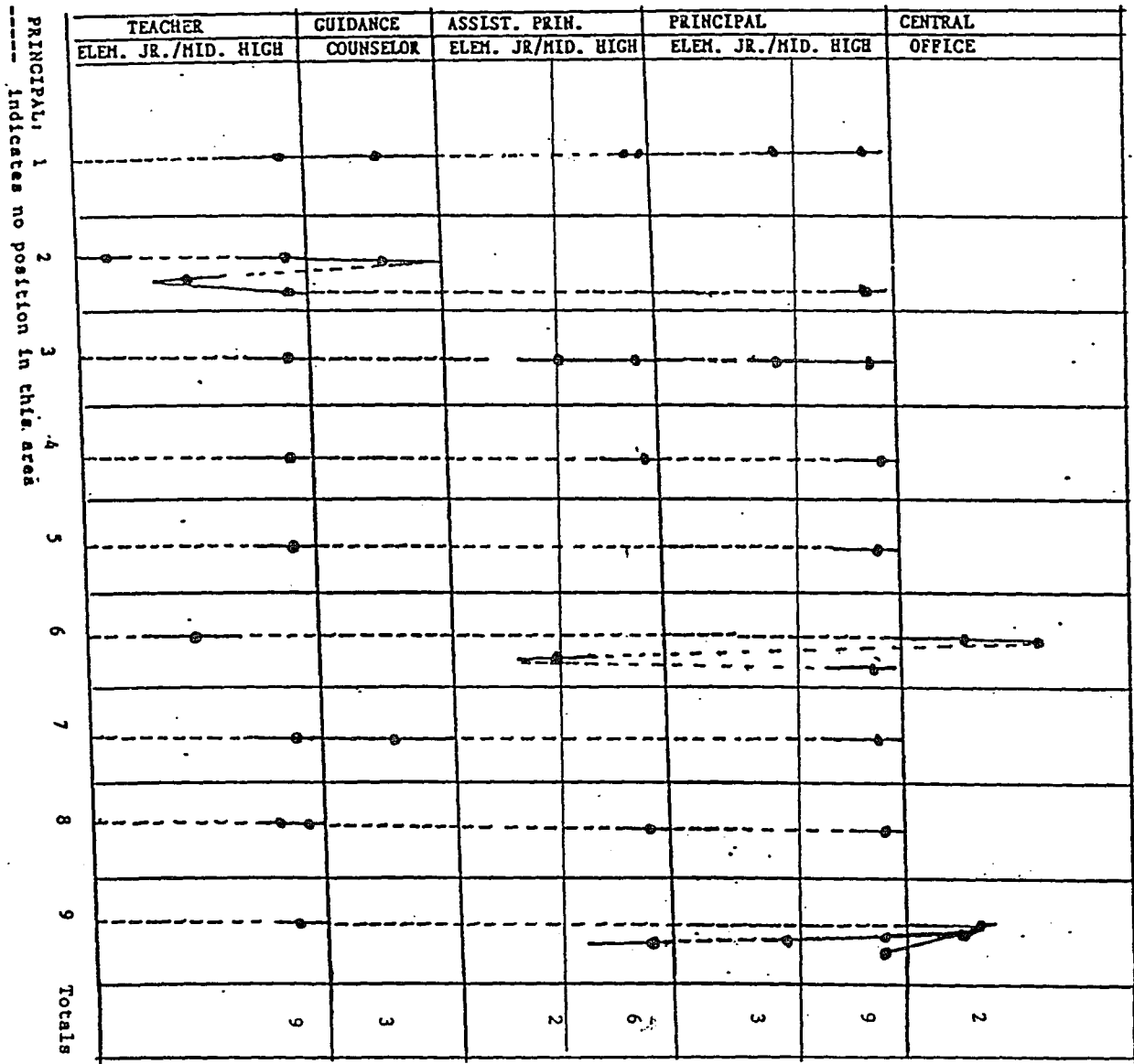Figure 20 illustrates the career path data in a line graph.

CAREER PATHS

TEACHER		GUIDANCE	ASSIST. PRIN.		PRINCIPAL		CENTRAL
ELEM.	JR./MID. HIGH	COUNSELOR	ELEM.	JR/MID. HIGH	ELEM.	JR./MID. HIGH	OFFICE

Totals: 9   3   2   6   3   9   2

PRINCIPAL: 1 2 3 4 5 6 7 8 9

---- indicates no position in this area

FIGURE 20--CAREER PATHS OF THE NINE SUBJECTS

Only Principal Five went from being a teacher to a principal in a private high school. All the other principals had line administrative positions (either guidance counselor and/or assistant principal) which led to the principalship. Principals Two and Seven went from being guidance counselors to the principalship; Principals One, Three, Six, Eight and Nine went from teacher to at least one assistant principalship before becoming a principal. The average career path seems to be teacher, assistant principal (not in a high school), principal (not in a high school), principal (high school).

From the interviews, data show that some reasons these subjects decided to become high school principals include:

> I wanted to make a meaningful contribution; I had the knowledge and leadership skills to affect learning challenges; I wanted the authority to make needed changes; I wanted to demonstrate the integration of managerial skills, organizational skills and people-involvement skills; I wanted to fulfill a need; I wanted to utilize my ability as an effective leader; I wanted to be a part of the education of our youth and their future; I wanted to have more input in decision-making.

Question 10: Does the LBDQ, with its reliability/validity and norming on all male subjects, seem to work equally well with these nine female principals as with male subjects?

Question 11: What is the correlation between raw scores on the Brain Dominance Survey and raw scores on the Leader Behavior Description Questionnaire?

The data found in Table 12 represents the raw scores of each individual principal's Leader Behavior Description Questionnaire. The final column represents the mean on each sub scale of the questionnaire.

Standard deviations were also computed for each sub scale. The mean and standard deviations of the female leaders were added to the data found in the LBDQ manual for various male leader groups. This is found in Table 13.

Table 12

LBDQ Raw Scores and Means for Each Sub Scale

==

Principal:	1	2	3	4	5	6	7	8	9	Mean

Sub Scale

Sub Scale										
Representation *		21	22	21	22	21	21	22	19	21.1
Demand										
Reconciliation *		22	21	20	19	20	16	18	19	19.4
Tolerance of										
Uncertainty *		33	42	43	38	35	26	32	37	35.8
Persuasion *		46	41	34	39	40	42	35	39	39.5
Initiating										
Structure *		42	43	42	45	43	37	42	34	41
Tolerance of										
Freedom *		38	42	42	44	41	38	39	43	40.9
Role Assumption*		42	42	41	40	40	39	38	41	40.4
Consideration *		44	41	42	45	41	44	38	46	42.6
Production										
Emphasis *		34	33	28	40	37	37	33	31	34.1
Predictive										
Accuracy *		17	18	19	20	20	19	20	20	19.1
Integration *		20	18	21	19	20	20	18	20	19.5
Superior										
Orientation *		43	34	33	41	45	41	40	41	39.8

* Missing data

Table 13

Means and Standard Deviations for the LBDQ

Subscale	Army Division		Highway Patrol		Aircraft		Ministers		Community Leaders		Female Principals	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1. Representation	29.0	3.0	19.9	2.8	19.8	2.8	20.4	2.4	19.6	2.4	21.1	1.0
2. Demand Reconciliation					19.2	2.8	19.8	3.1	19.7	3.3	19.4	1.9
3. Tolerance Uncertainty	36.2	4.7	35.6	4.6	33.2	6.2	37.5	6.3	37.7	5.6	35.8	5.6
4. Persuasiveness	38.3	6.2	37.9	5.9	36.5	5.5	42.1	4.7	39.5	5.5	39.5	3.8
5. Initiating Structure	38.6	5.7	39.7	4.5	36.6	5.4	38.7	4.9	37.2	5.7	41.	3.6
6. Tolerance Freedom	35.9	6.5	36.3	5.3	38.0	5.9	37.5	6.0	36.4	5.0	40.9	5.3
7. Role Assumption	42.7	6.1	42.7	5.3	40.9	5.6	41.5	5.4	39.8	5.6	40.4	1.4
8. Consideration	37.1	5.6	36.9	6.5	37.1	5.8	42.5	5.8	41.1	4.7	42.6	2.5
9. Production Emphasis	36.3	5.1	35.8	5.7	36.1	5.6	34.9	5.1	35.4	6.8	34.1	3.8
10. Predictive Accuracy	18.1	2.1	17.8	2.1	19.2	2.6	20.5	2.3	19.8	2.5	19.1	1.1
11. Integration	19.5	2.6	19.1	2.7							19.5	1.1
12. Superior Orientation	39.9	4.9	39.1	5.1	38.6	4.2					39.8	4.2

Source: Manuel for the Leader Behavior Description Questionnaire p. 9

Means and Standard Deviations (continued)

Subscale	Corporation Presidents		Labor Presidents		College Presidents		Senators	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
1. Representation	20.5	1.8	22.2	2.2	21.4	1.9	20.7	2.5
2. Demand Reconciliation	20.6	2.7	21.5	3.2			20.7	3.5
3. Tolerance Uncertainty	35.9	5.4	40.4	5.6	37.2	5.5	35.3	7.6
4. Persuasiveness	40.1	4.2	43.1	4.8	41.1	4.2	42.5	4.6
5. Initiating Structure	38.5	5.0	38.3	5.6	37.7	4.2	38.8	5.5
6. Tolerance Freedom	35.9	4.9	38.0	4.0	39.6	3.9	36.6	6.2
7. Role Assumption	42.7	3.5	43.3	5.5	43.5	4.5	41.0	5.7
8. Consideration	41.5	4.0	42.3	5.5	41.3	4.1	41.1	5.9
9. Production Emphasis	36.9	4.4	36.0	5:0	36.2	5.0	41.2	5.2
10. Predictive Accuracy	20.1	1.8	20.9	2.0				
11. Integration								
12. Superior Orientation	43.2	3.1			42.9	2.9		

Source: Manuel for the Leader Behavior Description Questionnaire p. 10

The data in Table 13 show that female leaders in this study are lower in role assumption (only community leaders have a lower mean than the subjects in this study), production emphasis and demand reconciliation than any of the groups of males; however, they are higher in both initiating structure and consideration than any of the norming groups.

Even though the "n" in this study is small, to help show the differences between the female leader group and the various male leader groups, a chi square was computed. Using the rationale that the expected mean should be the total group mean of the male groups involved in the first study using the LBDQ, and the observed mean is the female group observed in this study, the data yielded a chi square of 1.04; with eleven degrees of freedom $\alpha=.05=19.675$. The small value of x^2 represents the relatively small difference between the observed and the expected means (this is also evident because n is so small). According to this anaylsis, there is no statistically significant difference between the mean of female principals and the mean of the statistical test group of male leaders on each sub scale of the LBDQ.

The data in Table 14 give further comparisons between the female subjects in this study and the male norming group for the LBDQ using the standard error of measurement.

Table 14

A Comparison of the Female Subjects in this Study with the

Male Norming Group for the LBDQ

===

Sub scale	Female Principals Mean	Male Norming Group Mean	SE$_m$ Norming Group	95% Confidence Interval Male Norming Group
Representation				
	-21.13	20.5	.65	19.2-21.8
Demand Recon.				
	19.38	20.25	.72	18.8-21.7
Tolerance Uncer.				
	35.75	36.56	.78	35.0-38.1
Persuasiveness				
	39.5	40.12	.8	38.5-41.7
Initiating Struc				
	41.0	38.23	.76	36.7-39.7
Tol. Freedom				
	40.88	37.47	.76	36.0-39.0
Role Assump.				
	40.38	42.01	.77	40.5-43.5
Consideration				
	42.63	40.1	.81	38.5-41.7
Production Emp.				
	34.13	36.76	.68	35.4-38.2
Predictive Acc.				
	19.13	19.49	.81	17.9-21.1
Intergration				
	19.5	19.3	.76	17.8-20.9
Superior Orient.				
	39.75	40.74	.69	39.3-42.1
Totals:	393.13	391.52	8.99	
Averages:	32.8	32.6	.8	31.0-34.2

===

In comparing these data, all the means for the principals in each sub scale are contained within the confidence intervals of the norming group except for the sub scales Initiating Structure, Tolerance of Freedom, and Consideration for which the female group had a higher mean; and also in the sub scales Role Assumption and Production Emphasis in which the female group had a lower mean. The difference observed could be due to measurement error. However, in the review of literature Heller (1982. 62) suggested that the feminine leadership qualities included sensitivity, democracy, and humanity. This could account for the higher scores found in this study on Initiating Structure, Tolerance of Freedom, and Consideration. The fact that the subjects in this study are collaborators rather than authoritarians could account for their lower scores on Role Assumption and Production Emphasis. Educators are praised and admired by co-workers for demonstrating sensitivity, democracy and humanity.

When making comparisons among the subjects within this study, Table 15 shows the individual raw scores for each sub scale of the LBDQ.

Table 15

A Comparison of the Individual Raw Scores on the LBDQ for the Subjects in this Study

===

Subscale Principal:	1	2	3	4	5	6	7	8	9
Representation	*	21	22	21	22	21	21	22	19
Demand Recon.	*	22	21	20	19	20	16	18	19
Tolerance Uncer.	*	33	42	43	38	35	26	32	37
Persuasiveness	*	46	41	34	39	40	42	35	39
Initiating Struc	*	42	43	42	45	43	37	42	34
Tol. of Freedom	*	38	42	42	44	41	38	39	43
Role Assump.	*	42	42	41	40	40	39	38	41
Consideration	*	34	41	43	45	41	44	38	46
Production Emp.	*	34	33	28	40	37	37	33	31
Predictive Acc.	*	17	18	19	20	20	19	20	20
Integration	*	20	18	21	19	20	20	18	20
Superior Orient.	*	43	34	33	41	45	41	40	41

*Missing data

===

In comparing the data from Table 15, the three sub scales Representation (speaking and acting as the group representative); Predictive Accuracy (exhibiting foresight and ability to predict outcomes accurately); and Integration (maintaining a closely knit organization; resolving inter-member conflicts) contained the closest alignment of scores—only three points separated the lowest from the highest score in each sub scale. The largest

discrepancy of scores occurred in the sub scale Tolerance of Uncertainty (the ability to tolerate uncertainty and postponement without anxiety or upset).

To test the correlation between the raw scores on the Brain Dominance Survey and the raw scores on the LBDQ, a Pearson r was computed. Again, because "n" is so small, these data are not placed within a table. Using the Pearson r deviation formula, r_{xy} was found to be +.64. This computation reveals a moderate positive correlation between raw scores on the Brain Dominance Survey and the raw scores on the LBDQ.

Table 16 gives another comparison using the scores from the Brain Dominance Survey and the LBDQ.

Table 16

Comparison of Raw Scores from the Brain Dominance Survey and the LBDQ for Each Subject

```
===========================================================
Principal One   Missing Data
===========================================================
```

Principal Two	Raw Score	Mean	SD	z	T
LBDQ	402	394.63	11.4	.65	56
Brain Dominance	200	202.00	5.26	-.38	46

Principal Three	Raw Score	Mean	SD	z	T
LBDQ	398	—————		.3	53
Brain Dominance	208	—————		1.5	65

Principal Four	Raw Score	Mean	SD	z	T
LBDQ	396	—————		.12	51
Brain Dominance	199	—————		-.57	44

Principal Five	Raw Score	Mean	SD	z	T
LBDQ	412	—————		1.5	65
Brain Dominance	203	—————		.19	52

Principal Six	Raw Score	Mean	SD	z	T
LBDQ	403	—————		.73	57
Brain Dominance	209	—————		1.33	63

Principal Seven	Raw Score	Mean	SD	z	T
LBDQ	381	—————		-1.2	38
Brain Dominance	201	—————		-.19	48

Principal Eight	Raw Score	Mean	SD	z	T
LBDQ	375	—————		-1.7	33
Brain Dominance	191	—————		-2.09	29

Principal Nine	Raw Score	Mean	SD	z	T
LBDQ	390	—————		-.41	46
Brain Dominance	202	—————		0.00	50

When comparing T scores with a mean of 50 and a SD of 10, Principals Three, Five and Six are all above the mean on both the raw scores on the <u>LBDQ</u> and the <u>Brain Dominance Survey</u>; Principals Seven and Eight are below the mean on both scores; Principals Two and Four have one score above the mean and one score below the mean; and Principal Nine has one score below the mean and one score on the mean. The more the consistency, the higher the association of scores.

The raw scores in Table 16 are represented in the scatterplot in Figure 21. It also shows a moderate positive correlation between raw scores on the <u>LBDQ</u> and raw scores on the <u>Brain Dominance Survey.</u>

Figure 21 : Scatterplot Illustrating Relations Between the LBDQ Raw Scores (Y) and the Brain Dominance Survey Raw Scores (X)
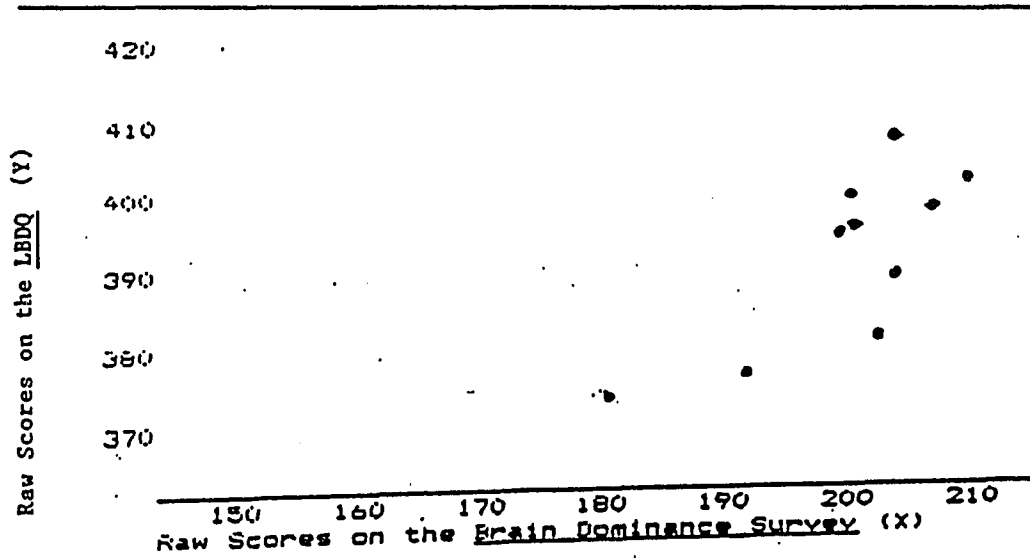
Figure 22 plots the z scores from Table 16 on the normal curve. It shows that for the LBDQ five principals scored above the mean while three scored below the mean. For the Brain Dominance Survey three principals scored above the mean, one scored on the mean and four scored below the mean.

FIGURE 22 : THE UNIT NORMAL DISTRIBUTION OF z SCORES
ON THE LBDQ FOR SUBJECTS IN THIS STUDY
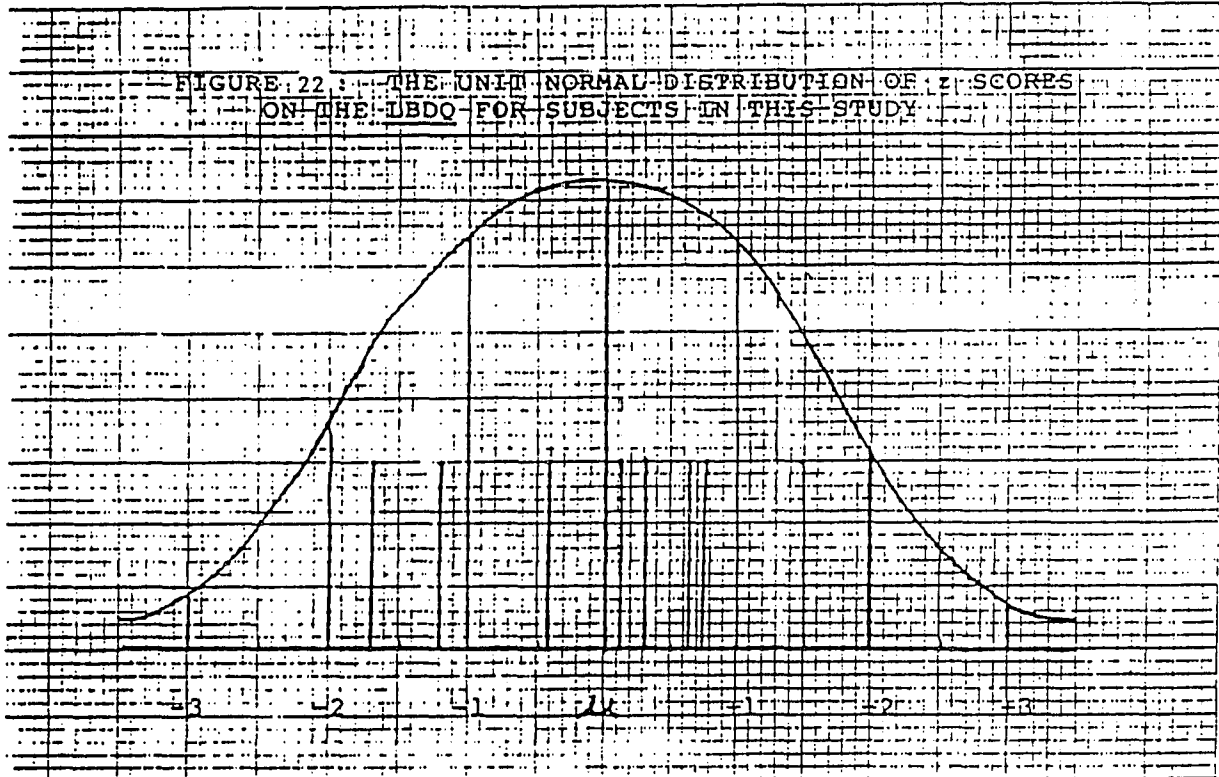
THE NORMAL DISTRIBUTION OF z SCORES ON THE HERRMANN
BRAIN DOMINANCE SURVEY
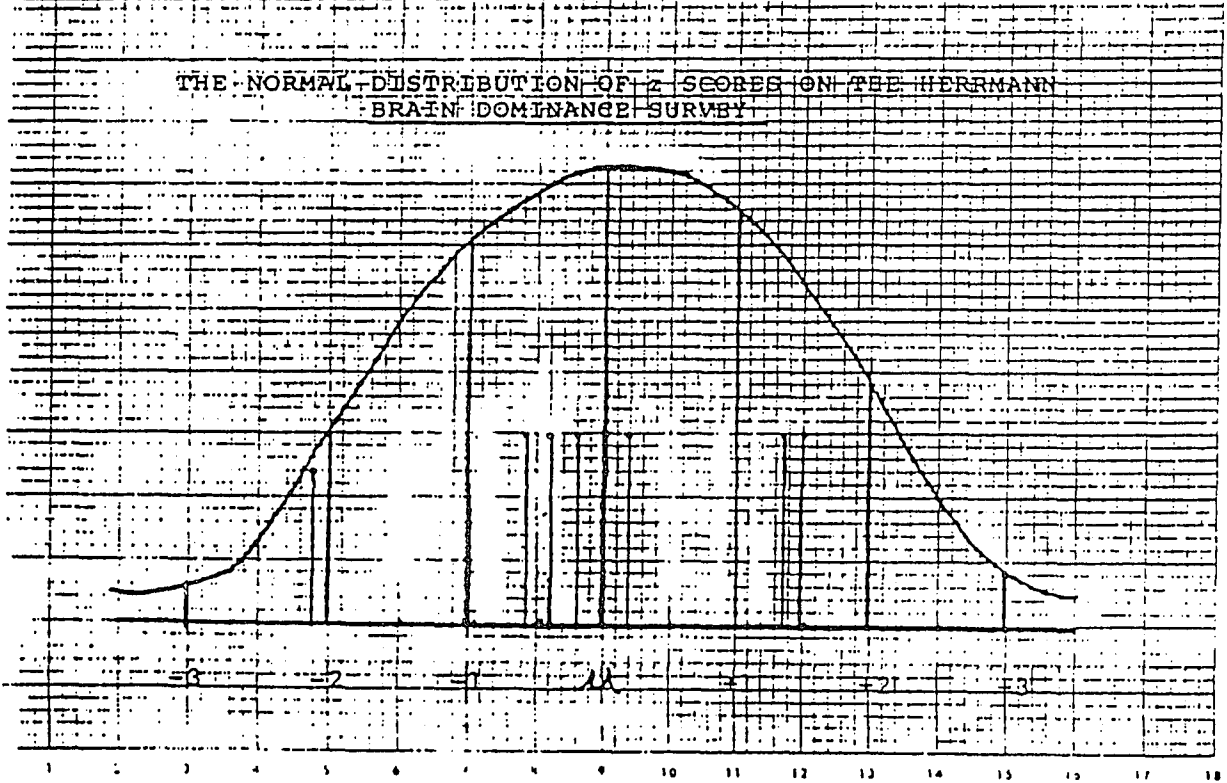
All z scores are within two standard deviations of the mean on the normal curve for z scores on the LBDQ. However, on the Brain Dominance Survey , one score is 2.1 standard deviations below the mean and one score is on the mean. In both normal distributions, 62.5 per cent of the subjects were within one standard deviation of the mean. However, on the LBDQ four of the subjects were within one standard deviation above the mean with only one being below; on the Brain Dominance Survey , only one was within one standard deviation above the mean with one score being on the mean and three scores being within one standard deviation below the mean. On the LBDQ, two subjects were more than one standard deviation below the mean with one subject being more than one standard deviation above the mean. On the Brain Dominance Survey , one subject was more than two standard deviations below the mean and two were more than one standard deviation above the mean.

Data found in Table 17 were used to confirm the positive Pearson Product Moment correlation by computing a Spearman rho using the rankings of raw scores from the LBDQ and the Brain Dominance Survey .

Table 17

Data for Spearman RHO

Principal	x^2	Y	D	r^2
6	1	2	1	1
3	2	4	2	4
5	3	1	2	4
9	4	6	2	4
7	5	7	2	4
2	6	3	3	9
4	7	5	2	4
8	8	8	0	0

r ranks = .64

The significance of r_{rank} at the .05 level is .66 (n=9). The computed r of .64 falls just short of significance at .05 for the correlation between higher LBDQ raw scores and higher Brain Dominance Survey raw scores for this study.

Because there is a small "n", the Pearson r and the Spearman rho may not be the best statistical indicators for this study; however, both computed the same (+.64) and are close to the preset significance level of .05 for this study. They have been used to give added support to the other computations.

Summary

This chapter presented the data collected from an analysis of personal interviews, demographic questionnaires, the <u>LEAD-Self and LEAD-Other</u>, the Herrmann <u>Brain Dominance Survey</u>, and the <u>LBDQ</u> of female principals in high schools of excellence across the Southeastern United States. The data were organized into tables and figures for easier analysis. The following chapter presents the findings and conclusions based on these data analyses.

CHAPTER V

SUMMARY OF FINDINGS, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

FOR FURTHER STUDY

INTRODUCTION

This quasi-experimental, exploratory study combined ex post facto, descriptive data with individual case studies. The researcher investigated female secondary school principals in schools of excellence, grades seven through twelve, in the Southern region of the United States (schools in states of the Southern Association of Colleges and Schools—SACS—area of accreditation) by exploring their brain dominance patterns through the use of the Herrmann Brain Dominance Survey, their leadership styles through the use of the Leader Effectiveness & Adaptability Description (LEAD) and the Leader Behavior Description Questionnaire (LBDQ), and their personal characteristics through observations, interviews, telephone conversations, and questionnaires.

The study used nine subjects. (There have been 19 female secondary principals in schools of excellence in SACS since the beginning of the recognition program in 1982. Of those 19, eight have taken other jobs and have been replaced by male principals. Of the remaining 11, two chose not to participate in the study.)

The questions in this study were explored by analyzing brain dominance patterns, the LEAD Matrix, scoring sheets, graphs, scatterplots, figures and tables. Statistical measurements included percentages, Chi Square, Pearson r, Spearman rho, z scores and T scores.

A review of literature related to leadership, leadership behaviors and characteristics, creative leadership, leadership styles, brain dominance research, and the secondary schools recognition program was conducted for this study. This chapter contains a

summary of the findings from the literature research, a summary of the findings from this study, discussion, conclusions and recommendations for future research.

SUMMARY OF THE FINDINGS FROM THE REVIEW OF LITERATURE

Leadership

Research on leadership revealed that supervising professional educators required a non-authoritarian leadership style—an egalitarian manner. Studies on leadership behaviors of women indicate that most women leaders possess this style.

Leadership Behaviors

Early leadership literature expounded to potential women leaders the virtues of behaving like men. Women were told to be more strategic, assertive, and competitive and to show less emotions and sensitivity.

Research since 1972 suggested that successful leaders should possess characteristics, attitudes, and temperaments commonly ascribed to men—task oriented and authoritative. However, Burns (1978) exposed that the leader should tap the needs, raise aspirations, and help shape values—and hence mobilize the potential of followers. Instead of giving orders or directly controlling activities, the leader should set directions and let followers carry them out in their own ways.

The best leadership should be based on synthesizing, intuitive, qualitative thinking and rely on adaptive relationships for support. According to Loden (1985) the feminine leadership model consisted of those same attributes—cooperation, team building, empathy, and collaboration.

Characteristics of Educational Leaders

Research revealed that female education leaders involved teachers, superiors, and outsiders in their work while men tended to make final decisions and took action without involving others. Women also used more cooperative planning strategies in meetings than did men. They gave greater emphasis on the individual differences among pupils, on the social and emotional development of their pupils, on the "deviant" pupils, and on the technical skills of teachers than men. To coincide with these facts professional performance of teachers and pupils learning were found to be higher in schools administered by women.

Women viewed the job of principal as that of a master teacher or educational leader while men viewed it from a managerial-industrial perspective.

Creative Leadership

Research revealed vision as the commodity of creative leaders. It also revealed that there were demands for education improvement. This improvement called for leaders who could conceptualize visions of the future and direct the schools toward new pathways. Research revealed that the creative administrator was a guide to help each student and teacher develop to his/her maximum capabilities. He/she had a good rapport with teachers and students. He/she generated the feeling of the importance for everyone to create. He/she motivated teachers and students to think creatively.

Leadership Style

For this paper, leadership styles were limited to those involving the LEAD which include "Delegating", "Participating", "Selling" and "Telling" and also those which involved the LBDQ which built on the elements of "Consideration" and "Initiation of

Structure".

The LEAD was based on two important assumptions:

1. Leaders can correctly diagnose the situation.

2. Leaders can adapt their preferred style.

Several primary factors influence leader effectiveness: leader, leader's superordinate, followers, key peers, organization climate, job demands, and decision time.

The LBDQ was developed to obtain descriptions of the leader. It was used for a description of leader behavior in any type of group or organization.

Brain Research

Brain research revealed that the brain was composed of four areas or quadrants. These quadrants were called cerebral right, cerebral left, limbic right and limbic left according to Herrmann (1982 & 1986). Even though each quadrant was specialized in its processes, the quadrants worked together to perform the functions of the brain.

Two quadrants, the cerebral right and cerebral left, represented the more cognitive, intellectual modes. The other two quadrants, limbic right and limbic left, represented the more visceral, emotional modes. The left mode, consisting of the cerebral left and limbic left, involved logical, analytic, quantitative and fact based thinking processes in the Upper Left quadrant and more planned, organized, detailed and sequential thinking processes in the Lower Left quadrant. The other two quadrants, cerebral right and limbic right, made up right-mode specialization. These included thought processes that were more synthesizing, integrating, holistic, and intuitive in the Upper Right quadrant, and interpersonal, emotional, kinesthetic and feeling thinking processes in the Lower Right quadrant. (Herrmann. 1986).

As a person goes through a decision-making process he/she applies the approaches and strategies of each quadrant to the degree of his/her preferences. Our thinking modes influence how we communicate, solve problems, deal with relationships and make

decisions (Herrmann. 1986).

Secondary Schools Recognition Program

In 1988, the recognition process was built on five factors characteristic of effective schools:

1. A school climate conducive to learning—one free of disciplinary problems and vandalism

2. The expectation among teachers that all students can achieve

3. An emphasis on basic skills instruction and high levels of student time-on-task

4. A system of clear instructional objectives for monitoring and assessing students" performance

5. A school principal who is a strong programmatic leader and who sets school goals, maintains student discipline, frequently observes classrooms, and creates incentives for learning (Bossert. 1985. 7)

The United States Department of Education began the secondary-school recognition program in 1983. The stated purposes of this program were to "identify and recognize unusually successful public secondary schools, and through publicity and other means, encourage their emulation by other educators" (Corcoran and Wilson. 1986. ix).

Leadership played a critical role in the schools selected for national recognition and the key actor was typically the principal. The principal was cited by teachers, students and parents as the major factor in their school's success. The principal provided the vision and the energy to create and maintain the conditions that were essential for success. The principal was the catalyst and was at the center of the action; he/she was committed to excellence (Corcoran and Wilson. 1986. 39).

Another striking feature that was found in recognized schools was the diversity of leadership styles. No leadership style seemed dominant.

SUMMARY OF THE FINDINGS FROM EXPLORATORY RESEARCH OF
BRAIN DOMINANCE AND LEADERSHIP STYLES

Introduction

Before considering the findings of this study, the general hypotheses that guided the study should be reviewed. These hypotheses are:

H_1: Leadership styles, as measured by the LEAD-Self, for these female secondary school principals will be flexible—these females will be able to modify their behaviors to fit any of the four basic styles used in the book by Hersey and Blanchard (1982): delegating, participating, selling, and telling.

H_2: These women will have clear educational goals and communication and decision-making styles that stress cooperation. They will monitor, evaluate student progress, and promote achievement and learning as well as display high morale and commitment.

H_3: Cognitive styles of the principals, as measured by Herrmann's Brain Dominance Survey, will closely align with those Chief Executive Officers (CEOs) previously cited and be more holistic or right-brain dominant than typical male counterparts in the principal-ship.

H_4: These female principals will have varied career paths leading to their selection as principals—not simply from teacher to principal.

H_5: There is no difference between the mean of this study's subjects of female principals and the mean of the norming test group of male leaders on each sub scale of the Leader Behavior Description Questionnaire.

These hypotheses were investigated through related research questions which served to guide the study, as well as through the literature review. The questions and findings are presented here in conjunction; the literature review findings are in Chapter Two and in a prior section of this chapter.

Questions and Findings

Question 1: What leadership characteristics do successful female secondary principals possess?

Findings

Interviews with each individual principal, some subordinates and superordinates showed that some characteristics were common to all the subjects. These characteristics (Table 7. 79) included nurturing, caring, visionary, optimistic, independent, and risk-taking. All nine subjects formed partnerships with their teachers; one said that she was an authoritarian sometimes, however. These principals also were good organizers, good negotiators, good communicators, good listeners, and had personal security.

The LEAD Matrix showed that the subjects perceived their leadership characteristics as including participating and selling. Significant "Others" perceived that the subjects' leadership characteristics also included participating and selling. In further analyses, secondary characteristics included all four styles for effective leaders—delegating, participating, selling, and telling, (supporting H_1).

Question 2: How do the leadership styles of these principals differ?

Question 3: How are these styles alike?

Findings

Data were analyzed from the <u>LEAD Matrix</u>. Included in this was an in-depth analysis of style range, flexibility, and adaptability of each subject from the individual perspective and from the perspective of others.

In style range and flexibility, Principal One perceived that she had the ability to vary her style from quadrant one to quadrant two to quadrant three. One "Other" also perceived her with that style range. Two "Others" perceived her range to vary between quadrants two and three.

Principal Two perceived her style range and flexibility to vary from quadrant two to quadrant three. One "Other" perceived her with that same range. The remaining "Others" perceived her range to vary from quadrant one to quadrant two to quadrant three (giving her a wider range of styles).

Principal Three also perceived her style range and flexibility as being from quadrant two to quadrant three. Two "Others" perceived this same range and one "Other" saw her with the wider range of quadrants one, two and three.

Principal Four perceived her range and flexibility as moving from quadrant two to quadrant three. All "Others" perceived her range as being from quadrant one to quadrant two.

Principal Five and her "Others" perceived her range and flexibility in the same way; quadrant two to quadrant three.

Principal Six also perceived her range and flexibility as moving from quadrant two to quadrant three. One "Other" perceived her styles as moving across the entire spectrum of ranges, from one to two to three to four. Another "Other" saw her range as being from quadrant one to quadrant two to quadrant three. The last "Other" perceived her range and flexibility as moving from quadrant three to quadrant four. Although "Others" perceive Principal Six as being more flexible, this principal represents the widest variance between

"Self" and "Other" perceptions.

Principal Seven perceived a wide range of styles for herself; quadrants one through four. Two "Others" perceived her having style ranges moving from quadrant two to quadrant three. The last "Other" perceived her range as between quadrants one and two.

Principal Eight perceived her range and flexibility as moving from quadrants two to three to four (she was the one principal who said that she did not mind being authoritarian at times). One "Other" perceived the same range. Another "Other" perceived her style range as moving from quadrants two to three. The third "Other" perceived Principal Eight as moving from quadrants one to two to three.

Principal Nine, like Principal Five, had the same perceptions as her "Others". They all perceived her style as moving from quadrants two to three.

In looking at commonalities, all "Self" and "Other" perceptions of style range and flexibility included quadrant two—participating—and quadrant three—selling—except for one "Other" in each case. This strengthens the interview data where all the principals saw themselves as being partners with their faculties (supporting H_2). Seven of the principals were perceived by "Self" and "Others" to have the ability to move within at least three styles; three principals were perceived as moving through all four styles.

When looking at adaptability, the degree to which changes in styles are appropriate to the level of readiness of the people involved in different situations, Principal One scored herself 26—a moderate degree of adaptability. Two "Others" also saw her adaptability as being moderate; 28 and 24 respectively. However, one "Other" saw her adaptability as being high—31.

Principal Two scored herself higher than her "Others" at 28 (moderate adaptability). Two "Others" also scored her at moderate adaptability; 24 and 27. One "Other" scored her at low adaptability; 20.

Principal Three also scored herself at 28. One "Other" also scored moderate adaptabil-

ity with a 26. Two "Others" scored her with a low adaptability; 23 and 19.

Principal Four was the only one to score herself a low adaptability at 23. One "Other" also scored her at 23 while another scored her higher at 27 (moderate).

Principal Five scored herself moderately high at 27. Two "Others" scored her moderately high at 29 and 24 respectively while one "Other" scored her high at 30.

Principal Six scored her adaptability high at 30. One "Other" scored her high—30; another scored her moderate—25; another scored her low at 22.

Principal Seven also scored herself high at 31. All "Others" scored her moderately high at 26, 26 and 27 respectively.

Principal Eight scored herself moderately high at 28. Two "Others" also scored her moderately high at 24 and 25. One scored her low at 23.

Principal Nine and her "Others" scored her moderately high—24, 25, 26 and 26 respectively.

In looking at commonalities and dissimilarities in the composites of Table 18, six of the nine principals perceived themselves as having moderate adaptability. Seventeen out of 26 "Others" also scored their individual principals as having moderate adaptability. Two principals and three "Others" perceived a high adaptability, while one principal and six "Others" perceived a low adaptability. The most prevalent adaptability level is moderate as perceived by these principals and their "Others". This would indicate that they had a moderate ability to adapt to any of the four styles depending on the situation. Generally, the nine principals were quite similar, and both they and the "Others" agreed on the principals' adaptability styles.

Table 18

A Composite of the Adaptability Scores of the Nine Principals for the LEAD-Self and LEAD-Other

Adaptability	Principal (n)	%	"Others" (n)	%
Low	1	11	6	23
Moderate	6	67	17	65
High	2	22	3	12
Totals	9	100	26	100

Question 4: Is there one prevalent style that is used by these female principals?

Findings

Six of these principals perceived their primary style as being in quadrant two—participating. Fifteen "Others" perceived quadrant two to be their principal's primary style. The other three principals saw their primary style as being in quadrant three—selling. Eight "Others" perceived quadrant three as being their principal's primary style. Two "Others" had a tie between styles two and three for their principal's primary style. One "Other" perceived the principal's leadership style as being style one. Table 19 shows composites of primary style for these nine principals.

Table 19

A Composite of the Primary Styles of the Nine Principals Using Data from the LEAD-Self
and LEAD-Other

Primary Style	Principal (n)	%	"Others" (n)	%
One	0	0	1	4
Two	6	67	16*	61.5
Three	3	33	9*	34.5
Totals	9	100	26	100

*Adjusted for the tie

Quadrant two was seen as the primary style and quadrant three was perceived as being at least one of the secondary styles by "Self" and "Others". Data from the LEAD Matrix show that "Participating" is the most prevalent leadership style of these principals with "Selling" as the second most prevalent style.

Question 5: What are the personal and professional characteristics, job related tasks, and expectations of these female principals?

Findings

The most prevalent characteristics (Table 7. pp. 79-80) of Principal One include: team building, nurturing, energetic, analyzing, problem solving, sensitive, compassionate, protective and motivating. Principal Two was seen as caring, warm, strong, a good organizer, a good negotiator, a team player and builder, a morale builder and cheerleader. The main characteristics attributed to Principal Three included: intelligent, attends to details, prepared, nurturer, participatory manager, friendly, fair, deligent, role model for

punctuality and organization, loyal, academician, team player, cheerleader, has a high tolerance level, and dedicated. Principal Four was seen as independent, authoritarian and delegator, well organized, problem solver, and demanding while making the faculty and students feel comfortable. Principal Five's characteristics included nurturing, team building, personal security, and a good listener. Principal Six was seen as a nurturer who built partnerships and teams, a good listener and a good communicator. Principal Seven was also seen as a nurturer, a team builder, hard working and energetic. Principal Eight was seen as being trustful, a team builder, a good listener and having the ability to make people feel comfortable. Principal Nine's characteristics included being a nurturer, a participatory manager, honest, caring, humanistic, innovative, confident and secure. All nine principals saw themselves as being visionary. When analyzing job related tasks (Table 8. p. 81), Principal One spent 34.4 per cent of her time on program improvement; 8.3 per cent of her time on the community; 22.4 per cent of her time on student-related services and activities; and 34.9 per cent of her time on building management and district relations. Principal two spent her time in the following manner: 25 per cent on program improvement; 5 per cent on community; 50 per cent on student-related services and activities; and 20 per cent on building management and district relations. Principal Four spent 40 per cent of her time on program improvement; 5 per cent on community; 30 per cent on student-related services and activities; and 25 per cent on building management and district relations. Principal Five spent 30 per cent of her time on program improvement; 10 per cent on community; 40 per cent on student-related services and activities; and 20 per cent on building management and district relations. Principal Six spent 40 per cent of her time on program improvement; 10 per cent on community; 30 per cent on student-related services and activities; and 20 per cent on building management and district relations. Principal Seven spent 30 per cent of her time on program improvement; 10 per cent of her time on community; 50 per cent on student-related services and

activities; and 20 per cent on building management and district relations. Principal Eight spent 30 per cent of her time on program improvement; 10 per cent on community; 50 per cent on student-related services and activities; and 10 per cent on building management and district relations. Principal Nine spent 25 per cent of her time on program improvement; 15 per cent on community; 50 per cent on student-related services and activities; and 10 per cent on building management and district relations.

All nine principals have high expectations for their school, their faculty and their students. They want their schools to be great places of learning and growing. When looking at their individual expectations for their vocational futures, Principal One envisions the central office; Principal Two sees herself as a college administrator; Principal Three has enjoyed all her education career and is satisfied where she is; Principal Four wants to retire from education and be a manager in the business world; Principal Five is satisfied with being a high school principal; Principal Six wants to be a school superintendent; Principal Seven wants to be an administrative assistant in charge of an entire campus in the private school community; Principal Eight is satisfied where she is; and Principal Nine wants to retire from public school to be either a manager in the business world or a college professor.

Question 6: What similarities and differences exist in the characteristics, tasks, and expectations of these principals?

Findings

All the principals felt that they were nurturers and that they also empowered their faculties through partnerships. Principal Four saw herself as being a nurturer to some extent, however she also saw herself as being authoritarian and a delegator. All nine principals saw themselves as risk-takers even though Principal Eight did not especially feel comfortable in the role. Five of the nine principals used the words team player, team

builder, or cheerleader when speaking of their personal characteristics. The nine principals saw themselves as being good analyzers, problem solvers, negotiators, organizers, or good listeners.

A review of job-related tasks, as seen in summary in Table 20, shows that Principal Five, Seven and Eight spent about 30 per cent of their time in program improvement; Principals Two and Nine spent about 25 per cent of their time in this area; Principals Four and Six spent about 40 per cent in this area; and Principal One spent about 34 per cent of her time in this area. When looking at community, Principals Two and Four spent about 5 per cent of their time; Principal One spent about 8 per cent of her time; Principals Five, Six, Seven and Eight spent about 10 per cent of their time in this area; and Principal Nine spent about 15 per cent of her time here. For student-related services and activities Principal One spent about 22 per cent of her time; Principals Four and Six spent about 30 per cent of their time; Principal Five spent about 40 per cent of her time; and Principals Two, Seven, Eight, and Nine spent about 50 per cent of their time. For building management and district relations Principals Seven, Eight and Nine spent about 10 per cent of their time; Principals Two, Five and Six spent about 20 per cent of their time; Principal Four spent about 25 per cent of her time; and Principal One spent about 35 per cent of her time. These nine principals spend the largest percentage of their time on student-related services and activities—an average of 39 per cent; from Table 8 (p. 81), the national average of strong education leaders is only 21 per cent. These women do monitor, evaluate student progress and promote achievement and learning (supporting H_2).

Table 20

A Summary of the Percentage of Time Spent on Job-Related Tasks by the Nine Principals for this Study

%	Program	Community Improvement	Student-Related Services	Building Management
50			*2,7,8,9	
45				
40	*4,6		*5	
35	*1			*1
30	*5,7,8		*4,6	
25	*2,9			*4
20			*1	*2,5,6
15		*9		
10		*1,5,6,7,8		*7,8,9
5		*2,4		

*Principals

All nine principals had the same high expectations for their schools, faculties, and students—they want their schools to be great places. When looking at individual expectations, three principals are content to be high school principals; three want to be on the central office staff; two want to move into the business world; and one or possibly two want to be college professors or administrators.

Question 7: What mental processes do these principals use as revealed by the Herrmann Brain Dominance Survey?

Findings

Principals One, Two, Three, Four, Six, Seven and Nine, or 78 per cent of the subjects are holistic in their mental processes. This means that they can start the mental process in

any of the quadrants depending on their preference and the situation. They can use common sense or intuition; be realistic or idealistic; or a combination of all of these. Thought processes can be fact based, controlled, feeling or open-minded; they can be verbal or non-verbal; and they can be structured or experiential.

Principals Five and Eight are left-brained in their mental processes. This means they will began their thought processes in either the left or the lower left quadrants and be either organized, sequential and procedural or logical rational and quantitative in their thought processes.

Question 8: How do the individual mental processes help each principal as a leader?

Findings

According to Herrmann (1986. p. 20), people tend to work where they can use their preferred modes of knowing to contribute to their success and fulfillment. Job satisfaction correlates directly with competence which is thus directly correlated with mental preference. Productivity, performance and satisfaction correlate directly with the degree of match between mental preferences and work elements (p. 21). These principals are high in production, performance and satisfaction. For the most part they are visionary, risk-taking, open and personable. They use their mental processes to be successful in their leadership endeavors.

Seven of these principals can work almost equally in any of the four quadrants of the brain. Any of the following types could describe them at any point in time: quantitative, intellectual, technical; or evaluative, conservative, traditional; or personable, musical, helpful; or visionary, risk-taking and open. Two of the principals will most likely fit into one of two types: quantitative, intellectual and technical; or evaluative, conservative and traditional. Whichever type describes the principal, she is using it and her preferred mental processes to be a successful leader who works in a successful school with a high

level of productivity and job satisfaction.

Question 9: How are the career paths of these successful female principals of schools of excellence similar and different?

Findings

Data from Figure 20 found on page 105 revealed that only Principal Five went from being a teacher to a principal in a private high school. All the other principals had a line administrative position (either guidance counselor and/or assistant principal) which led to the principalship. Principals Two and Seven went from being guidance counselors to the principalship; Principal One, Three, Six, Eight and Nine went from teacher to at least one assistant principalship before becoming a principal. The average career path seems to be teacher, assistant principal (not in a high school), principal (not in a high school), principal (high school) (supporting H_4).

From Table 11 (p. 102) data revealed that these principals had been administrators from 2-20 years with a mode and median of 9 years and a mean of 9.7 years. They were between the ages of 32-50 when they entered administration with a mode of 38, a median of 40 and a mean of 39.8. Their age range now is between 38-60 years old with a mode of 48; a median of 47.5; and a mean of 49.4. Three principals work in a school system with less than 5,000 students; one principal works in a school system with between 5,001-10,000 students; and five principals work in a school system with over 20,001 students. Three of these principals have masters degrees; five principals have sixth year degrees with three of these working on their doctorate; and one principal has her doctorate. Four principals work in suburban communities; three work in urban communities; one works in an inner-city community and one works in a rural community. Four of these principals are married; two are single; one is divorced; and two are widowed. These principals have between 0-6 children with a mode of 2; a median of 3.5; and a mean of 2.6.

Question 10: Does the <u>LBDQ</u>, with its reliability/validity and norming on all male subjects, seem to work equally well with these nine female principals as with male subjects?

<u>Findings</u>

According to data in Table 14 (p. 111), the female subjects in this study had mean scores which were contained within the 95 per cent confidence intervals of the norming group of male subjects on seven out of the 12 sub scales: Representation, Demand Reconciliation, Tolerance of Uncertainty; Persuasiveness; Predictive Accuracy, Integration and Superior Orientation. They had higher mean scores than the male norming group's 95 per cent confidence intervals on three sub scales: Initiating Structure, Tolerance of Freedom and Consideration. These female subjects had lower mean scores than the male norming group's 95 per cent confidence intervals on two sub scales: Role Assumption and Production Emphasis. These differences which are beyond the confidence intervals could be due to measurement error. They could also be due to some known facts from the review of literature: feminine leadership qualities include sensitivity, democracy and humanity; male leadership qualities include being more authoritarian and managerial oriented.

When comparing the total mean for the female subjects in this study with the total mean for the male norming group, the principal group was contained within the 95 per cent confidence interval of the male norming group: female mean=32.8; male mean=32.6; SE_m=1.6; confidence intervals=31-34.2.

For this study, seven of the sub scales on the <u>LBDQ</u> contained these female subjects means within the 95 per cent confidence intervals of the male norming group. Since measurement error could be a factor, there is the possibilty that on a retest all 12 sub scale means could be contained within the 95 per cent confidence interval. Therefore, for this study, the <u>LBDQ</u> works equally well for the female subjects and the male norming group.

Men and women do the same things when they lead; they do not necessarily travel the same paths to do them.

Question 11: What is the correlation between raw scores on the <u>Brain Dominance Survey</u> and raw scores on the <u>Leader Behavior Derscription Questionnaire</u>?

<u>Findings</u>

A Pearson r deviation formula, r_{xy} was found to be +.64. This computation reveals a moderate correlation between raw scores on the <u>Brain Dominance Survey</u> and the raw scores on the <u>LBDQ</u>.

When comparing T scores with a mean of 50 and a SD of 10, Principals Three, Five and Six are all above the mean on both the raw scores on the <u>Brain Dominance Survey</u> and the <u>LBDQ</u>; Principals Seven and Eight are below the mean on both scores; Principals Two and Four have one raw score above the mean and one below it; and Principal Nine has one raw score on the mean and one below it. For this study, 62.5 per cent of the subjects were within one standard deviation of the mean. On the <u>LBDQ</u>, five scores were above the mean and three scores were below the mean. For the <u>Brain Dominance Survey</u>, three subjects were above the mean, four subjects were below the mean and one was on the mean.

A Spearman rho was also computed to confirm the positive correlation. R_{ranks} was computed at +.64. However, the .05 level is .66. This indicates that the moderate positive correlation between high scores on the <u>Brain Dominance Survey</u> and high scores on the <u>LBDQ</u> is not quite statistically significant at the .05 level. The r^2 shows that these variables explain about 40 per cent of the variance in the relationship.

Hypotheses of the Study

Based on the data presented in the preceeding section of findings, the hypotheses of this study will now be addressed. They include:

H_1: Leadership styles, as measured by the LEAD-Self, for these female secondary school principals will be flexible—these females will be able to modify their behaviors to fit any of the four basic styles described in the book by Hersey and Blanchard (1982): delegating, participation, selling, and telling.

This hypothesis is retained. The females in this study move readily through the two styles, participating and selling. Seven of the nine move through delegating as well. Two principals move through all four styles. Even though all principals did not have the range and flexibility of all four styles, their adaptability level was moderate to high indicating that most could move through all four styles if the situation demanded it. According to Hersey and Blanchard (1985), leaders perceived as using predominately styles two and three tend to work well with people of average maturity levels. These leaders are usually effective because most work groups fall into average maturity levels.

H_2: These women will have clear educational goals and communication and decision-making styles that stress cooperation. They will monitor, evaluate student progress, and promote achievement and learning as well as display high morale and commitment.

This hypothesis is retained. All the principals stressed cooperation, team-building and team playing. Decision-making was a joint endeavor. These principals monitored, evaluated student progress, and promoted achievement and learning as was in evidence in the job related tasks (Table 8. p. 81). They spend 39 per cent of their time in student-related services and activities as compared to 21 per cent for the national average of strong instructional leaders. They also spend 33 per cent of their time on program improvement; about the same as the national average of 33 per cent.

H_3: Cognitive styles of the principals, as measured by Herrmann's <u>Brain Dominance Survey</u>, will closely align with those Chief Executive Officers (CEOs) previously cited and be more holistic or right-brain dominant than typical male counterparts in the principal-ship.

This hypothesis is retained. Seventy-eight per cent of these principals are holistic or right-brain dominant. When comparing this study with the Norris study (Table 10. p. 100), percentages include: Nominated Superintendents—48 per cent; Random Superintendents—33 per cent; Principals—59 per cent and Supervisors—63 per cent. In comparing this study with the Coulson and Strickland study (Figure 18. p. 124), the principals in this study are closely aligned with the CEOs of the Coulson and Strickland study.

H_4: These female principals will have varied career paths leading to their selection as principals—not simply from teacher to principal.

Although one of these principals went from teacher to principal in a private school, this hypothesis is retained. Eight of the nine subjects followed varied career paths including teacher, guidance counselor, assistant principal (not high school), assistant principal (high School), principal (not high school), to principal in a high school.

H_5: There is no difference between the mean of this study's subjects of female principals and the mean of the norming test group of male leaders on each sub scale of the <u>Leader Behavior Description Questionnaire.</u>

On seven of the sub scales, Representation, Demand Reconciliation, Tolerance of Uncertainty, Persuasiveness, Predictive Accuracy, Integration and Superior Orientation, the means for the principals in this study are contained within the confidence intervals of the norming group. For three sub scales, Initiating Structure, Tolerance of Freedom and Consideration, the female group had a higher mean than the male norming group. In two sub scales, Role Assumption and Production Emphasis, the female group had a lower

mean than the male norming group. The three higher means on sub scales could reflect the female leadership qualities including sensitivity, democracy, and humanity (Heller. 1982). The fact that the subjects in this study are collaborators rather than authoritarians could account for their lower scores on Role Assumption and Production Emphasis.

The total mean for all sub scales for the female subjects was contained in the 95 per cent confidence interval of the male norming group. Also, seven out of 12 sub scales of the female group means are contained within the confidence intervals of the norming group. Thus, this hypothesis is not rejected.

DISCUSSION

The results of this study supported the hypotheses on which it was based. An important finding for this study was that both the principal group and their "Others" perceived that they had flexible leadership styles as measured by the LEAD-Self and LEAD-Other. Even though the basic style for these principals was participating, their adaptability range allowed them to move through other styles depending on the situation.

These principals monitor, evaluate student progress and promote achievement and learning as was evident by their job-related tasks inventory. This inventory found them spending a total of 72.2 per cent of their day in a combination of student-related services and activities and school program improvement as compared to 54 per cent for strong education leaders nationally.

Another important finding in this study was that 78 per cent of these female principals exhibited a strong right-brained nature and were highly capable in conceptualization. Education needs strong visionary leaders who can conceptualize what the future can become. The two most prevalent brain dominance codes (Herrmann. 1982) for this study were 1211 and 1112. Both codes are holistic and right-brained. The total composite code

for all nine principals was 1111. This means that on the average, these principals can use each quadrant equally well depending on the situation, preference and the circumstances.

These findings on brain dominance were compared with the Norris study (1984). The Norris superintendent group, composed of all males, was predominately left-brained in nature. Their most prevalent dominance code was 1122 (the most pronounced left-brain code) (Norris. 1984. 143). Her principal and supervisor groups were more holistic in dominance patterns than the superintendent groups: principals—59 per cent right-brained to 41 per cent left-brained; supervisors—63 per cent right-brained to 38 per cent left-brained (this group had more female subjects than the other groups). It appears from this study that the CEOs of public schools are primarily left-brained and are more capable in technical skills than conceptual skills.

In comparing the composite brain dominance codes of this study's subjects with the superintendents of the Norris study (Figure 15. p. 95), the superintendents from the Norris study scored highest in the lower left quadrant represented by controlled, organized, conservative thought processes while the principals from this study scored least in this quadrant.

The same difference held true for comparisons with the supervisors in the Norris study (Figure 16. p. 96)—the supervisors highest score was also found in the lower left quadrant. However, this profile did not represent as pronounced a difference as with superintendents. Both the principals in this study and the supervisors from the Norris study had a higher mean score in right-brain dominance; they both had a higher capacity to conceptualize than the superintendents from the Norris study.

Figure 17 (p. 97) showed a marked dominance by the Norris principal group for the lower left quadrant; the principals in this study have slightly higher scores in the cerebral left quadrant. Both of these groups have the advantage of a strong conceptual component in the upper right quadrant.

Figure 18 (p. 98) shows a comparison of the CEOs and the school superintendents in the Coulson and Strickland study. Results showed that the CEOs were more balanced in both cerebral hemispheres than the superintendents and also used the right hemisphere to a greater extent than did the superintendents. The principals in this study are more closely aligned with the private sector CEOs of the Coulson and Strickland study than with the school administrators of the Norris study (Figure 19. p. 99).

Data in this study showed that these principals had varied career paths to the position of high school principal. Most of them felt that they had to "prove" themselves by following an avenue of at least one assistant principalship (several had more than one assistant principalship). Most also had more than one principalship. They usually started in an elementary or junior high school before becoming a high school principal. The only principal who went from teacher to principal was in the private school sector. The review of literature revealed that women had more varied career paths than men who most often went from the classroom to high school principal, or from classroom to assistant principal to principal.

The final significant fact to be reported from this study was that women and men scored similarily on seven sub scales from the LBDQ: Representation, Demand Reconciliation, Tolerance of Uncertainly, Persuasiveness, Predictive Accuracy, Integration, and Superior Orientation. The five scores that were scored differently could relate to data found in the research review. Women scored higher on Initiating Structure, Tolerance of Freedom and Consideration. This could relate to known female leadership qualities of sensitivity, democracy and humanity. Men scored higher on Role Assumption and Production Emphasis. This could relate to the fact that men are basically technically oriented with the majority of their time spent on building maintenance.

With education in crisis, it is time changes were made—in the classroom (public/ private schools, undergraduate teaching methods, and graduate/post-graduate teaching

methods and education leadership); in the selection of teachers, principals and other administrators (the objective should not be to "promote from within" or to be sure that the "glass ceiling" is in place, but to make sure schools are successful places whatever the costs in monies and personnel). There must be a willingness to be creative and innovative; to not accept the ordinary and mundane; to realize that unless we begin teaching for right-brain dominance and leading using a holistic style, we are dooming future generations to archaic traditions. We are dooming America by stifling the creative genius in us all.

CONCLUSIONS

It is difficult to make major change in one stroke. Both attitudes and traditions have deep roots. However, from the review of literature on leadership styles, creative leadership, and brain dominance and from an analysis of the data from this study, it is apparent that change is needed in the education leadership community. To accomplish this, schools of education must re-vamp both curricula for teachers and administrators to insure that they use both right and left hemispheres of the brain—that they "learn" to be holistic in nature. This can be accomplished through less structure (i.e. lecture and note-taking—a left-brained approach) and more projects, problems to creatively solve and hands-on research. Each person comes "to know" via his/her own unique way. Therefore, he/she should be free to structure knowledge independently. The professor serves as a guide but gives students freedom to be original and autonomous. The grading scale should be organized in such a way that points are given for creative and flexible problem solving and for risk-taking when devising solutions. The classroom must be conducive to creativity and experimentation.

The education administrator needs sufficient technical skills to accomplish the mechanics of the particular job for which he/she is responsible; he/she must have certain

organizational and administrative skill to run the organization efficiently; he/she must have sufficient interpersonal skill in working with others to be an effective group member and to be able to build cooperative effort within the team he/she leads; and he/she must have sufficient conceptual skill to recognize the interrelationships of the various factors involved in the organization and take action which is likely to achieve the maximum good for the total organization. This leader must be holistic or have right-brain dominance. Good leaders are not necessarily born; they may be developed. Research reveals that right-brain dominance can be promoted—that people can be taught to be creative conceptualizers. Unfortunately, many education leaders reject creativity, intuition and innovation in favor of tradition. Education leadership must be visionary.

Conclusions based on the data from this research include:

1. School boards and superintendents should use the available research that demonstrates the ability of women administrators—not only for the recruitment of more women into administrative positions (this should already be happening), but also to identify men with the same potential for a holistic brain dominance and participatory leadership style. School boards should also establish programs to identify women on their staffs who have potential for educational leadership and encourage and assist them in the development of necessary administrative skills. Schools of education should actively recruit, train and encourage women for administrative positions and also develop internship programs for them.

2. The female principals in this study have clear educational goals and communication and decision-making styles that stress cooperation. They monitor, evaluate student progress, and promote achievement and learning as well as display high morale and commitment. They are concerned with those aspects of the job that give them, their subordinates, and their students a sense of personal fulfillment. They try to structure the work environment so that their subordinates can become personally involved through

participatory management and shared decision-making. Instead of focusing on issues that might only minimize job dissatisfaction, they concentrate on incentives that actually promote job satisfaction. Education leaders who are optimistic about and trusting of people in general and motivationally concerned with personal involvement—rely heavily on their subordinates' participation in work-related decision-making. Subordinates who have the opportunity to participate feel committed to and responsible for decisions and are highly satisfied with their job. These principals praised their staff for their commitment to education and many said that they had a low turn-over rate and low absenteeism.

Analyzing female approaches to education leadership can be used by all principals and education leaders to isolate particular behaviors and strategies that promote achievement, learning, high morale and commitment. Schools of education must provide more useful ways of looking at the administrative leadership process. This should prove useful in the selection, training and promotion of education leaders.

3. The cognitive styles of the principals in this study, as measured by Herrmann's <u>Brain Dominance Survey</u>, are closely aligned with chief executive officers in large corporations and are holistic or right-brain dominant (78 per cent). Being an effective, visionary education leader requires some competence in each quadrant of the brain. He/she must be an efficient operator and an effective strategist. It is his/her responsibility to provide the framework and direction for overall school operations. He/she must change his/her management style and strike different balances among his/her personal skills as conditions change.

Changes should be made in the way leaders of school systems consider applicants for education leadership positions. Where school boards hire leaders, members should (whenever possible) observe candidates in the work place. A checklist of things to look for might include: creative/innovative programs in use; morale/excitement level of the subordinates; long range and short range goals—are they visionary; problem-solving

techniques—are they "traditional" methods or innovative/creative methods? Thought should also be given to the induction of a brain dominance test into the applicant's screening process to actually determine brain dominance. These procedures should also be used by the superintendent of schools if he/she hires the system's principals.

Not only should analytical logical skills be assessed, but also conceptual ability as well. Departments of education in higher education should address the issue of right-brain dominance. Classes should be offered in creative thinking skills and intuition; emphasis should be placed on theory as well as practicalities. Holistic approaches to the learning environment should be established in schools. Women should be given more opportunities to use their holistic leadership qualities through leadership positions.

4. All principals, male and female alike, should be assessed in the same manner. The career path to the principalship should move along the same lines for both genders. Both should be assessed analytically and conceptually and both should have training in intuitive thought processes. Reorganization of teaching/ learning in college curriculums must accommodate holistic thinking processess for future education teachers and leaders.

5. Males and females alike scored approximately the same on seven of the sub scales of the LBDQ showing that there is no difference between the mean of the two groups. Even though males and females approach leadership by different routes, they still do the same things—only use different methods to achieve them.

RECOMMENDATIONS FOR FURTHER STUDY

This final section presents recommendations for future study in the areas of leadership style, creative leadership and brain dominance. These recommendations include:

1. The knowledge that there are differences in brain preferences should help faculties in college and university departments of education in their future planning of curriculum

for education leaders. Further research needs include planning for creativity and intuitive thought in the education process. Universities should set up research centers for the study of brain dominance and its relationship to leader styles.

2. Educators in public and private education as well as educators at universities and colleges should provide instructional methods for both the right and left-brain learning. Further research needs include planning activities for four-quadrant learning and thinking to develop the brain more fully.

3. A replication of this study should be done using both male and female subjects in secondary schools of excellence. Do excellent male principals use a holistic approach to leadership also? What leadership styles according to Hersey and Blanchard do male principals in schools of excellence use? How many male principals had access to the principalship directly from the classroom? Will there be a difference between the mean of male and female principals of schools of excellence on the LBDQ? Will these men have clear education goals and use cooperative decision making?

4. A replication of this study should be done using both male and female subjects in elementary and middle schools of excellence.

5. A replication of this study should be done using other "leadership style" instruments. This may entail the development of a new instrumentation using both male and female subjects for validation. The present study was limited by the low reliability and validity of the LEAD-Self and LEAD-Other. (These instruments were used because they were validated with both male and female subjects.)

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APPENDIX A

Interview Questions

1. What is your personal vision for your high school?
2. Sara Lightfoot notes that a feminine model of leadership finds leaders expressing a need for partnerships and nurturance--How do you feel about this statement?
3. How do you use power and how do you empower your subordinates? (power--basic energy to initiate and sustain action translating intention into reality.)
4. How do you communicate your agenda to every level of the school?
5. What are your strengths as a leader?
6. Are you a risk taker? Give examples if yes.
7. In your education career, have you ever been discriminated against because of your sex? Explain
8. Regarding the treatment of school administrators could you help me understand the sex discrimiation that exists today in our educational system?
9. Did you realize that nation-wide only two per cent of the high school principals are female? Did you set out to be an anomaly?
10. Why did you become a secondary school principal?
11. Are you content to be a principal or do you have further educational aspirations?
12. What are some of the experiences you have had in seeking employment as an administrator?
13. What "roadblocks" have limited your career?
14. Have you had any special mentors during your career? Who? When? Male/Female?
15. Have you had any special preparations (internships, awards, etc.) during your career?
16. What factors have contributed to your success?
17. How do you balance your life in school with your life out of school?
18. Can you give examples illustrating your most difficult challenges as a staff development leader?
19. What of your personal life supports effective leadership action?
20. How do you balance pressures from inside school with pressures outside of school?
21. Modesty aside, what special contribution of yours resulted in the excellence recognition award for this school?
22. Do you try to help people realize how your school is different from other schools in your area?
23. How do you deal with ineffective teachers?
24. Do you feel that women administrators can be successfully involved with the school's athletic program? If they cannot, does this influence the quality of leadership they can provide?

APPENDIX B

HERRMANN PARTICIPANT SURVEY FORM
© 1981 Ned Herrmann

DIRECTIONS: Answer each question by writing the appropriate words or marking in the box or space provided. If an answer sheet is provided, use the answer sheet to record your answers for items 5 to 99.

I. BIOGRAPHICAL INFORMATION

1. Name_____ 2. Sex: Male _____ Female _____
3. Educational Focus or Major _____
4. Occupation or Job Title _____
Describe the nature of your work _____

II. HANDEDNESS

5. Which picture most closely resembles the way you hold a pencil? Mark A, B, C, or D.

A ☐   B ☐   C ☐   D ☐

6. Strength and direction of your handedness: Mark A, B, C, D, or E.

A ☐	B ☐	C ☐	D ☐	E ☐
Primary Left	Primary Left Some Right	Both Hands Equal	Primary Right Some Left	Primary Right

III. BEST/WORST SUBJECTS

Thinking back to your best/worst subjects in elementary or secondary school please rank the following subjects with a 1, 2, or 3 on the basis of how well you did. Rank all three subjects; 1 is best, 2 is second, 3 is third best. Record your ranks in the boxes, and on the answer sheet, if it is provided.

☐ 7. Math   ☐ 8. Foreign Language   ☐ 9. English

IV. WORK ELEMENTS

Indicate your response to each of the work elements below using the following key:

5 — Work I do best of all   3 — Neutral   2 — Work I do poorly
4 — Work I do well   1 — Work I do worst of all

10. ___ Analytical
11. ___ Administrative
12. ___ Conceptualizing
13. ___ Expressing Ideas
14. ___ Integration
15. ___ Writing
16. ___ Technical Aspects
17. ___ Implementation
18. ___ Planning
19. ___ Interpersonal Aspects
20. ___ Problem Solving
21. ___ Innovating
22. ___ Teaching/Training
23. ___ Organization
24. ___ Creative Aspects
25. ___ Financial Aspects

V. KEY DESCRIPTORS

Select the eight adjectives which best describe the way you see yourself and mark a "2" by each. Then change a single "2" to a "3" for the adjective which best describes you. Mark the seven "2's" and one "3" on your answer sheet, if it is provided.

26. ___ Logical
27. ___ Creative
28. ___ Musical ·
29. ___ Sequential
30. ___ Synthesizer
31. ___ Verbal
32. ___ Conservative
33. ___ Analytical
34. ___ Detailed
35. ___ Emotional
36. ___ Spatial
37. ___ Critical
38. ___ Artistic
39. ___ Spiritual
40. ___ Rational
41. ___ Controlled
42. ___ Mathematical
43. ___ Symbolic
44. ___ Dominant
45. ___ Holistic*
46. ___ Intuitive
47. ___ Quantitative
48. ___ Reader
49. ___ Simultaneous
50. ___ Factual

* (Can see the forest as contrasted with the trees.)

VI. HOBBIES

Indicate all hobbies you are actively engaged in by marking a "3" for your major hobby, "2" for primary hobbies and "1" for your secondary hobbies.

51. ___ Arts/Crafts	59. ___ Gardening/Plants	67. ___ Sewing
52. ___ Boating	60. ___ Golf	68. ___ Spectator Sports
53. ___ Camping/Hiking	61. ___ Home Improvements	69. ___ Swimming/Diving
54. ___ Cards	62. ___ Music/Listening	70. ___ Tennis
55. ___ Collecting	63. ___ Music/Playing	71. ___ Travel
56. ___ Cooking	64. ___ Photography	72. ___ Wood Working
57. ___ Creative Writing	65. ___ Reading	(other) _____
58. ___ Fishing	66. ___ Sailing	_____

VII. ENERGY LEVEL

73. Thinking about your energy level or "drive", SELECT the ONE which best represents you. Mark A, B, or C.

A☐   B☐   C☐
"Day Person"   "Day/Night" Equally   "Night Person"

VIII. MOTION SICKNESS

74. Have you ever experienced motion sickness (nausea, vomiting) in response to any kind of vehicular motion (such as car, boat, plane, bus, train, amusement ride)? Number of times: Mark A, B, C, or D.

A☐   B☐   C☐   D☐
None   1-2   3-10   More than 10

75. Can you read while traveling in a car without stomach awareness, headache, nausea or vomiting? Mark A or B.

A☐   B☐
Yes   No

IX. ADJECTIVE PAIRS

Which word or phrase in each pair is more descriptive of yourself? Mark only A or B even if the choice is a difficult one. Do not leave any questions unmarked.

	Column A	Column B		Column A	Column B
76.	☐ Conservative	☐ Empathetic	88.	☐ Imaginative	☐ Sequential
77.	☐ Analyst	☐ Synthesizer	89.	☐ Original	☐ Reliable
78.	☐ Quantitative	☐ Musical	90.	☐ Creative	☐ Logical
79.	☐ Problem Solver	☐ Planner	91.	☐ Controlled	☐ Emotional
80.	☐ Controlled	☐ Creative	92.	☐ Musical	☐ Detailed
81.	☐ Original	☐ Emotional	93.	☐ Simultaneous	☐ Empathetic
82.	☐ Feeling	☐ Thinking	94.	☐ Communicator	☐ Conceptualizer
83.	☐ Interpersonal	☐ Organizer	95.	☐ Technical Things	☐ People Oriented
84.	☐ Spiritual	☐ Creative	96.	☐ Well Organized	☐ Logical
85.	☐ Detailed	☐ Holistic	97.	☐ Rigorous Thinking	☐ Metaphorical Thinking
86.	☐ Originate Ideas	☐ Test & Prove Ideas	98.	☐ Like Things Planned	☐ Like Things Mathematical
87.	☐ Warm, Friendly	☐ Analytical	99.	☐ Technical	☐ Dominant

X. EXTROVERSION/INTROVERSION

100. Where would you place yourself on this scale? Mark an "X" on the scale between extrovert and introvert.

EXTROVERT   INTROVERT

|———|———|———|———|———|———|———|———|

APPENDIX C

NAME _____ HERRM ..RAIN DOMINANCE   GROUP _____
ADDRESS _____ CONSO. TED SCORE SHEET   OCCUPATION _____
                                    : .81 by Ned Herrmann   MALE _____ FEMALE _____

100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Left   Right
Hemisphere   Hemisphere
Dominance   Dominance

KEY
DESCRIPTORS

| Analytic | Logical | Mathematical | Rational | Critical | Quantitative | Factual | | Conservative | Controlled | Sequential | Detailed | Dominant | Verbal (Articulate) | Reader (Technical) | | Reader (Personal) | Verbal (Talker) | Intuitive (Feelings) | Symbolic | Spiritual | Musical | Emotional | | Spatial | Simultaneous | Synthesizer | Holistic | Intuitive (Solutions) | Artistic | Creative |

WORK
ELEMENTS

| Analytical | Technical Aspects | Problem Solving | Financial Aspects | | Organization | Planning | Administrative | Implementation | | Teaching/ Training | Writing | Expressing Ideas | Interpersonal Aspects | | Integration | Conceptualizing | Creative Aspects | Innovating |

BEST/WORST SUBJECTS   Math   Math/Foreign Language   Foreign Language   English/Foreign Language   English

EDUCATIONAL MAJOR   L   LL   C   LR   R

OCCUPATION   L   LL   C   LR   R

HOBBIES   L   LL   C   LR   R

LANGUAGE CENTER   Left □   Distributed □   Right □

HANDEDNESS   Strong Right   Strong Right/Some Left   Mixed   Strong Left/Some Right   Strong Left

MOTION SICKNESS   I   II   III   IV   V

ENERGY LEVEL   Day   Equal   Night

ADJECTIVE PAIRS   □ Left   □ Lower Left   Lower Right □   Right □

TOTAL SCALE SCORES   □   □   □   □

INTROVERT/EXTROVERT   Introvert   Extrovert
                      □ □ □ □ □ □ □ □ □

CEREBRAL

CEREBRAL LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

CEREBRAL RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

Code:
1211

LEFT MODE

RIGHT MODE

DOMINANCE PROFILE

Controlled
Conservative
Planner
Organization
Administrative

LOWER LEFT

Interpersonal
Emotional
Musical
Spiritual
Talker

LOWER RIGHT

LIMBIC
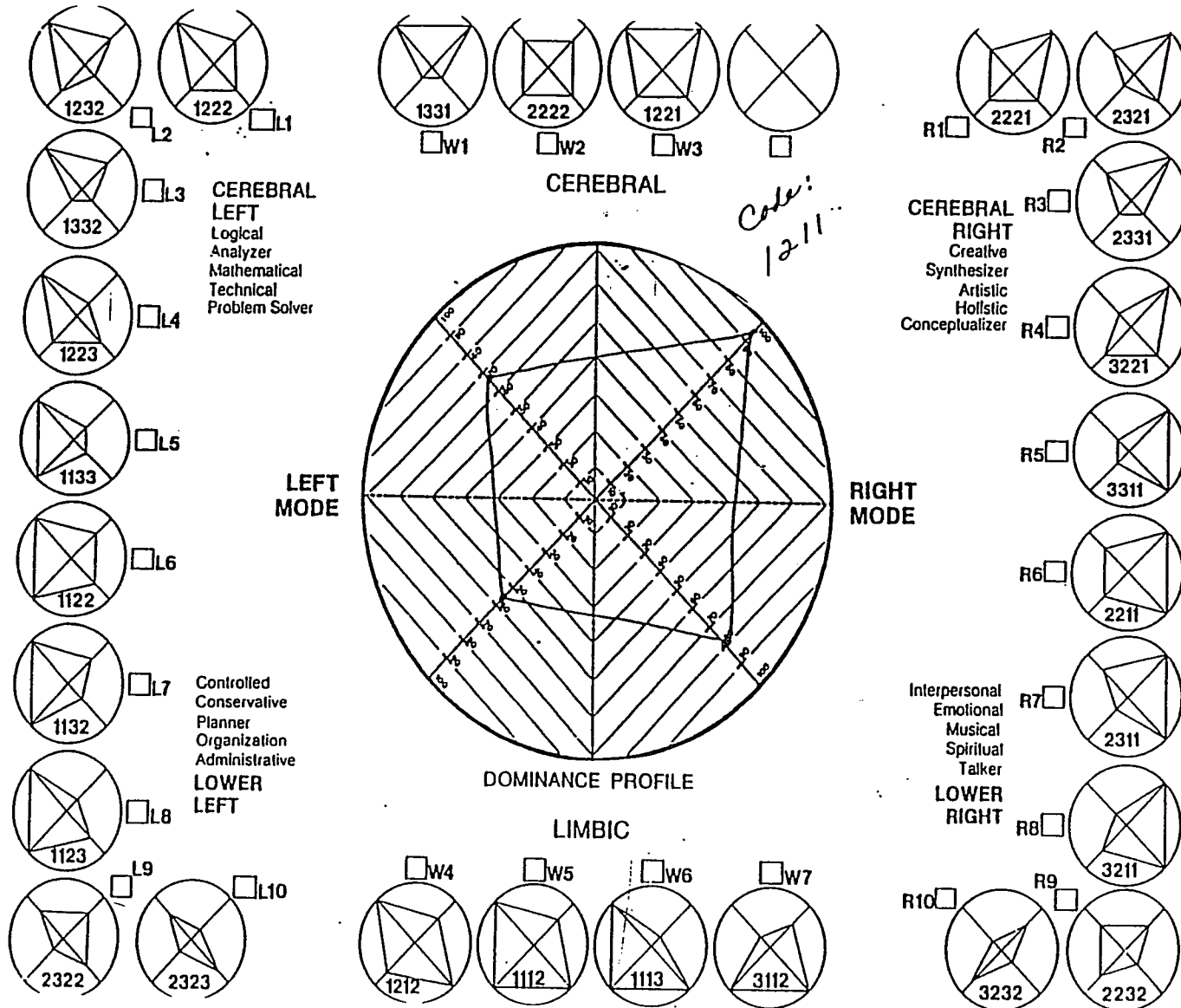
Brain Dominance
Scoring Worksheet

Scores Using Overlay Scoring Keys	Left L	Lower Left LL	Lower Right LR	Right R
Side 1 PS	25	19	39	35
Side 2 PS	7	12	12	15
20 Questions	✕	2	✕	9

Scores Using Tables 1, 2, and 3				
Best/Worst Subj. (10 pts.)	6	0	0	4
Occupation (8 points)	6	2	0	0
Educ. Major (6 points)	1	3	2	0

Raw Score Totals (Sum numbers in columns)	45	38	53	63
Scaled Score (Multiply Raw Score Total by 1.5, or see Table 4)	68	57	80	95

Profile code (e.g. 1232) from
scale scores
67 to 100 = 1; 34 to 66 = 2
2 to 33 = 3

1	2	1	1

Total Left and Right

125	175

Total Left Score (Left Plus Lower Left Raw Score)   Total Right Score (Right Plus Lower Right Raw Score)

MEMO CAPTURE of ADJECTIVE PAIR DATA

L	L/L	L/R	R
5	7	5	6

APPENDIX D

MEMORANDUM

To: Female high school principals in schools of
        excellence throughout the Southeastern United
        States

From: Patricia B. Harris
        University of North Carolina, Greensboro

Re: Dissertation--"Leadership Styles of Female Principals
        in High Schools of Excellence--Profiles in
        Excellence"

Research attempting to identify characteristics of effective
educational leaders has been in the forefront of educational
magazines and reviews for years. Many researchers have
attempted to investigate leadership styles in the hopes of
finding "the right one" for education. This has been
impossible since the effective educational leader seems to
base his/her style on the given situation.

I have a special concern for the scarity of females in
important leadership positions in education. I have done
extensive research into the female education leader and
found that women really do make excellent principals, yet
statistics show us that only 11% of the principals in the
United States are female. Most female principals are
concentrated in elementary schools rather than high schools.
Consequently, I am researching relationships between female
high school principals and the schools of excellence they
represent.

The problem this study will address is to initiate a
combination of cognitive and preference patterns and
leadership styles research in education administration.
Results of the study should add to the literature of
educational leaders from the perspective of the female. The
study will explore the relationships between the cognitive
styles and the leadership styles of female secondary school
principals in schools of excellence.

The study will be concentrated in those Southern states
belonging to the Southern Association of Colleges and
Schools, (SACS). In all of the states there are only 19
female high school principals in schools of excellence.
Four of these principals have taken new positions, which
leaves fifteen possible candidates for the study.
Obviously, you are one of those candidates.

Would you please assist me in my study? The study will
consist of a brief questionnaire, Hersey and Blanchard's
Lead Self and Lead Other which takes approximately ten

minutes each, Ned Herrmann's _Brain Dominance Survey_ which
will take approximately 15-20 minutes, and a brief telephone
interview with me. I would also like to do an on-site visit
of at least four schools to complete my profiles. If you
are willing to do this I would like for you to check yes on
the enclosed post card and drop it in the mail. Your
participation in this study will provide valuable
information to me and female educational leaders in general
and will be greatly appreciated.

Your name and the name of your local unit will not be used
in the study. However, I shall send you the results of my
research.

Thank you in advance for your time and cooperation.

APPENDIX E

Name_____

Please complete the following information:

1. Number of years you have served as a principal:_____

2. Numnber of years you have served at this school:_____

3. Size of the school system where you are employed:

   1-5000 students_____; 5001-10,000 students_____;
   10,001-20,000_____; 20,001 and above_____

4. Years you were a teacher in the following grades:

   (Check all that apply) K-5_____; 6-8_____;
   9-12_____

5. Your highest degree completed:

   Master's_____; 6th Year_____; Doctorate_____

6. In what type of community setting is your school
   located? rural_____; urban_____; inner city_____;
   suburban_____; other_____

7. Please give a brief history of your career path (ex.
   elementary teacher to specialist to elementary principal
   to secondary principal).

8. Why did you want to become a secondary school principal?

9. Age now_____; age when you became principal of this
   school_____

10. Marital status: _____married; _____single;
    _____divorced; _____widow

    Number of children_____; ages_____.

APPENDIX F

LEAD
SELF
Leadership Style/Perception of Self

Developed by Paul Hersey and Kenneth H.Blanchard

Your name _____

PURPOSE

The purpose of this instrument is to evaluate your perception of your leadership style in terms of "telling," "selling," "participating," or "delegating," and to indicate whether the style is appropriate in various situations.

INSTRUCTIONS

Assume you are involved in each of the following twelve situations. Each situation has four alternative actions you might initiate. Read each item carefully. Think about what you would do in each circumstance. Then, circle the letter of the alternative action choice which you think would most closely describe your behavior in the situation presented. Circle only one choice.

After you have circled one choice for each situation, use the "LEAD Directions for Self-Scoring and Analysis" to score and array the data.

Leader Effectiveness & Adaptability Description

Reprinted from: P. Hersey, LEAD Self: Leaderhip Style/Perception of Self , Escondido, CA: Leadership Studies, Inc., 1988
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LEAD

OTHER

Leadership Style/Perception of Other

Developed by Paul Hersey and Kenneth H. Blanchard

PURPOSE

The purpose of this instrument is to evaluate your perception of the leadership style of the leader named to the right, in terms of "telling," "selling," "participating," or "delegating," and to indicate whether the style is appropriate in various situations.

INSTRUCTIONS

Assume _____ is involved in each of the following twelve situations. Each situation has four alternative actions this leader might initiate. Read each item carefully. Think about what this person would do in each circumstance. Then, based on your experience with this leader, circle the letter of the alternative action choice which you think would most closely describe the behavior of this person in the situation presented. Circle only one choice.

After you have completed this form, return it to:

_____

so that person may use the "LEAD Directions for Self-Scoring and Analysis" to score and array the data.

You are this leader's (check one):
- ☐ Boss
- ☐ Associate
- ☑ Follower

Reprinted from: P. Hersey, LEAD Self: Leaderhip Style/
Perception of Self, Escondido, CA: Leadership Studies,
Inc., 1988
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Leader Effectiveness & Adaptability Description

LEAD Matrix

Leader
Effectiveness &
Adaptability
Description

**DIRECTIONS FOR MATRIX
SCORING AND ANALYSIS**

Developed by Paul Hersey

LEAD MATRIX SUMMARY

This scoring form for the LEAD instrument provides feedback on several key
leadership variables. If scoring the LEAD-SELF, your data will represent self-perception
of leadership style. If scores are from LEAD-OTHER, the data represent perceptions of
others and therefore leadership style.

PRIMARY STYLE(S)

Primary or Basic Style(s) is defined as the quadrant or quadrants in which you
have the greatest number of responses.

SECONDARY STYLE(S)

Secondary or Supporting Style(s) includes any quadrant, other than Primary Style
quadrant(s) in which there are two or more responses.

STYLE RANGE AND FLEXIBILITY

Style Range and Flexibility refers to the total number of quadrants in which there are
two or more responses. For example, if Primary Style(s) are Quadrants 2 & 3 and
Supporting Style is Quadrant 1, Style Range includes Quadrants 1, 2 & 3. Three or more
responses in a quadrant indicate a high degree of flexibility in the use of behaviors in
that quadrant. Two responses in a quadrant indicate moderate flexibility. One response
in a quadrant is not statistically significant, and therefore it's difficult to predict
flexibility into that style configuration.

STYLE ADAPTABILITY

While Style Range refers to the extent to which style can be varied, Style Adaptability
indicates the degree to which changes in styles are appropriate to the level of readiness
of the people involved in different situations. Adaptability score in the 30 to 36 range
indicate a leader with a high degree of adaptability. Scores in the 24 to 30 range reflect
a moderate degree of adaptability. If adaptability scores are less than 24, it indicates a
need for self-development to improve the ability to diagnose task readiness and use
appropriate leader behaviors.

APPENDIX G

LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE—Form XII

Originated by staff members of
The Ohio State Leadership Studies
and revised by the
Bureau of Business Research

Purpose of the Questionnaire

On the following pages is a list of items that may be used to describe the behavior of your supervisor. Each item describes a specific kind of behavior, but does not ask you to judge whether the behavior is desirable or undesirable. Although some items may appear similar, they express differences that are important in the description of leadership. Each item should be considered as a separate description. This is not a test of ability or consistency in making answers. Its only purpose is to make it possible for you to describe, as accurately as you can, the behavior of your supervisor.

Note: The term, *"group,"* as employed in the following items, refers to a department, division, or other unit of organization that is supervised by the person being described.

The term *"members,"* refers to all the people in the unit of organization that is supervised by the person being described.

Published by

College of Administrative Science
The Ohio State University
Columbus, Ohio

APPENDIX H

WHOLE BRAIN MODEL

(The Model upon which the Whole Brain Solutions are based)

Cerebral Mode
Thinking Processes

UPPER LEFT

UPPER RIGHT

Ⓐ

LOGICAL
ANALYTICAL
QUANTITATIVE
FACT BASED

Ⓓ

HOLISTIC
INTUITIVE
SYNTHESIZING
INTEGRATING

Left Mode
Thinking Processes

Right Mode
Thinking Processes

PLANNED
ORGANIZED
DETAILED
SEQUENTIAL

EMOTIONAL
INTERPERSONAL
FEELING BASED
KINESTHETIC

Ⓑ

Ⓒ

LOWER LEFT

LOWER RIGHT

Limbic Mode
Thinking Processes

HERRMANN BRAIN DOMINANCE PROFILE

CEREBRAL MODE

UPPER LEFT

Logical
Analyzer
Mathematical
Technical
Problem Solver

Ⓐ

Ⓓ

UPPER RIGHT

Imaginative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organizational
Administrative

Ⓑ

Ⓒ

Interpersonal
Emotional
Musical
Spiritual
Talker

LOWER LEFT

LOWER RIGHT

LIMBIC MODE

© 1986, Ned Herrmann

Source: Herrmann, N. (1988 b). The application of brain dominance
technology to teaching and learning. Booklet within the
Survey Form Kit. Lake Lure, NC: Herrmann Brain Institute.
p. 4.

HERRMANN BRAIN DOMINANCE PROFILE
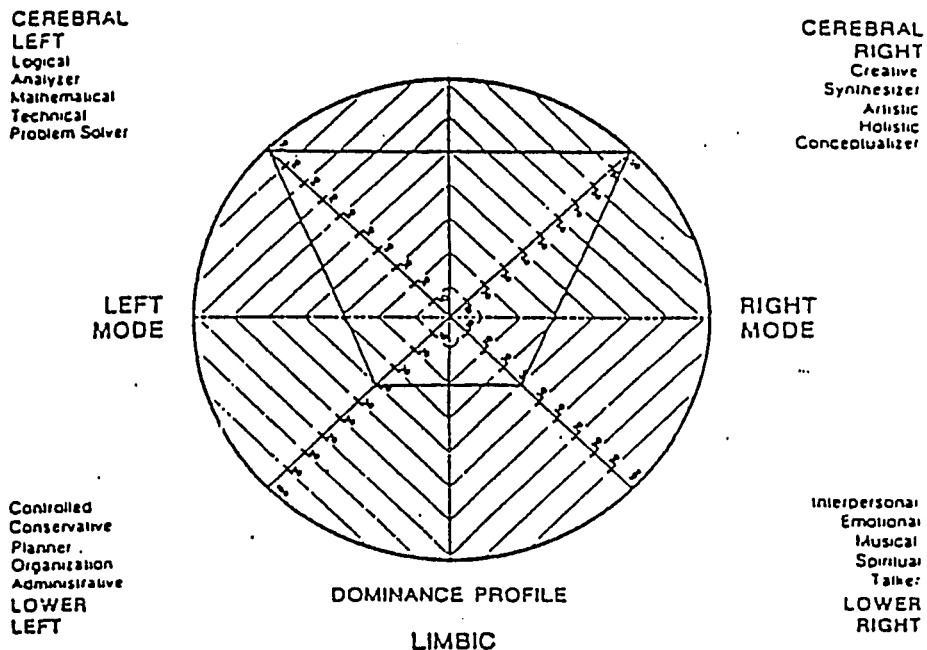
CEREBRAL
LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER
LEFT

Interpersonal
Emotional
Musical
Spiritual
Talker
LOWER
RIGHT

DOMINANCE PROFILE

LIMBIC

Source: Hermann, N. (1988 b). The application of brain dominance
technology to teaching and learning. Booklet within the
Survey Form Kit. Lake Lure, NC: Herrmann Brain Institute.
p. 4.

APPENDIX I

Case Study Number One

Setting:

The high school is on a 50 acre wooded tract of land only a few miles from the bustling capital of one of our Southern states. It gives the allure of "ruralism" as I pull into the drive-way nestled between the East and West Buildings amid tall stately trees in a serene setting. The campus is neat and orderly; these qualities are accentuated in the various buildings. The school has a short tradition. It began in 1979 with the closing of the neighboring junior high and the opening in 1980 of the county's first magnet high school—a combination of the existing high school (West Building), and the closed junior high school, (East Building). The school's program offers a vast array of electives not available at any other high school in the state. In addition, the daily schedule of eight class periods instead of seven allows students to pursue advanced study in selected subjects.

The curriculum allows students to concentrate in one of three special fields of study: visual and performing arts, math and science, and the humanities. The facilities in the visual and performing arts feature two dance studios, two art studios, a piano lab, and a TV studio that rivals many college facilities.

In math and science, the facilities offer three computer labs. Students can take a block of two periods in a number of areas including math, science, visual and performing arts.

The humanities department has won many awards of excellence. In 1985 the school received recognition from the National Council of Teachers of English, and in 1983 the school was honored by the National Faculty for its outstanding English program. According to the principal, it is one of the best English Departments in the country.

Other varied course offerings include eight foreign languages: Japanese, Chinese, Russian, French, German, Spanish, Latin, and Italian. The school's dance program

includes ballet, jazz and modern dance classes. In math there are several advanced level courses including: pre-calculus, statistics and probability, and Advanced Placement calculus. In the Fall of 1988, new engineering courses complete with state-of-the-art equipment were offered. There are advanced placement courses offered in English, calculus, physics, chemistry, biology, American history and European history.

Not only has this school been labeled a School of Excellence in 1983, but it also was one of 19 schools nationwide to receive a grant from the Carnegie Foundation for the Advancement of Teaching in 1985.

> It is the school's task to reemphasize the value and importance of education in an individual's quest to live a meaningful and productive life. The administration, staff, and students accentuate the achievements and the significant contributions made by individuals and groups of students. The opportunities for student decision making, for campus involvement, and for increased individual pride and recognition in school related activities reaffirm and uphold the value and importance of the school's mission, (Secondary School Recognition Program Form).

The principal believes that students have worth and can make a contribution to their school, to themselves and to society. Freedom of choice and thus responsibility for decisions made have contributed to the success of the magnet school. Many students, (approximately 40%), attend because they choose to. Most students feel a sense of ownership. Teachers exhibit high expectations for all students. The students themselves are living up to these expectations, (Secondary Schools Recognition Program Form).

This was not always the case at the school. The beginning years were turbulent. The magnet school had been created in an attempt to fill empty classrooms due to declining enrollment and to bring suburban white students into the facility to achieve racial balance. In April of 1982, the superintendent changed administrators at many of the

county's schools—thus entered principal one. Before school started in August she was the prime motivator in an increased enrollment of approximately 600 students.

This principal began her professional education career as an English teacher. After teaching for five and one half years she became a guidance counselor. At that point in her life she had not considered going into administration—but, her principal came in for a conference one day with a list of five names he was considering for assistant principal. He sincerely asked her which man she thought would make the best candidate. She looked at the list and then said: "I would make a better assistant principal than any of these names you are considering!" His reasoning for not having first considered her was because his assistant principal would have to get the supplies. This would entail carrying large boxes—he didn't figure a woman could handle that. Her reply was: "I'm the best candidate—I can organize and get things done—I can get students to carry the boxes!" Thus began her career as an administrator. When her husband's job brought them to this city, she became a college administrator; shortly thereafter she became the assistant principal of this school. From there she moved to a principalship at a suburban junior high school. She was liked and respected at her junior high, and when she made the transition back to the high school, many students from the suburban sections of the county followed her. This increased the numbers of the majority race students, (taken in part from the Secondary School Recognition Program—High School Information Form). When asked how the school got turned around, she replied: "by a dedicated team of administrators and teachers working 15 hours a day". In the process, some teachers and administrators left, but she got to "hand pick" most of her staff until now she feels that she truly has an "Excellent team" for the school.

Characteristics of an Effective/Successful Female High School Principal:

One concept of leadership is modeled on the success of Lee Iacocca. According to him, power is the basic energy needed to initiate and sustain action. Leadership is the wise use of this power. This principal has this leadership "power": "I have lots of energy—I know what is going on—I can analyze and solve problems." One of her assistant principals stands in awe: "Good luck! You'll have a hard time keeping up with her, I've stopped trying!" One of the students in the hall reflects, " she takes time to ask about "me" and what's going on in my life".

Leading is influencing and guiding in direction, course, action and opinion, (Bennis and Nanus, 1985, 21). This principal has the capacity to influence and organize meaning for the members of the entire organization. She has a relaxed, easy manner with her faculty— they look to her for guidance and they value her opinion... Right in the middle of an already hectic morning workmen come with a dump truck load of pine mulch, and various plants, shrubs, and flowers. Her "Beautification Agenda" is rolling. She directs the "dumping" and then "runs" to find the French teacher in charge of beautification. He is so excited about the joint adventure of school beautification (Saturday about 50 students, teachers, and the principal will plant the various offerings) that when all the plants are unloaded, he burst into the office with "you've got to come and see them!" I was invited too. Off we go trudging through the mud—yes, there is definitely an "air of excitement" at this school.

The principal translates her agenda directly to her students and faculty. I sat in on a pre-observation conference with one of her Latin teachers. In only four minutes time she knew everything he was going to present that class period, how he felt about the class, whether there were any unusual problems she should be aware of and about the class seating chart—part of her agenda is to learn every student's name. And the great thing about this four-minute conference was that the teacher was put at ease so that he could

immediately respond knowledgeably and succinctly to her queries.

I observed her as she had conferences with students—she didn't treat them any differently. They all were put at ease—and they knew that she was listening to them. One student came in to ask about a F.H.A. food service project. Imediately the principal said, "Thanks for coming—tell me what you are planning". The student ended his remarks with "it will be supervised", and we have already talked to David". Students knew the principal's agenda—they followed proper channels—and went up the chain of command.

Being a leader is using one's self creatively. As I was introduced to one of the P.E./ Coaches of the school, he remarked to the principal: "I believe it is about time for you to come back to the gym and 'run' with the class—I just finished working out with them and it really keeps you in shape!" Principal: "I know. I'll bring my jogging clothes one day next week". Coach: "Great! The kids really enjoy having you in there". (Author's note: the principal gets rid of much of the stress of school life by jogging or going to the local "Y" and exercising several times a week—she looks to be in great shape!)

Excellent educational leaders are visionary. The principal told me that in her vision for her school she saw herself as being the catalyst—the one that kept things "stirred-up". She related that the first year her school received the Excellence Award, she did not feel that they were quite ready even to try for the recogniton. Now she feels that her school is reaching excellence—not that the school is perfect. But her vision is one of striving for perfection in educational excellence.

Observation

This high School has a large, divided campus. As I enter the building I am struck by the friendliness of the students and staff. I enter at 7:05 A.M. and the halls are "humming" with students. They do not know who I am, but many stop what they are doing and smile

and speak. When I get to the principal's office she is busily poring over documents with her back to the door.

She is a tall, slender woman with curly graying hair. When she turns around to face me I am immediately drawn to her friendly eyes and smile upon her face. I am to find out during the day that the smile never leaves, she is the same to visitors, teachers, and students. She immediately says, "I hope you meant what you said about me continuing with my day's work...I'm really behind and I have a heavy schedule to keep" (author's note: I find she is behind because she is on a steering committee for the state superintendent of schools and also on the steering committee for a major school legislative act. She has been out of school for a few days working on these committees.). As I was reassuring her, a student came to her office door. "I was just checking about the announcements." Principal: "Tell me what you're going to do... where are you going to meet...Well, you've got this organized, almost". She immediately helps him and the organization is complete. At 7:35 A.M. she begins her pre-observation conference with a first year Latin teacher. He explains the class assignment and she quizzes him on his feelings about the class and unusual problems. At 7:39 he leaves and she says: "He is an excellent teacher." As she starts on more paper work she exclaims:

> I want kids to be academically successful no matter what the race, creed or ethnic group. This school goes from the very brightest to special education; 60 per cent of the students in this school are assigned here, only 40 per cent come from other parts of the county. We have classes for autistic students, trainable mentally handicapped students and gifted and talented students. It keeps us jumping.

> I like nurturing and working with special needs students, but I also like nurturing my faculty—rewarding them so they will feel needed. I involve people, that's my style. I believe in working as a team—well not always—but usually I like to be partners with my teachers and with my parents.

Everyone needs to get involved. I have 150 faculty members. I believe in the chain of command—teachers to chairperson—chairperson to assistant principal—assistant principal to me.

I ask her if she feels that she is a risk taker. Her reply: "Just being here is a risk! I did not apply for this job, I was asked to come. I was challenged by the opportunity. I had some basic understanding of the school since I had been here before as assistant principal, so I came".

The bell rings for the end of first period and we are again out in the halls preparing to observe an Italian class. She stops to talk to a student and puts her arm around his shoulder. I don't hear what is being said, but after their conversation she says, "he's one of my projects". We hurried down the hall to beat the tardy bell greeting students all the while.

In the classroom she immediately gets her folder out for on going note taking. She is very detailed—she seems to know what is going on in the classroom. It is a good class—she is totally involved in it—so am I. She pulls her chair over to look at the textbook with a student. During the directed study time, she works on putting names to faces of the students in the class. As the bell rings she puts her notes away, puts her chair back in order and compliments the teacher.

Back in the hall again...Oops, a pair of irate parents are waiting to see her. She goes in alone and closes the door. Thirty-nine minutes later they all emerge, the principal still with her smile, the parents somewhat appeased. Next two girls enter to complain about their "D" in math. The principal is on top of the situation—she looks up test scores—she phones the mother to offer help. "They can't move out—but the teacher is willing to help after school—we always have a math teacher available after school if students sign up. This gifted and talented class is a rapid pace class—the girls have the ability as indicated

by their achievement test scores. Maybe peer help would be the answer, (as she is looking up the two students' address). Oh, I see that you live in Stanley, the president of our Honors Society, Bill, also lives there. He is doing some tutoring—I'll check with him and get back to you (as she is cleaning off her desk). Note: She sees Bill later in the day and finds that he works at the same place the two sisters do. She calls her secretary on the walkie-talkie to get the phone number off her desk for Bill when he comes by—he will call the mother.

At 11:33 A.M. we are back in the office returning phone calls when the exchange student from Chili comes in. He is very hesitant, but the principal makes him feel at ease. He has decided that since the courses he is enrolled in would not count in Chili when he goes back in December, he doesn't want to take the tests. The principal laughingly says, "you just want to be lazy—I'll bet you have all "A's" and "B's". He does. She is very jovial and makes him feel good as she denies his request. She goes on to tell him that he would enjoy December because the faculty and administration have an "Elf Show" where they dress up and entertain the students. He feels good when he leaves. Now one of the assistant principals comes in to check on the two girls from algebra. The principal tells him everything is fine. They talk briefly about a student who has been suspended. Back in the halls again greeting students and making a dash for fourth-hour Latin class. Again, she is totally involved in the class happenings as she pulls her desk over to share books with a student. She writes another detailed account. I notice she is especially interested in every word of praise from the teacher, and carefully notates it.

Back in the office, the phone rings about another student—this is a student who is taking a class at State University. She refers to his advanced placement exams—but maintains a firm stand on school policy. This policy allows students to take a subject at the university only if the course is not offered at the high school. Apparently this course is offered and the student has not taken it at the high school. While she is talking on the

phone she is reading through a file full of notes—initialing some. Her secretary comes in with some copies she has requested.

She announces that it is time to check on the plants, make rounds, and talk to a few people. In "making the rounds" I got to meet four of the five assistant principals—all are singing the principal's praises—all speak with concern about whether I can keep up with her! As we go to West Building, she stops to greet a student. She asks him if he is the one that started the petition. He isn't, but he did sign it. She takes time to explain the grievance procedures. She says quite honestly: "I didn't know what you wanted me to do with the petition since it was about another student." The young man says: "We just wanted you to be aware of it—we didn't expect you to do anything with it." He is very nice and relaxed with her—she is likewise her friendly self, (whatever the petition is about, the principal respects the students' rights to draw it up—she is not angry).

"I want to go check on John, (he was the student she had talked to in the hall that morning). He said he was going to be in class this afternoon. He is one of my projects in our at-risk club." I ask more about the club—STAT. She says it is a way for all at-risk kids to have a sponsor. Teachers and administrators volunteer to be in the organization. They each have about four project students to work with on an individual basis. She has lost one of her's—he dropped out the week before. But the program is really working. We make some more stops, chatted with students in the West cafeteria, (she remarks: "I never have time for lunch, but if you want to eat, now is the time". I don't; so we move on), and talk to the security guard about the student who was suspended—the security guard confirms what the assistant principal has already told the mother.

We have covered the entire campus; stopped to talk to senior students coming back on campus (senior privilege allows seniors to eat lunch off campus); and now were headed back to the main office, (1:07 P.M.).

She goes to the phone to call her fifth assistant principal (the only other female administrator on the staff). She finds out that the assistant has gone home sick—she is very concerned for the assistant principal and even offers to go to her home because she is so sick.

We talk briefly before the final period of the day. She feels that other than the time when she first became assistant principal she has never been discriminated against because of sex. She feels that she has not had many mentors along her career path—but she does talk fondly of one of her principals—the one that was at this school when she was assistant principal. She talks about the "turn-around" the school has made. She says: "When the NEA highlighted the school, people began to believe in it. I see myself as a catalyst—I get things stirred up! In the beginning years we all had to work hard—I had to have firm discipline. In 1982 there were a lot of empty classrooms—there were only 1,350 students. But in the fall of that year we increased our enrollment to 1,900. This high school has always been the "step-child" of all the other high schools in the system. We had to do an excellent job of selling this school and its program. We all worked 15 hour days, five, six, and seven days a week. Now, I usually just have two or three 15 hour days!"

The bell rings and time for another teacher observation. After this class she will go to a steering committee meeting about one of the library books in the school's library. A parent has contested its contents. There is never a dull moment!

Conclusions

Principal number one identifies with her school. If it is beautification, she helps "beautify"; if it is the athletic field, she suits up; if it is an at-risk student, she forms a special club for them—STAT; if it is any student or teacher, her door is always open to them. That is using one's self creatively as a leader.

Humanistic and professional are terms which convey the highest possible praise to an educational administrator. This principal believes in recognizing both teachers and students—she sends hand written notes for jobs well done; she has a time during faculty meetings where she acknowledges and publicly praises teachers and students; she writes articles for the school newsletter recognizing and praising teachers and students; she places letters of praise in faculty folders at the school system's personnel office; she designs staff development with teachers in mind —she says:

> I like to keep people feeling like they are growing professionally—they need to see new ideas and new ways of doing things—they get to choose what they want to be involved in. I like to nurture, but I also like to expose—to provide opportunities to grow.

This principal uses a non-authoritarian leadership style based on participatory decision-making. Some of her actions during the regular school day include: talking with followers and then setting goals; doing what she could to make her "group" feel important and involved; working with her "group" in problem solving; and incorporating group recommendations. (She receives praise by co-workers for demonstrating these attributes.) She relates well to her co-workers; they work together to maintain a high standard of conduct in setting the pace for work that the institution must accomplish— they are involved in scholarly academic matters as they pursue excellence.

The principal gives emphasis to the individual differences among pupils, on the social and emotional development of her pupils, on the "deviant" pupils, and on the technical skills of teachers. She views her principalship as that of educational leader. She uses expressive language that encourages community building, is more polite, cheerful, respectful, and shows appreciation to her teachers, staff, and students. She enjoys her job;

those that work with her enjoy their job; and the students enjoy coming to school. And that has made "all the difference" as together they pursue excellence in education.

Case Study Number Two

Setting:

School number two is surrounded by a beautiful upper-middle class residential suburb of a large city in the southeastern United States. Located on a spacious 14-acre campus, it is a modern treatment center consisting of a school and administration building and three residences housing up to 44 adolescent girls. The campus is equipped with a swimming pool, volleyball court, tennis court and softball field. Students attend weekly exercise and aerobic classes. They are encouraged to participate in community athletic activities and attend cultural events as well. The school, founded in 1843, is a 24 hour residential treatment facility for troubled adolescent girls between the ages of 13-17 who need a highly structured, though loving, environment to build a more satisfying and rewarding life.

The school is part of a vast program of service to people in need all over the world. As a result of this stance, it was a logical step for the state's Baptist Home for Children to turn to this school to provide an optimum educational environment for the children residing in its newly opened crisis shelter. On October 17, 1989 the school administrators allowed both male and female students from the Baptist Children's Home Campus to attend daytime classes.

As is the case with the residential female students, these new students are provided an individual educational plan (IEP). This IEP allows students whose education has been interrupted or who have learning disabilities to make academic progress based on their own aptitude. It is especially beneficial to students experiencing crisis in their lives. The plan, developed by a multi-disciplinary team comprised of teachers, social workers, child care workers, psychologist and agency and parental representatives, is updated every

three months. Student progress is monitored at weekly evaluation meetings at which the multi-disciplinary team reviews teacher and staff assessments of student progress and needs.

A typical girl who comes to the school has experienced neglect and abuse and has resorted to running away, truancy and a variety of other self-defeating behaviors. Girls are referred to the school by personnel in school districts, juvenile court, and social service agencies. Not only are students provided with an IEP, but they also receive counseling and group living services that guide girls to mature behaviorally and ethically. Of the girls who complete the program, 80% successfully remain in the community, finish school, and do not return to the court system again. Two-thirds of the students are from out-of-state because this school is one of the few programs of its kind in eastern United States.

The school's director and faculty have modeled the philosophy for living in the residential facilities after Hersey and Blanchard's leadership styles profile (taken from the school's brochure). New girls are admitted to residence one, a highly structured facility with double the child-care staff. As they progress, the girls transfer to residence two which is less controlled and less closely supervised. The girls then move to residence three as a transition for returning to their families or as a preparation for moving into independent living. It is a community-oriented honor residence with private rooms for each girl.

School personnel believe that the students have the right to a quality education designed to meet their specific learning needs and abilities. The faculty and staff believe that all students can learn if given the opportunity to do so. They realize that some of their students have repeatedly demonstrated school failure and inability to cope with school expectations. Therefore, they are committed to provide them with positive academic and social experiences at the school. The faculty and staff hope to teach them successful strategies for coping with daily responsibilities both in school and in society. They

welcome input from students, parents and the community in designing the curriculum to meet individual learning needs and to fulfill the high school graduation requirements.

The average student at school number two is two or three grade levels behind in school. Faculty have developed a community school program for students which helps them "catch-up" so that they can be more successful when they re-enter public school. Since the program's inception only one of its participants has had to return to the on-campus school.

A Behavioral Management Levels Program is in place at the school to identify the successful behaviors students are expected to master and to provide incentives for achievement. Behavioral objectives are identified at six different levels of ability in the following categories: Dependability, Perseverance, Cooperation with Authority, Cooperation with Peers, Emotional Control and Study Skills. The educational process at this school is structured around these six levels. Students are challenged to progress and supported when they fail. In this process, whether they are trying to master math or typing or patience, they become aware that their choices influence consequences. Because the youth have little self-esteem and have been the victims of chaotic backgrounds, they fail to recognize that they can direct their own lives toward happiness and success. This school is often the last resort for kids who have not responded to counseling, foster homes and other special education services. The faculty and staff believe that this school gives students hope and courage to believe in themselves and their ability to succeed.

Because many of the girls have been drug users they are provided a substance abuse education program which enables adolescents to receive valid information concerning alcohol use and to examine their beliefs and attitudes regarding substance abuse. Students are also encouraged to attend the on-campus meeting of Alcoholics Anonymous and a community-based meeting of Narcotics Anonymous. The evidence of the effectiveness of the drug policy is the absence of drugs on campus and the ability of the students

who are working or attending community schools to remain drug-free.

Teachers at this school are concerned about the students under their tuteledge. They are respected for their expertise in a subject area and are actively consulted regarding curriculum decisions. Teachers are asked to give input on student behavior weekly. A faculty committee comprised of elected representatives meet with the principal throughout the year to establish policy and procedures for the school. The faculty committee developed the teacher evaluation instrument currently being used. Participatory management corresponds to the team approach of the school's program. A Program Planning Committee comprised of department heads and "grass roots" elected representatives of each department serves as a recommending body on all policy and procedures at the school (Secondary Schools Recognition Program).

The school program is a highly refined and dynamic approach to the needs of hard-to-manage, troubled adolescents whose problems are such that they can no longer remain in the community. The faculty do not profess to be a panacea for all students who have problems. The principal says:

> The girl with potential and ability, but who is not utilizing that ability and often is self-defeating and self-destructive, we do best with, because our specialty is inspiring and uplifting young people who have made serious mistakes and believe they have no hope.

Observation

Even though this school began in the 1840's, a new convent, school and residential halls were built in 1979. I enter this bright, modern facility at 7:15 on a beautiful Fall morning. The science teacher lets me in the only unlocked door (the doors are kept locked to prevent run-aways).

The principal bustles in at 7:20. (Author's note: Even though this principal was not the principal when the school received its excellence award, she was on the faculty and helped—she is also excellent.) She is very friendly and outgoing. She immediately begins to check on the students under her care. First she calls the crisis shelter to see what students she will receive from the Baptist Children's Home—it looks like there will be six. Next she calls the residential halls. At residence three everything is "ok" except one has an infected sinus. Principal two says, "we have an infirmary if we have sickness". As she phones residence two she frowns, "this isn't good news when they don't pick up the phone". The residential counselor finally answers and things are fine. In residence one there is one sick—but the big news is that word has come down that there are going to be some "runners" (term used for students who intend to run away from the facility). Principal two looks at me, "we'll have to be prepared to chase them".

> From looking at all these notes, I'd say it was a busy weekend—I have a teacher assembly first thing to go over all the cases. For the most part, the courts place students here because of truancy or abuse and we try to 'love them' back into a healthy relationship. We've checked on the students, now let's go check on my teachers!

At 7:45 A.M. the principal and I enter the faculty lounge. Six women and three men are carrying on an avid conversation about Friday's faculty soccer game. There is a great camaraderie among the teachers and the principal. They all participated in the soccer game. During this assembly one thing that stands out clearly is the evident concern this faculty has for its students. After going over the week-end problems the principal looks at her watch and abruptly says, "Let's go—it is time for the students to come to class and we must be prepared for the runners". We all troop outside as the students are released from their residences. One girl looked at me and said, "What did they do, hire a new person for

runners?" No one attempted to run this day. In fact the students came into school laughing and joking with one another and also with the teachers and principal.

At 8:05 A.M. students are in their classrooms and principal two says, "Now it is time for me to walk around to see that we're all here with smiles on our faces!" She goes first to the co-ed classroom, (students from the crisis center) and greets them with:

> I came to let you know you are part of our family—we love you a lot and cry tears when you leave. That's what we do here—we love you. When you make a mistake, I'll tell you—that's my job. We want you in school learning...

At 8:15 A.M. we are through with rounds. Principal two speaks of her perception of her job:

> During school hours my job is basically reactionary—I have to react to many situations—probably many situations which are not faced in a normal school environment. At least 60 per cent of the students have been sexually abused and 80 per cent have been physically abused. This is an entire community-at-risk and it is very challenging. We need more schools like this. I envision this school adding students that are at-risk that can still live at home. I would love to double my teaching staff and expand my day student membership.

The vice principal comes in to discuss releasing one of the students. Upon review of her case and talking with her teachers, they jointly decide that she has too many demerits and can not be released. The phone rings—the principal needs to "assist" a student to the learning center. "Well, the bell is fixing to ring—I like to be visible in the halls during class change." There were lots of hugs for students. One calls her momma. She talks informally with teachers who are also out in the halls—the students flock around her.

Positive feelings from constant reinforcement are quite evident.

At 9:40 A.M. we are back in the principal's office. The phone rings—one of the "sister's" mother died. The intercom sounds and the principal is off to deliver supplies to the science room.

At 10:00 A.M. there is a meeting with the vice principal, school social worker and pyschologist. The principal is "in charge", yet she seeks guidance from her co-workers. They discuss career development and the work release program. The principal comments, "our job is to reinforce—to give positive images. What's next?" Schedules for tomorrow (the last day before a holiday), faculty meeting, infirmary rules, whether students will lose break, and a student assigned to in-school suspension.

After the meeting (10:50 A.M.) a teacher comes in to discuss taking a student home for the holidays (student that would not have a place to go otherwise). Next on her agenda is an 11:00 meeting with the executive director. They touch base on various problems then the director tells me about using the Hersey and Blanchard styles in the three dormitories.

Lunch was an experience. Everyone eats at the same time. The principal confides, "this is the worst part of my job!" She eats quickly and gets up to "stand guard" on one side of the cafeteria; the vice principal is on the other side. The principal announces to the students that she will "check their signatures" when they leave (each student gets teachers to sign a form if they have obeyed all class rules—without signatures a student looses his/her 30 minutes of free time after lunch). Free time can be spent playing volleyball or going to the student lounge which has a t.v. and a newly installed nintendo game. The principal has to leave mid-way through the installation of the nintendo to get an ice pack for a student who hurt her hand on the punching bag.

We are back in the office at 12:27 P.M. We talk about the principal's leadership style:

I see the whole picture—I like to let people work on their own individual
details, but I still maintain a universal perspective. Oops, gotta run—it is
time to dismiss the crisis center kids and I need to speak to them before
they go.

Back in the office the principal is paying bills, studying case reports and doing documentation on individual students. At 1:25 P.M. there is a teacher conference. She encourages the teacher to order a writing project program—"it looks fantastic—and anything under $200 is safe to order". They next discuss a student in the psychiatric ward that the teacher plans to visit. She helped the teacher know what types of things he could spend his remaining supply money on—dictionaries or thesauri. She asks the teacher pertinent questions concerning student grades—she probes politely then praises him enthusiastically. The teacher remarked, "sometimes I'm like an Oxford professor". Principal, "explain this to me some more". The teacher attempts then the principal says:

The point is that you got them here and you take them there—look what
you are doing. Many of your students have not read or written short
stories—you're not too easy!!!

The teacher then asks about a new idea—penpals. They talk about the legalities. He added that he was willing to give up his planning period for it but the principal suggests that this be the January Kaleidoscope (activity time) and he could have the students for a longer period of time. The teacher leaves and the principal is back to paperwork. She begins dividing the finished documentation into two stacks—one (about 12 inches high) is going home with her for further review, the other stack is for the faculty meeting after school (faculty will look at admissions and treatments of each child).

A knock on the door brings in the student who is to go to in-school suspension. The principal explains what the student has done and why she must be assigned to the suspension. As the student leaves, a visitor who does volunteer tutorial English comes in. They chat cordially for about four minutes before the bell rings for the last class change. The principal is out in the hall greeting students just as warmly as she did at the end of first period.

As we are returning to the office the phone rings. A frantic mother wants to admit a run-away daughter with whom she can do nothing with. They are in a doctor's office— the girl has been on the "streets" for the last nine days. The principal explains the admission procedures and that her hands are tied by the legal system. She cannot of her on volition admit a student. She directs the mother to the admitting counselor who is the director of clinical services. It is 2:20, after hanging up she goes to talk to the clinical director about the call. As we head back to the office we talk about the vice principal. "We make good team mates. She sees the step-by-step things—I see the whole thing."

As the school day draws to a close the principal walks me to the door with a smile still on her face. She unlocks the door with one of the keys on her large key ring. As I wave good-bye she is already turning around to another student.

Case Study Number Three

Setting:

The third high school consists of a long brick building with a two-story wing which houses the administrative offices and all the academic subject area classes plus music and drama; a newer, modern concrete structure that houses vocational classes, a recording studio and guidance offices; a large gymnasium with a wing for classrooms; an auto-mechanics shop; other assorted small structures, and atheletic playing fields. There is a semi-circular drive-way in front of the main building for student loading and unloading and in front of the gym there is a large parking lot. The school is located virtually in a downtown section of a large, thriving city of approximately 400,000 in the Southeastern United States. A large bill board in front of the school announces the time and date of the state football play-offs which includes the school's football team. Nearby, on both sides of the school and across the busy street are fast-food resturants, gas stations, small grocery stores and small shopping centers gearing-up to the bustle of busy downtown metropolis life a few blocks away.

The high school was built in 1939 to serve three areas of the county. Throughout the years, students have been prepared to experience academic succcess in colleges through-out the nation. The school has a diversified student body from an extended community which reaches into the suburbs and includes campuses of several nearby colleges and universities. According to the principal, quality academic performance, high expecta-tions for students, the development of self-discipline, and a curriculum to meet the needs of all students are traditional priorities.

The strong academic/vocational curriculum is supplemented by special programs for approximately 200 international students and for three groups of special education students (hearing impaired, learning disabilities, multiple handicapped). Honors courses

are available in English and Advanced Placement courses are offered in American history, biology, calculus, chemistry, English, European histroy, French and Latin. The curriculum includes four foreign languages (French, German, Latin, and Spanish), and four years of computer programming. The facilities also include a specially designed recording studio making classes in broadcasting very popular at the school. Approximately 70% of the graduates further their educations in post-secondary institutions.

This school has many unique assets. The 200 international students are from 19 countries and speak 22 languages. Other assets include an active student leadership in the Inter-High Council at the local, state and national level; an award winning choral group which performs both locally and nationally; and a principal who has 1) served as president of the state principals association, 2) represents the southeast region on the "Greater Schools Committee" of the national organization, 3) is a member of the National Association of Secondary School Principals (NASSP) Curriculum Advisory Board, 4) a NASSP Century III judge, 5) member of the national trust for Historic Preservation and 6) a field-test participant in the state's Better Schools Program. Her instructional leadership is often exemplified as she teaches a class at her school, or at a local college, or speaks about education to a civic group. She keeps the community informed by maintaining a high profile, entertaining community leaders at Second-Tuesday luncheons prepared by students and telling the school's story at frequent speaking engagements. Students, parents and staff reflect her contagious, positive attitude. Many see this attitude as being the factor that aids in overcoming impediments and meeting challenges.

Student achievement awards have been varied and numerous. Some student awards include: semi-finalists, finalists and scholarship winners in the National Merit Scholarship Competition; and semi-finalists, finalists and scholarship winners in the National Achievement Scholarship Program for Outstanding Negro students. The school has had winners of the National Council of Teachers of English Achievement Awards in writing,

Presidential Academic Fitness Award winners, and state Honors scholars. Subject area competitions include winners in the National Latin Exam, state Latin conventions and regional Latin conventions and Humanities. Mathematics awards include regional and state winners in the state Mathematics Teachers' Association and an invitation of a student to participate in the American Invitational Mathematics Examination and the American High School Mathematics Examination. In vocational classes awards include: regional and state DECA awards, a national cover design winner, and winners in the state art contests. Choral groups have placed members in the mid-state chorus festival and the all-state chorus. Other choral honors include the Silver Medal at the International Music Festival, and the Gold Medal Award in the Music Maestro Please International Music Festival. The debate team was the top group in the city and placed second in state competition (taken from the Secondary Schools Recognition Form for schools of excellence).

The diversity of the social and economic backgrounds and ethnic groups from countries around the world give the school a very stimulating atmosphere. It is truly unique.

Principal three, with her positive and fair administration, fosters this mixture of talents and needs. She has an open-door policy for both students and teachers. She gives students the opportunity to accept responsibility and exercise mature judgment and discretion. She believes in democratic procedures for both students and teachers.

The faculty takes pride in the school and its students while students appreciate the talents of the faculty. More than 75% of the faculty has masters or more advanced degrees. There is good teacher morale which arises from involvement in decision making.

The school has been identified as the "Hallmark School of the Central South". The faculty keeps this tradition alive by being excellent planners, preparers, motivators, encouragers and nurturers. They in turn are led by an excellent planner, preparer, motivator, encourager and nurturer. They recognize that their most valuable asset is the

student (taken in part from the Secondary School Recognition Program form and interviews).

Characteristics of an Effective/Successful Female High School Principal:

Principal three has leadership power. She states, "I have a special image and public relations...I have a great deal of personal security that allows me to give my teachers and students personal freedom...I don't mind if my students have a picnic on the lawn...I am prepared... I give attention to details... I chose/selected my teachers—I wanted ones with high writing and technical skills to give our students the highest quality—I did my homework!"

An assistant superintendent said, principal three "is great—she's a great school and community leader. You have to be on your toes to keep up with her!"

This principal has the capacity to influence and organize meaning for her school. She keeps the lines of communication open. There are regularly scheduled in-service programs and a faculty advisory committee to inform the administration of staff concerns regarding factors that impact instruction coupled with recommendations for assistance in giving direction and democratic leadership to the school. She says:

> I believe in praise...I believe people think I'm friendly, fair and diligent. I hope I'm, a role model for punctuality, organization and loyalty. I am interested in scholarship—I guess you would call me an academician. I have a B.S. in chemistry and a masters in English. I hope this subtly speaks to my concern for academic interests. People need to see the leader as a player—I sit in the center of the student cheering section at ballgames. I've been called chief cheerleader. I believe it is important to have a high visibility in the school and community so I serve on boards in the community, state and nation for civic and education organizations.

Principal three is a creative leader. She has been in education for 37 years and says that she has enjoyed every one of them. "I look forward to Monday as well as Friday. I believe that being a dedicated teacher is a great way to establish one's identity."

She has helped establish local civic clubs as "parent clubs" to student service organizations working on projects of mutual interest. She invites local business and professional groups to a monthly luncheon prepared by Food Management students. New courses added to the curriculum include Critical Thinking, Theater Arts, Imaginative writing, Vocabulary Studies, English-as-a-second Language, Cross Culture Studies, Total Communications and Jobs for State Graduates Program. The courses added to the total curriculum are aimed at excellence as they help prepare students to meet the challenges faced in the job market, to become productive citizens and to prepare for higher education.

This principal has also enlarged the guidance department to meet student needs better, pushed for the preparation of departmental curriculum guides and increased preparation for PSAT, SAT and ACT, and Advanced Placement. She has instituted new programs such as the People-to-People Team, Pro-Team, and Instructional Improvement Plan. People-to-People is a federally funded program for drug prevention. It emphasizes building a positive self concept within the student. The next new program, Pro-Team, plans and implements in-service and professional development for the staff. Other programs serve special needs of students. An Extended Learning Program offers both non-credit and one college credit course for students wishing to pursue special interests. The new Incentive Program is designed to motivate students toward the pursuit of excellence in attendance, curricular and co-curricular activities. After- school detention and in-school suspension deter tardies and improve school discipline (taken from the Secondary Schools Recognition Form).

As an excellent education leader, this principal is visionary. Her vision for her school is to have 25 "med" scholars in one year..."I'm a dreamer—an optimist". She also envisions 90% of the school's graduates going on to college; she also sees these graduates receiving over one million dollars in scholarships (presently they receive approximately one half million); she wants a national forensic candidate; to win a national Century III Award; and be a state winner in school athletics—(they ended second in the state in football this year). This is a case of excellence pursuing excellence.

Conclusions

Principal three identifies with her school. She is highly respected by her faculty, staff and students. She pushes for excellence in herself, her faculty and students. She has worked hard to have the best available staff for her students. She says, "I'm not a 'jock', but I can swap barbs with Johnny Majors coming and going". Incidentially, she has a former Green Bay Packer and New England Patriot on her staff. She still remains chief cheerleader.

Because she has personal security, she believes in giving people responsibility—in participatory management. She says that her school is "a rise to the occasion school". She believes in the school, its teachers and its students.

According to the principal, behavior has improved 95% in the last eleven years. She uses positive discipline through her citizenship club. The students help decide on the punishment.

She claims she is a risk-taker. She quipped, "you wouldn't ask me that if you had ever been my bridge partner!" (she holds both a bridge and tennis tournament for her faculty each year). "Seriously, I took a big risk when we started the international school and English-as-a-second language—but it's working!"

Principal three credits her family with her achievements. Her parents gave her a deep sense of security and love. She had a very supportive husband and somewhere along the line she acquired a high level of tolerance for people who have differences. She also says, "I have been abundantly blessed."

When asked about the long hours it took to place her school where it is today, she replies:

> Sometimes I stay until 7:00, but when I leave, I leave school here. When I come to school I leave home. When my family calls me at school, I know they need my attention. I tell my students, if you really need me anytime, I'll be there for you. I do not get prank calls.

This is a committed and dedicated woman. The cornerstone of the school's high achievement and progress is an administrative and teaching staff committed to the positive support of the students in their "quest for excellence". This is emphasized through the school goals: to prepare students to achieve their goals, to promote student success each day and to provide a flexible program of education commensurate with special needs, abilities, interests and concerns. Teachers and administrators alike recognize that the school's most valuable asset is the students as they pursue a "quest for excellence".

APPENDIX J
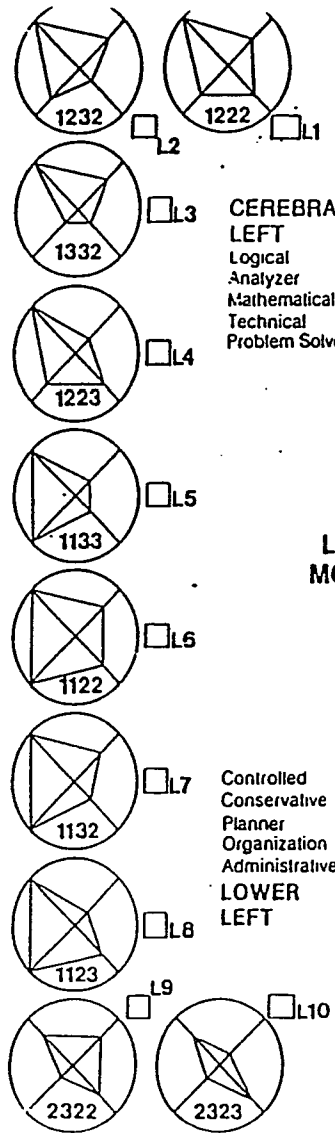
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Analyzer
Mathematical
Technical
Problem Solver
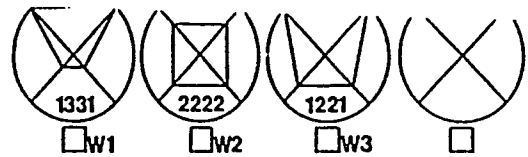
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PRINCIPAL ONE
SOURCE: NORRIS (1990)
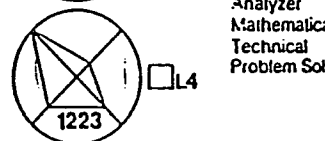
CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative

LOWER
LEFT

DOMINANCE PROFILE

LIMBIC

Interpersonal
Emotional
Musical
Spiritual
Talker

LOWER
RIGHT

1232 L2 L1
1222
1331 W1
2222 W2
1221 W3
2221 R1
2321 R2
1332 L3
2331 R3
1223 L4
3221 R4
1133 L5
3311 R5
1122 L6
2211 R6
1132 L7
2311 R7
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1212 W4
1112 W5
1113 W6
3112 W7
3232 R10
2232 R9
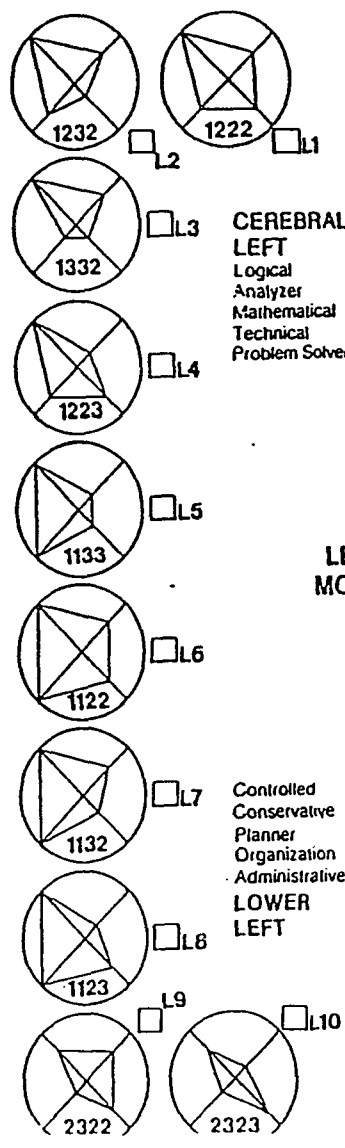
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Logical
Analyzer
Mathematical
Technical
Problem Solver
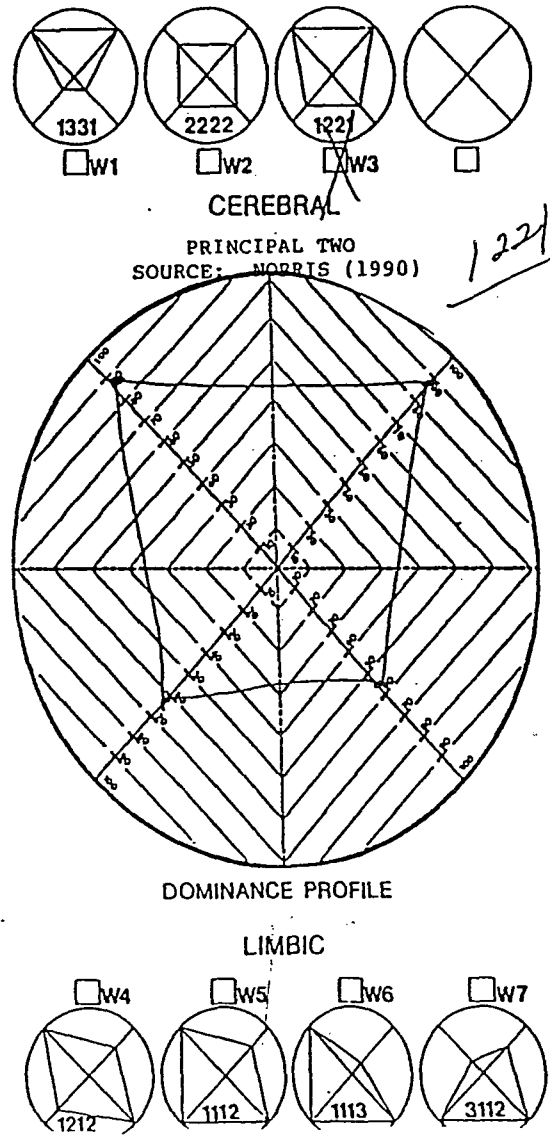
CEREBRAL
PRINCIPAL TWO
SOURCE: NORRIS (1990)

CEREBRAL RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT MODE

RIGHT MODE

DOMINANCE PROFILE

Controlled
Conservative
Planner
Organization
Administrative

LOWER LEFT

LIMBIC

Interpersonal
Emotional
Musical
Spiritual
Talker

LOWER RIGHT

CEREBRAL
LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

Controlled
Conservative
Planner
Organization
Administrative

LOWER
LEFT
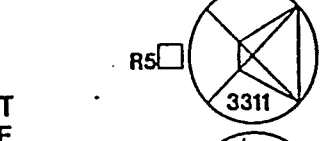
1232 □L2
1222 □L1
1332 □L3
1223 □L4
1133 □L5
1122 □L6
1132 □L7
1123 □L8
L9
2322 2323 □L10

1331 □W1
2222 □W2
1221 □W3
□

CEREBRAL
PRINCIPAL THREE
SOURCE: NORRIS (1990)

LEFT
MODE

RIGHT
MODE

DOMINANCE PROFILE

LIMBIC

□W4 □W5 □W6 □W7
1212 1112 1113 3112

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

R1□ 2221
R2 2321
R3□ 2331
R4□ 3221
R5□ 3311
R6□ 2211

Interpersonal
Emotional
Musical
Spiritual
Talker

R7□ 2311

LOWER
RIGHT

R8□ 3211
R9
R10□ 3232
2232

214

CEREBRAL
LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

Controlled
Conservative
Planner
Organization
Administrative
LOWER
LEFT

1232 1222 L2 L1 L3 1332 L4 1223 L5 1133 L6 1122 L7 1132 L8 1123 L9 L10 2322 2323

CEREBRAL
PRINCIPAL FOUR
SOURCE: NORRIS (1990)

Code:
1211

1331 W1 2222 W2 1221 W3

LEFT
MODE

RIGHT
MODE

DOMINANCE PROFILE
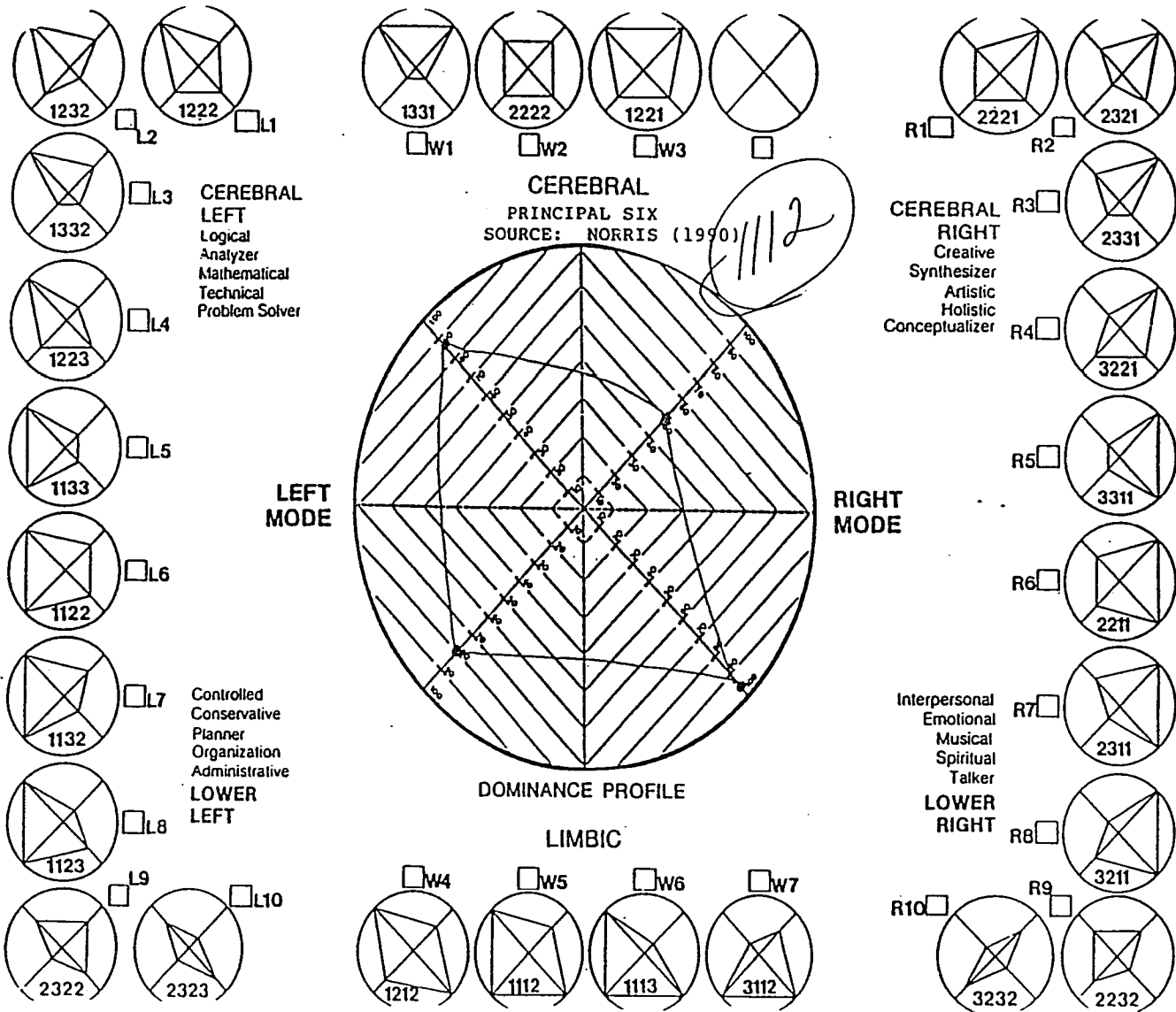
LIMBIC

W4 W5 W6 W7
1212 1112 1113 3112
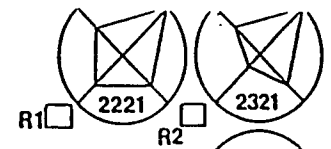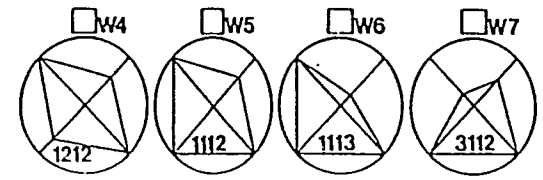
CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

Interpersonal
Emotional
Musical
Spiritual
Talker
LOWER
RIGHT

R1 2221 R2 2321 R3 2331 R4 3221 R5 3311 R6 2211 R7 2311 R8 3211 R9 R10 3232 2232

215

CEREBRAL LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver
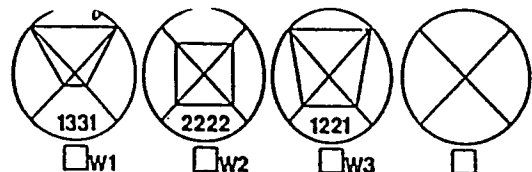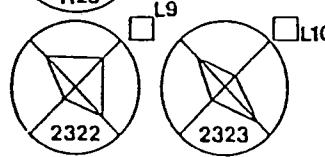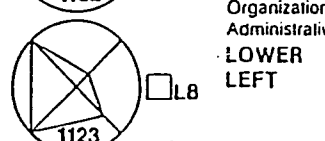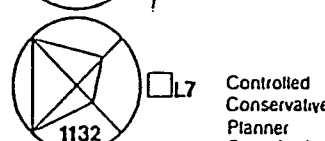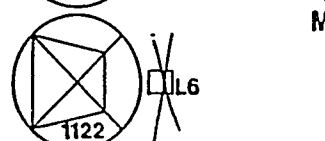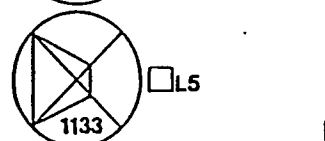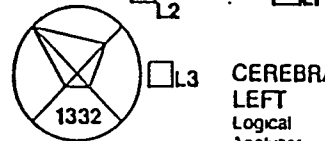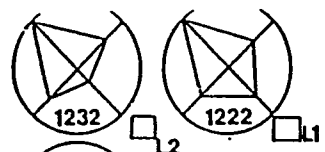
CEREBRAL
PRINCIPAL FIVE
SOURCE: NORRIS (1990)

CEREBRAL RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT MODE

RIGHT MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER LEFT

DOMINANCE PROFILE

LIMBIC

Interpersonal
Emotional
Musical
Spiritual
Talker
LOWER RIGHT

CEREBRAL
PRINCIPAL SIX
SOURCE: NORRIS (1990)

CEREBRAL
LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER
LEFT

Interpersonal
Emotional
Musical
Spiritual
Talker
LOWER
RIGHT

DOMINANCE PROFILE

LIMBIC

CEREBRAL LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

CEREBRAL
PRINCIPAL SEVEN
SOURCE: NORRIS (1990)

CEREBRAL RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT MODE

RIGHT MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER LEFT

DOMINANCE PROFILE

Interpersonal
Emotional
Musical
Spiritual
Talker
LOWER RIGHT

LIMBIC

218

CEREBRAL
LEFT
Logical
Analyzer
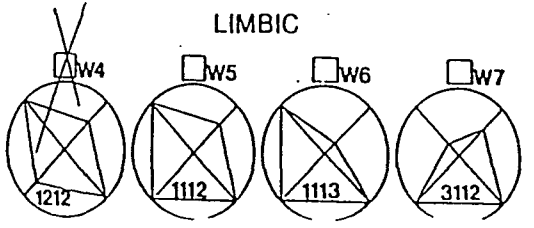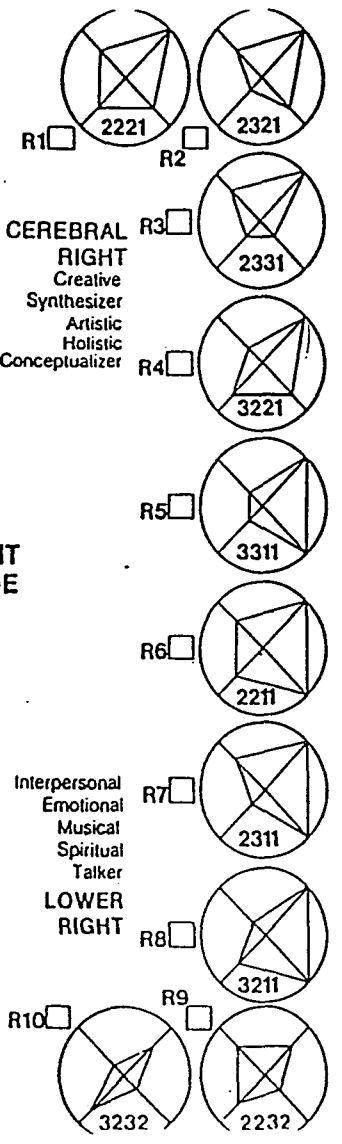Mathematical
Technical
Problem Solver

CEREBRAL
PRINCIPAL EIGHT
SOURCE: NORRIS (1990)

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative
LOWER
LEFT

DOMINANCE PROFILE

Interpersonal
Emotional
Musical
Spiritual
Talker
LOWER
RIGHT

LIMBIC

CEREBRAL
PRINCIPAL NINE
SOURCE: NORRIS (1990)

CEREBRAL
LEFT
Logical
Analyzer
Mathematical
Technical
Problem Solver

CEREBRAL
RIGHT
Creative
Synthesizer
Artistic
Holistic
Conceptualizer

LEFT
MODE

RIGHT
MODE

Controlled
Conservative
Planner
Organization
Administrative

Interpersonal
Emotional
Musical
Spiritual
Talker

LOWER
LEFT

LOWER
RIGHT

DOMINANCE PROFILE

LIMBIC