FEMALE ACADEMIC DEPARTMENT HEAD: A NATIONAL
STUDY OF SELF-PERCEIVED LEADERSHIP

STYLES IN DOCTORAL GRANTING

INSTITUTIONS

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## CHAPTER I

INTRODUCTION

## Background of the Problem

Leader behavior in educational institutions has been a popular research topic for many years, especially since student enrollment expansion began around 1966. Much of this research has focused on identification of the leadership styles of institutional administrators both in public schools and higher education. Research studies on managerial skills, effectiveness, leadership style, and behavior of superintendents, principals, presidents, deans and central administrators runs into the hundreds of studies and is rapidly increasing. Yet, few such studies are available on the academic department chairperson. Despite the fact that there are more than 80,000 department chairs in the United States today (Green, 1990), The department chairs outnumber all other types of higher education administrators combined (Tucker, 1984).

With the present crisis of student attrition in higher education, it is becoming more and more essential for colleges and universities to maintain viability and respond effectively to the changing needs of the society. The change has to start with the academic department because that is
where academic services are actually delivered and where the main mission of higher education is carried out.

The chairperson, who occupies a unique position, is the first among equals and leader among peers. $S /$ he is both a manager and faculty colleague (Tucker, 1984). The ambiguity built in with this position requires the incumbent to assume many roles, and some of these roles may, at times, create conflict with others.

Though department chairs have the least formal power in higher education settings, they have the greatest impact on the core of the institution--teaching, learning, research and service. They are the ones who are in a position of shaping curriculum and thereby improving teaching and positively affecting student lives (Bennett, 1988; green, 1988) .

Beginning in the 1960's the women liberation movement attempted to increase the number of women in leadership positions in academia. Although the movement was very effective in drawing attention to the underrepresentation of women in traditional positions of leadership, it was much less successful in modifying the status of women during the 60's as well as the 70's.

According to Shakeshaft (1989), four factors allowed women eventually to claim administrative position in educational institutions. These factors were:

- the feminist movement;
- organization of women teachers;
- right to vote in local elections;
- economic advantage.

Recognizing that the changing composition of the student body demands diversity in leadership, the effectiveness of today's higher education institutions requires that leadership reflect this diversity. This in turn makes the inclusion of women as leaders essential (Green, 1988). Shakeshaft (1989) indicated that, in 1982, 71 percent of the Ph.D. and 63 percent of the Ed.D. aspirants were women. According to the Tulsa World of December 28, 1990, more women than men will be earning doctoral degrees by the year 2000. As Green (1988) pointed out, diversity and the forthcoming changes hold the potential for discovery, and to appreciate diversity is to know its richness. To realize this does not lead to being a second class institution or to decrease in excellence.

Although women's influence in education has existed since the mid 1800's, today the proportion of women serving in higher education is not much higher than in the earlier 1900's. Women are still vastly underrepresented in leadership positions. By 1928, 8.4 percent of presidents and 14.3 percent of departmental chairs in higher education institutions were females (Shakeshaft 1989). Today, however, only 16 percent (Berry, 1979) of key administrative positions are held by women. Today only 10 percent (Green, 1988) of higher education institutions, and 14 percent of academic departments (Cresswell, 1990) are led by women.

Statement of the Problem

Failure of higher education institutions in meeting everchanging societal needs, the changing student body, growing diversity at higher education institutions in terms of gender, and increasing number of non-traditional students in terms of FTE all call for an accompanying change and diversity in the nature of leadership. As Shavlik and Touchton (1988) pointed out, the recognition of diversity as a way to increase productivity, intuition, caring, and nurturance as essential characteristics of successful leaders have recently received a great deal of attention. They stated that unique insights and abilities of women (e.g., authenticity, caring, intuition, connectedness, holistic thinking) have not been considered valuable until recently.

Despite this, few studies of leadership styles of academic chairpersons and even fewer studies of female head/chairs have ever been undertaken. Therefore, the immediate problem of investigation in the present study was to examine the leadership style, style flexibility, and effectiveness of female department head/chairs in research and doctorate-granting institutions of higher education.

At the same time, because the academic department is the stepping stone and the foundation unit of higher education institutions, it seems that the department should become the core of leadership issues in higher education. Therefore, this study was deemed to be timely. Finally,
since departmental leadership requires both academic leadership and management skills, the results of this study will benefit and be used by institutional administrators.

## Purpose of the Study

The major purpose of the study was to investigate leadership styles, style flexibility, and style effectiveness of female department chair/head in public and private research and doctorate-granting institutions in the United States as perceived by the chair/heads themselves. This study also investigated the relationship of female department chair/heads leadership styles with each of the following demographic and institutional variables:

- age
- ethnic/racial background
- marital status
- number of children living at home
- primary and secondary home provider
- mother's education and career
- previous administrative experience
- position title and its equality to chair/head position
- years of experience in current position
- academic rank
- field of study/discipline
- teaching experience
- number of degree program(s) offered by department
- size of department faculty (FTE)
- size of department enrollment


## Research Questions

question one. Do female academic department chair/heads as a group have a dominant leadership style?

Question Two. Are selected personal variables of age, ethnic background, marital status, number of children living at home, being the sole support of the household, mother's education and career related to the leadership behavior of the female academic department head/chairs?

Question Three. Are selected institutional variables of position titles, length of time in present position, academic rank, field of study/discipline, previous administrative experience, teaching experience, departmental program size, faculty and enrollment size related to leadership behavior of the female academic department chair/heads?

Question Four. Are there significant differences in the leadership style, style range/flexibility, and style adaptability/effectiveness of the female academic department chair/heads by sector (public and private)?

Question Five. Are there significant differences in the leadership style, style range/flexibility, and style adaptability/effectiveness of the female academic department
chair/heads by the type of institution (research I \& II and doctorate-granting I \& II)?

Definition of Terms

Department. The term "department" is the structural unit housing faculty and may be called by other names such as "division" or "colloquium" (Cresswell, 1990).

Departmental Head. The person occupying an administrative position in an academic unit who may also be called chair, chairperson or division head. All terms refer to individuals holding mid-level academic positions in a department or comparable units. In this study, all these terms are used interchangeably.

The following definitions are based on classifications proposed by the Carnegie Foundation (1987):

Research Institutions I. These institutions, offering a full range of baccalaureate programs, are committed to graduate education through the doctoral degree, and giving high priority to research. They receive annually at least $\$ 33.5$ million in federal support and award at least $50 \mathrm{Ph} . \mathrm{D}$. degrees each year.

Research Institutions II. These are similar to Research I except that they receive between $\$ 12.5$ million and $\$ 33.5$ million annually in federal support and award at least $50 \mathrm{Ph} . \mathrm{D}$. degrees each year.

Doctorate-Granting I. In addition to offering a full range of baccalaureate programs, the mission of these institutions includes a commitment to graduate education through the doctorate degree. They award at least 40 Ph.D. degrees annually in five or more academic disciplines.

Doctorate-Granting II. These are similar to DoctorateGranting I except they award annually 20 or more Ph.D. degrees in at least one discipline or 10 or more Ph.D. degrees in three or more disciplines.

## Limitations

This study was limited to a sample of female academic chair/heads serving in Doctorate-Granting and Research Institutions as classified by the Carnegie Foundation (1987). Therefore one cannot safely generalize the results to female academic department head/chairs in other types of institutions.

This chapter presents literature on three different related areas:

1- Major leadership theories and models in education in general and in higher education in particular

2- Academic department head/chairs studies

3- Issues affecting women holding academic administration positions.

## Leadership

## Definitions

The concept of leadership has fascinated mankind for thousands of years. It has been given widespread attention and a sizable and growing body of literature deals with the topic of leadership, particularly in the higher education arena. Yet this complex concept appears to be a rather difficult one to define in concise terms, especially as it applies to higher education institutions. This is particularly true when one considers the fact that any seemingly effective and appropriate leadership style in any
of the 3,000 diverse institutions of higher education can be ineffective and inappropriate in others.
' Leadership for Gardner (1990, p. 1) was "the process of persuasion or example by which an individual (or leadership. team) induces a group to pursue objectives held by leader or shared by leader and his/her followers." For Tucker (1984, p. 41), leadership was "the ability to influence or motivate an individual or a group of individuals to work willingly toward a given goal or objective under a specific set of circumstances." Hersey and Blanchard (1988, p. 86) defined leadership as "the process of influencing the activities of an individual or a group in efforts toward goal achievement in a given situation."

Leadership, in 1980, was described by Kamm as "Helping people to be and to become the best each is capable of being and becoming" (p. 37). Tannenbaum, Weschler, and Massarik (1961, p. 24) defined leadership as "interpersonal influence, exercised in situations and directed, through the communication process, toward the attainment of a specified goal/s."

Other definitions of leadership--including those of Barnard (1938), Stogãill (1950, 1963, 1974), Getzels and Guba (1957), Etzioni (1961), Katz and Khan (1966), Fiedler (1967), Boles (1975), Baldridge (1975), Alfonso, Firth, and Neville (1975), Hage 1980, Giammatteo (1981), and Miles (1981)-- are very similar to the ones mentioned previously (Jahanshahi, 1985).

New leadership modelsmin higher education favor interdisciplinary approaches and emphasize leaders as generalists who "can see the forest beyond the trees" (Green 1988, p. 47). Green (1988) pointed out that educated generalists are well equipped to look beyond the immediate future and to conjure up possibilities. Gardiner (1987, 1988) emphasized the importance of leadership teams and saw the role of leader as one of bridge builder.

In summary, the numerous definitions of leadership suggest that there is little agreement as to the meaning of this complex and fascinating concept. This is primarily because leadership depends on the position, behavior, personal characteristic of the leader, and the character of the situation.

## Major Leadership Theories

Beginning with single dimensional approaches used by social psychologists between 1930 and 1950, a systematic approach was undertaken to discover traits common to all great leaders. This ongoing search, however, has produced inconclusive and conflicting results and has yet to find a set of common traits related to effective leadership (Stogdill, 1974).

A more recent approach, developed in contrast to the trait approach, was the strict situational approach. Although short-lived as a theory, the situational approach, according to Hoy and Miskel (1978), indicated that
situational factors were as important as personality factors in determining leadership effectiveness.

Finally, with the merging of the human relations movement of the 1930's with the school of scientific management, two-dimensional studies with two distinct categories of leader behavior emerged. This approach, often referred to as the dual leadership model, consisted of two independent dimensions: concern for people and concern for the task.

In the late 1940 's, a series of investigations known as the Ohio State Leadership Studies produced a very well known and now widely used questionnaire called the Leader Behavior Description Questionnaire (LBDQ). This was the beginning of a variety of significant findings and was followed by the Harvard Studies of Leader Behavior with two separate leadership roles of "task leader" and "social leader."

Contingency Theory by Fiedler (1969) was the first theory that brought the term "style" into play in leadership studies. He differentiated between "style" and "behavior" and argued that "style" consisted of the underlying leader attitudes that motivate behavior in various leadership situations. His main argument was that the effectiveness of a leader depends on the favorableness and unfavorableness of the situation.

Managerial and Academic Administrator Grid Theory, developed by Blake, Mouton, and Williams in 1964 and revised in 1981, was a transitional theory between leadership styles
theories and contingency theories. This theory assumed several universal characteristics of organizations:

- all organizations have a sense of purpose/goal/s;
- all organizations consist of people responsible for accomplishing the goal/s;
- all organizations have a hierarchy of authority consisting of subordinates and superordinates.

Blake, Mouton, and Williams (1981) pointed out that different leaders have different attitudes about using their hierarchial position in interconnecting the people element with the task accomplishment. The Managerial and Academic Administrator Grid presents nine possible positions in each category of "concern for production" and "concern for relationship" with 1 representing minimum and 9 maximum of production or relationship, creating a matrix of eighty-one different positions in which the leader style may fall.

In 1970, Reddin added a third dimension of
"effectiveness" to the task and people dimensions (Hoy and Miskel, 1978). This theory evaluated the appropriateness of a specific leadership style in a given situation. In other words, the basic assumption of this theory was that no leadership style is "good" or "bad" in itself and that the situational factors such as followers, technology, and organizational climate have important roles in determining whether a particular style is effective or not.

Industrial studies by Likert and Associates (1967) resulted in Likert Management Theory and called attention to
the most important organizational task, namely managing the human component. According to this theory, managing the human component of the organization is the most important task, because everything else depends on how well this task is accomplished.

In 1980, as a result of a five-year intensive study of faculty, students, and administrators in private liberal art colleges, Astin and Scherrei developed two typologies. The first typoloty proposed four presidential styles based on the information gathered from faculty and top administrators, and the second proposed five college administrative styles. They concluded that all college administration leadership styles were very similar to the one proposed for the president (Jahanshahi, 1985).

The Situational Leadership Theory/Model of Hersey and Blanchard, developed in 1974, is the most complicated, comprehensive and sophisticated one by far. They asserted that situational leadership is "a model and not a theory" (Hersey and Blanchard 1988, p. 170). Situational leadership theory, also formerly known as the "Tri-Dimentional Leader Effectiveness Model" and "Life Cycle Theory of Leadership," is based upon an interplay among the "initiating structure" and "consideration" and the readiness (in the 1974 edition of the book, "readiness" was referred to as "maturity") of the followers on a specific task, function, or objective that the leader was attempting to accomplish through the followers. In other terms, Hersey and Blanchard (1988)
hypothesized that the readiness of the subordinate is the most important aspect of the situation for determining whether leader behavior should emphasize "initiating structure" or "consideration", or both.

The concept of maturity/readiness/developmental level was carefully defined in reference to a specific task. The theory indicated that while followers may be ready in reference to one or several tasks, they also may be unready in reference to another. They identified two aspects of readiness:
"The extent to which a follower has the ability and willingness to accomplish a specific task" (1988, p. 174). Ability is the knowledge, experience, and skill that individual or group brings to a particular task or activity. Willingness is defined as "extent to which an individual or group has the confidence, commitment, and motivation to accomplish a specific task" (1988, p. 175).

This theory/model developed from studies conducted at the Center for Leadership Studies. It used the two dimensions of leader behavior, task orientation and relation orientation, to identify four styles of leadership:

S1- high task, low relationship (telling/directing); provide specific instructions and closely supervise performance
s2- high task, high relationship (selling/persuading); explain decisions and provide opportunity for clarification

S3- low task, high relationship (participating); share ideas and facilitate in making decisions

S4- low task, low relationship (delegating); turn over responsibility for decisions and implementation

According to the theory/model, as the level of readiness of the follower/s changes, the leader should adapt his/her style to suit the situation. Appendix $F$ briefly illustrates the Tri-Dimensional Leader Effectiveness Model.

The Leader Behavior Analysis (LAB II) is based on the 12-item Leader Effectiveness and Adaptability Description (LEAD) which itself originated from the Leader Adaptability and Style Inventory (LASI). In its present form, LBA II consists of two forms, Self and Other, each comprising 20 item-situations. This instrument is available through the Blanchard Training and Development Inc., Escondido, California.

The LBA II-Self instrument measures one's selfperception of own leadership style. The LBA II-Other, reflects the perceptions of a leader's subordinates, superiors, and peers or associates. On each of the twenty items, on leadership situations, respondents select one of the four alternative actions, each representing one of the four styles of leadership they feel would most closely describe their (or their leaders') behavior in that type of situation.

The instrument is designed to measure three aspects of leader behavior:
a- style (leadership style)
b- style range (style flexibility)
c- style adaptability (style effectiveness)
Other leadership style classifications including Ludewig (1983), Fisher (1984), Sergiovanni (1984), and Bass (1987) are somewhat similar or combinations of above theories and models (Jahanshahi, 1985).

In summary, despite the fact that few theories are as heavily studied as the leadership theories, and despite a variety of labels used in reference to each style, each has its own merit in understanding of the leadership process and each provides some answers to the process. But none of these theories alone presents the whole answer. The answer lies in an integrated theory of leadership that can take style as well as other traits, personality, and situational factors into account.

## Manager and Leader Issues

Some organizational theorists have difficulty with separating the two terms. Gardner (1990, p.4) uses the term leader and leader/manager and distinguishes them from the general run of managers in that the former:

- think in terms of longer terms
- think about the unit they are heading
- reach and influence constituents beyond their jurisdictions, beyond boundaries
- put heavy emphasis on the intangibles of vision,
values, motivation, and leader-constituent interaction
- have political skills to cope with conflicting requirements of multiple constituencies.
- think in terms of renewal

Kamm (1980) distinguished leadership as performance well beyond that of management, and in terms of "leadership is that something plus." Hersey and Blanchard (1984) believed that leadership deals with our relationship to people, and management deals with our relationship to organization.

Green (1988) discusses the ideas of Kerr \& Gade (1986) in differentiating between "managerial leader" and "pathfinding leader". She emphasized that the role of the leader went far beyond effective and efficient administrator. She included sensitivity to people and issues, vision expansion beyond a particular institution or position, and concern for effectiveness of the total organization rather than short-term task performance.

Department and Department Head/Chairperson

Today's colleges and universities have become some of the most complex institutions in American society. This is not only because of their many internal and external relationships but also because their formal structure fails to depict their power and authority patterns.

The department is defined as the "most basic academic
unit" (Murray, 1964), "where academic services are actually delivered" (Bennett, 1990) and "where real institution business gets conducted" (Bennett, 1983). Leslie (1973) defined it as "the heart of academic enterprise." Roach (1976) described the academic department as the key to the successful achievement of the school's primary mission. He emphasized that, because of decentralization and rising influence of faculty members, 80 percent of administrative decisions take place at the departmental level.

Murray (1964) indicated that the organization, operation and development of higher education in the long run depends on the department. Therefore, the department is ultimately the determining factor in successful governance of higher education.

Bennett (1990) suggested that the importance of the department or division leaders rests on the fact that they are situated precisely where the academic mission of the institution is implemented and where academic services are actually delivered. Therefore, the success of the college or the university increasingly is very much a function of their success.

Leslie (1973) suggested that the academic department represents a way of life, and it should not be considered the lowest administrative stage serving in the downward delegation of manageable spans of control. Instead, in his opinion the department would be deemed the heart of the institution.

The quality of the core academic success of the institution depends upon the quality of the chairperson and his/her ability to manage and lead. Tucker (1984) called them "first among equals," and Bennett called them "leaders among peers." The department heads usually come out of faculty ranks and are often longtime colleagues of the faculty.

Upon completing field visits to 22 institutions of higher education, Murray (1964) concluded that there were no common departmental organizational structures, but collectively they represented five evolutionary and distinct stages of departmental development, with distinguishing characteristics as follows:

1- first stage: less than 15 faculty members and dictatorial headship

2- second stage: With approximately 15 faculty members, department experienced internal convulsions and had an arbitrary headship

3- third stage: An intermediate stage with 15-25 members and rampant or extreme democratic leadership

4- fourth stage: with 25-45 members it usually enjoys the shared senior and tenured faculty action and decision making

5- fifth stage: with 100+ members, these extremely large departments used a bureaucratic model in handling routine matters. They were run by competent secretaries and specially selected academic
bureaucrats with nameless administrative assistants; they had the arbitrary authority of an impersonal bureaucratic machine

Tucker (1984), in support of the situational leadership model, discussed the three departmental sizes (small 4-9, medium 10-19, and large $20+$ members) and the maturity/ readiness stage of the department. He emphasized that maturity of a group should not be confused with the maturity of the individual members who make up the group. The department might include an adequate number to be regarded as mature, yet those members may not be able or willing to work effectively as a group.

Tucker (1984) identified two types of leader behavior which are "supportive" and "directive", producing four leader behavior quadrants. The effective leader was the one who adjusted style for different situations and combined in varying proportions characteristics of two or more of these four types:
$\vee^{1-}$ for low maturity/readiness department, the chairperson should be high directive and low supportive
$\vee^{2-}$ for moderate maturity/readiness department, the chairperson should be high directive and high supportive

V 3- for moderate high maturity/readiness department, leadership style should be the one of low directive and high supportive

V4- and for the high maturity/readiness department, low directive and low supportive style is recommended.

Roles Description of Department Head

An astonishing variety of tasks and duties face department chairpersons. Cresswell, calling the academic department the basic building block of the institution, reported ninety seven activities in studies conducted by the University of Nebraska (Cresswell, 1990). According to Blake, Mouton, and Williams (1981), Tucker (1984), and Cresswell (1990) these responsibilities include:

- department governance
- instruction
- faculty affairs
- student affairs
- external communication
- budget and resources
- office management
- professional development
- implementing institutional mission
- supporting teaching and learning
- establishing the curriculum
- supporting research and scholarly activity
- encouraging community and institutional services
- managing resources, supervising personnel
- coordinating student affairs
- managing external relationships and assuring basic operations.

The key word of "interaction" both at the personal and professional levels, gets special attention in works of Gilligan (1982); Tucker (1986); and Bennett (1990).

Role Conflict and Sources of Dissatisfaction

Some of these roles may at times conflict with others, and create structural ambiguities with the position.

Whitson and Hubert (1982) pointed out that because the department chairperson is considered to be both faculty and administrator, the chairperson position has been described as difficult, ambiguous, and ill-defined. While at one point the most important task may be the faculty evaluation, there is also energy to be spent and skills to be applied in budget battles and resource allocations. The department head also builds loyalty to the wider institution rather than being a specialist; $s$ he is one who sees the larger need to be a generalist in shaping the department's future.

## Terms of Office

Terms of office vary across the nation. For Bennett (1990), the term had to be 3-4 years in order to become effective, while for some the one year interim period works best for the purpose of engendering variety and creativity. Corson (1973), pointed out that for exercising authority and a collaborative mode, the chairmanship should rotate among department members on an annual basis. According to an unpublished survey of department heads conducted in 1977 by Tucker (1984) terms of service are usually 6 years.

In summary, the academic department chair/head has a unique position with numerous roles, responsibilities and much ambiguity. S/he is a faculty person, colleague, and administrator who serves at the heart of institutions where the real business of the institution gets conducted and where academic services are actually delivered.

## Women's Issues and Studies

In the last decade women in academic society have made some gains as leaders. Over 300 women now serve as chief executive officers of colleges and universities in the United States (Shavlik \& Touchton 1988). According to Green (1988) there are approximately 80,000 existing departmental heads at over 3,000 higher education institutions, and according to Shakeshaft (1989), $14 \%$ of the total number of academic department heads are female.

Although some studies suggest that women are less likely to advance as far or as fast as their male peers, Marcus (1990) pointed out that, in Astin's study of 1973, he found that while married women held lower ranks, single women reached the professional level at a higher proportion than men. Green (1988) suggested that today women comprise the majority (70\%) of undergraduate students. This coupled with an increasing number of women in graduate programs may result in women advancing to leadership positions in public as well as private educational institutions.

Contributions of women as leaders and as agents of a new direction for higher education institutions have only recently been recognized. Only recently, awareness has developed of the role of women as a vital force in society, and their new and varied talents and fresh perspectives such as "authencity, caring, intuition, connectedness, nurturance and holistic thinking" have only recently been acknowledged (Shavlik \& Touchton 1988, P. 100-102). Gilligan (1982) also
took special note of caring and nurturing qualities of women and their concern with the needs of others and providing care. Desjardins (1989) found that most effective CEO's in community colleges operated out of connectedness and care. She indicated that the most effective leadership style is human leadership style, and this appears to be in support of the current trend in relation to the presence of more women in higher positions in higher education. Love, in a 1980 speech delivered prior to her appointment as the second woman superintendent of the Chicago public schools, stated that ... "women will institute a whole new and feminine form of management that is rooted in solid human values, that nurtures everyone connected with it ..." (Shakeshaft, 1989, p. 18). According to Waerdt (1990), because of the increasing number of women in all parts of the academic population, the research on women students and faculty members is becoming progressively more important. A majority of such studies of women in administration, however, are reported only in research dissertations (Shakeshaft, 1990).

## Barriers to Women in Administration

Since the 19th century, women have been both educators and among the educated. Over two-thirds (67\%) of American teachers, 14 percent of school principals, and 6 percent of superintendents are women. Their part has been significant and substantial, yet they have not consistently been leaders. They have had less power, prestige, and money than
men. This is the result of at least two forces. The first is the demand that women devote their primary energies to their houses and families, not to the public sphere. The second is sex discrimination. Men are judged on the job by their level of effectiveness at work, women are evaluated according to the many roles they are able to play and to integrate well. Women must be judged competent in their female roles as well as their occupational roles (Biklen, 1980).

Constraints women face in their working lives are family constraints (Biklen, and Brannigan 1980; Shakeshaft, 1989; Welch, 1990), constraints of marginality, and internal, self-imposed constraints.

Family constraints are a major barrier for women administrators. Child rearing and socialization are still widely considered the duty of mothers. Working mothers are, of course, nothing new in this century. Just how new is the phenomenon of mothers leaving home to work at a job away from the home is not clear, because census data before 1940 did not reflect the marital status of women workers. Since 1940, however, mothers with children under 18 have been reported from 8.6 percent of the labor force to 54 percent in 1980.

Along with the shift of mother's position there should also be a drastic shift of time allocation. As Bogdan (1980) put it, if one could envision the time space of a mother's life as a large upside down triangle, the top third part of triangle representing house and "entertainment", the middle
third "family", and the bottom third "me and work". Before taking a job outside the home, there should be a drastic change of the top and bottom third of triangle.

The problem of support is another area of difficulty for professional women in their family lives. For many women, traditional family life with careers has meant that they must really carry two jobs. Women must really try to combine career and family. This combination not only is not considered burdensome or anything out of ordinary; instead, it is considered by many to be the absolute responsibility of women to do it well. Managing a home, career, and being an effective parent is difficult. Walker and Kuk (1990) suggested that the issue is not "whether they can do both" but "how to do both" and at what cost to "have it all"--the family, career, and marriage. Walker and Kuk's ten-year longitudinal study of a group of college women found that combining career and managing a household was the main problem for the subjects and not combining career and marriage.

Another area of difficulty for professional women is that their lives center around problems of mobility. Traditional life limits career mobility for women. Many women do not feel that they can move to take jobs in a different community. Consequently they end up making second choices in their career; allowing their husbands' career to become primary.

Marginality is another area of constraint. Women who
have entered non-traditional female fields are often seen as outsiders. They have a difficult time being accepted, and often perceived as strange or different. They may find themselves on the periphery rather than in the middle of the professional and socialization process; thus rarely they have equal access to mentors. The difficulty of identifying with other women creates mentoring problems. In a study in 1978 (Walker and Kuk, 1990), 53.3 percent of women indicated that they had not had a mentor at any time in their lives. Another area of concern is internal, psychological, or self imposed restraints. This restraints are often generated because of the lack of representiveness in the external world can produce fear of success and fear of visibility to the extent that a woman can actually hinder her own advancement in the society.

It is interesting to note that socialization theories and research findings strongly suggest the need and the importance of role models in education of men and women (Antonucci, 1980). The difficulty for professional women is finding models in the social context of their particular situation, or as Biklen and Brannigan (1980) put it, in finding the "models of situation".

Increasing flexibility in occupation is one solution for diminishing constraints. For women in Higher education, for example, the key years in attainment of tenure usually coincide with the years of having children and building a family. The structure of nonacademic occupations, in
particular, is very inflexible. Maternity and parenting leaves must be job protected with no loss of seniority rights or benefits (Biklen and Brannigan, 1980; Walker and Kuk, 1990).

Another solution for diminishing family constraints is increasing fathers' involvement. Keller (1980) suggested that society and its institutions need to appreciate the importance of the father's role and encourage joint participation in child-rearing. There should be more involvement by fathers and the child development programs should pay more attention to the importance of the role of fathers in child rearing in today's society.

Finally, an increase in the number of women in the professional positions would enable women to feel less marginal. It will provide role models and role situations and establish group norms.

## Women's Studies Programs

What we experience today is the result of three waves of feminist movements. The small feminist group of the first wave, starting in early 1800's, believed in their equality to man in every regard. The newer generation who took their places in 1890, were less radical than their predecessors.

The second wave, like the first, grew out of struggle for the rights of blacks. Like the first wave, it also emphasized equality. Feminist research starting at this time focused on the socialization of women. However, women's
attempts to enter the world of men were only partially successful due to the national conservatism.

Coinciding with the emergence of Black Power in the late sixties and seventies, once again, feminists returned to the cult of true womanhood. Like the black community celebration of those aspects of black culture that contrasted with the dominant culture, feminists celebrated the feminine labeled characteristic of nurturance, especially as it related to peace and caring relationships (Farnham, 1987).

The feminist Enlightenment that began in the nineteen sixties and seventies turned to academe for some answers and higher education responded in form of Women's Studies. San Diego State University offered its first Women's Studies Program as recently as 1970. Indiana University, one of the pioneers of this movement, offered its first course in 1969, and in 1973 it introduced it's Women's Studies Program. Catharine Stimpson, among the most knowledgeable students of the Women's Studies, tells us that while in 1969 there were only sixteen Women's Studies courses, by 1982 the number increased to 20,000 courses and 450 certificate/degreegranting programs in the United States.

The national Women's Association reported that in 1984, 150 schools were giving Bachelor's degrees in Women's Studies, 50 were giving Master's degree, and about a dozen, the doctorate. There were in addition, no fewer than 30 centers for research about women.

Leadership Programs for Women in Higher Education

In 1973 a series of programs for women were established to promote and encourage women leaders. Some of these programs were:

- Institute for Administrative Advancement (IAA) which evolved into a coeducational program.
- Higher Education Resource Service (HERS): HERS-New England, HERS Mid-Atlantic (now HERS-MidAmerica), and HERS West. HERS MidAmerica in conjunction with Mawr College has been sponsoring the Summer Institute for Women in Higher Education Administration since 1976.
- Office for Women in Higher Education: This is a program offered through the ACE.
- ACE's National Identification (NIP) Program: In 1977 ACE/NIP was established for the Advancement of Women in Higher Education. Among the visible components of ACE/NIP are the ACE National Forums, which are designed to build a series of interlocking networks of men and women leaders who are committed to women's leadership.
- in 1980 Focus on Minority Women's Advancement (FMWA) was another product of ACE/NIP.
- Leaders for the 80's Project: known as National Institution for Leadership Development since 1981, also established in 1973, was the American Association of Women in Community and Junior Colleges (AAWCJC) and Leaders for the 80's project.

There are many success stories with these programs such
as the emergence of 60 college women presidents, including 4 black women, who serve among other 300 women as CEO's in the United States.

Summary

With the crisis in higher education, it is essential to maintain viability and to respond effectively to the changing needs of the society. This can only be achieved through effective leadership. A major focus of leadership studies should be on the department chair/heads, because the department is the heart of the institution and because the real business of every institution is conducted at the departmental level. Therefore the heads of departments have a unique role in terms of being faculty and administrator at the same time.

It should be recognized that a changing student body demands diversity in leadership, and this in turn makes the inclusion of women leaders essential. Also the new and Changing leadership models of human relationship, and the emphasis on nurturance and the caring aspects of leadership necessitate such change. As Michael Freedman (1980, p.34) put it: "... The movement to seat women in positions of leadership can not possibly be anything less than radical. It may come to pass that the feminist movement we observe today will prove to be among the most far-reaching revolutions in the history of our species."

## CHAPTER III

## METHODOLOGY

## Introduction

There are numerous studies on the leadership styles of academic administrators, but very few have included department heads/chairs, and none have featured female department chair/heads. The purpose of this study was to examine the self-perceived leadership styles of female department head/chairs in doctoral granting and research institutions nationwide. More specifically, the female department heads were asked how they would behave in certain leadership situations. Details concerning the research design, data collection including planning and development, instrumentation, and survey procedures are included in this chapter.

## Research Design

Descriptive research was used to meet the objectives of the study. Descriptive research is used to obtain information concerning the current status of the phenomenon. The purpose of this method was to describe "what exists" with respect to variables or conditions in a given situation. This method does not require any manipulation of
variables by the researcher (Sowell \& Casey, 1982). Surveys, correlational studies, and developmental studies are all examples of descriptive methodology. A survey method was used for this study in order to reach a randomly selected sample of female academic department head/chairs in research and doctoral granting institutions throughout the United States.

Sample Selection

Based on the Carnegie Foundation Classification of American institutions of higher education (1987), twentythree or ten percent of the institutions of eight categories of private and public Research Type I and II and private and public Doctorate-Granting Degrees I and II were drawn at random. These institutions are listed in their respective categories by sector and by type in Appendix E.

Because the population varied according to geographical location and by special groupings, a stratified sampling technique was used. Furthermore, because these locations and groups varied a great deal by size, proportional sampling within the strata was necessary.

The sample was randomly selected from a population of 213 institutions ranging in enrollment from 577 students at Ohio's Union for Experimenting Colleges and Universities/ Undergraduate Studies Program and Union Graduate School (in Private Doctorate-Granting Colleges and Universities Category I) to 63,653 , in the case of the University of

Minnesota at Twin Cities (in Public Research University I). A breakdown of the sample based on the type (Research I and II, Doctorate-granting I and II), and sector (public/ private) is presented in Table I.

TABLE I
FREQUENCY BY SECTOR AND BY TYPE OF INSTITUTIONS

| Type of <br> Institution | Population |  |  | Sample |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Public | Private | Total Public Private |  |  |
| Research I | 70 | 45 | 25 | 8 | 5 | 3 |
| Research II | 34 | 26 | 8 | 4 | 3 | 1 |
| Doctorate I | 51 | 30 | 21 | 5 | 3 | 2 |
| Doctorate II | 58 | 33 | 25 | 6 | 3 | 3 |
| Totals | 213 | 134 | 79 | 23 | 14 | 9 |

Instrument

Leader Behavior Analysis II-Self LBA II-SELF

One of the instruments used in this study was the Leader Behavior Analysis II-Self (LBA II-Self), an instrument developed in 1985 by Kenneth Blanchard and his associates from the Situational Leadership Model of Hersey
and Blanchard, which was established in 1970. LBA II-Self was utilized to assess female academic department chair/head self-perceived leadership style, style range/flexibility and style adaptability/effectiveness. This instrument is a revised form of what was formerly called Leader Adaptability and Style Inventory (LASI) and Leader Adaptability and Effectiveness Development (LEAD) consisting of 12 items (Hersey and Blanchard 1981). Since its initial publication in 1974, it has been refined and modified by its authors.

LAB II-Self is based on the Situational Leadership Model II, developed in 1984-85 by Blanchard, Zigarmi and Zigarmi. The model, also known as the Tri-Dimensional Management Style Theory and Life Cycle Theory of Leadership presents an interplay of task and relationship behavior, with the maturity/readiness/developmental level of the followers exhibited on a specific task. LBA II-Self and LBA II-Other, with 20 items each, are both offshoots of the original LBA with 12 items. The instrument consists of a 20item situational paper and pencil test measuring (1) style/ leadership style, (2) style range/style flexibility, and (3) style adaptability/style effectiveness, with four alternative actions presented for each item. The four alternative actions reflect respondent's leadership behavior if confronted with that particular situation. The four alternative actions represent the four leadership styles of:

S1) High Directive, Low Supportive Behavior (telling/ directing);
S2) High Directive, High Supportive Behavior (selling/ persuading);
S3) High Supportive, Low Directive Behavior (participating);
S4) Low Supportive, Low Directive Behavior (delegating).

These reflect styles which the respondents believe would most closely describe their own behavior in that type of situation. Leadership styles and style range/flexibility are determined by four different style scores. Style flexibility is also determined by primary, secondary, and developing scores. The flexibility score is a numerical indicator that ranges from zero to thirty (0-30). The higher score indicates higher style flexibility which means that the respondent uses all of the four styles more or less equally. Lower scores indicates a low style flexibility, which means that the respondent usually selected the same one or two styles for any situation.

The style adaptability (effectiveness score) presents respondents' four levels of effectiveness, poor (P), fair (F), good (G), and, excellent (E), as defined by the authors. The total effectiveness score is obtained by adding the respondent's score on each level. The range for leader effectiveness varies from twenty to eighty (20-80). Again, a higher score indicates a higher rate of effectiveness, which means that the respondent chose more "good" and "excellent" choices. A lower score suggests low effectiveness, which means the respondent had a great number of "poor" and "fair" leadership style choices for the 20 items. (For complete
scoring procedures of LAB II-Self, see Appendix B). Completion of the questionnaire requires about 15 to 20 minutes.

## Demographic questionnaire

A questionnaire designed by the investigator was also mailed to the sample to obtain information from the academic department chair/heads in two major areas of personal and institutional characteristics.

Personal information dealt with age, ethnic background, marital status, number of children living at home, the role of subject as primary or secondary household provider, and mother's education and career. Institutional questions dealt with the previous administrative experience, position title, academic rank, number of years in current position, field of study, teaching experience, previous administrative experience, program size, faculty size (FTE), and student enrollment size. This part of the instrument consisted of 16 items and was based, in part, on selective items used in other studies (Nix, 1989; Roseman, 1988; Montgomery, 1988) to collect demographic information from higher education administrators.

Data Collection

Following the selection of institutions utilizing a random number table (Isaac and Michael, 1981), the Higher Education Directory (Torregrosa, 1989) and Petersons's

Register of Higher Education 1991 (Petersons, 1990) was used to identify the academic affairs chief officer of each selected institution. On March 27, 1991, a personal letter from the advisor and the author on a department letterhead was mailed to the academic vice-presidents. The vicepresidents were invited to participate in the study by providing a list of the female academic department head/ chairs on their campuses (see Appendix E for the list of institutions that were contacted). On April 19, 1991, follow-up letters were sent to the academic chief officers as encouragement to provide the list.

While schools were being contacted for list of possible subjects, attempts were made to locate Hersey \& Blanchard, the authors of the LEAD questionnaire. Unfortunately, their current addresses were changed since the last publication of their whereabouts. Finally, after numerous phone attempts, the researcher was able to reach them both. Hersey and Blanchard were working independently. Hersey and Associates were still working with original LBA with 12 items. Blanchard Training and Development, Inc., was using LBA II with 20 items. Finally, after numerous conversations with both organizations, the use of LBA II was approved by Dr. Zigarmi from Blanchard Training and Development, Inc., of Escondido, California (see Appendix A). On April 10, 1991, a written request for the copies of the questionnaire was mailed to "bTd". The researcher received 170 questionnaires by September 10, 1991, and the mailing immediately
proceeded.
Due to the wide geographical range and the size of sample, a mail survey was used to collect data from the list of female academic department head/chairs which was provided by the institutions. Although the mailed letter was clear about the type of sample needed, some lists contained a list of all females administrators in their respective institutions. After follow up letters, the final sample list produced seven respondents who were director/ coordinator and whose rank was not comparable to the traditional position title of chair/head.

The first mailing included a cover letter printed on departmental letter-head signed by the advisor and candidate using the official title, name and address of each department chair/head received from her respective institution. The letter introduced the study and requested the chair to complete the questionnaire at her earliest convenient time (see Appendix D). This was accompanied with the biographical questionnaire, LBA II-Self, and a stamped, self-addressed envelope to facilitate the return of the questionnaire. A numerical coding system was used for the follow-up purposes and was destroyed after hearing from respondents.

Sixty-two percent ( $n=89$ ) of the questionnaires were received by September 25 , 1991. Sixty-one percent ( $n=87$ ) had completed both demographic \& LBA II-Self. Two respondents did not complete the demographic questionnaire. Immediately,
a follow-up letter and a copy of the questionnaire was mailed to both.

A follow-up letter was mailed to each non-respondent ( $n=58$ ) on September 25,1991 , to encourage participation in the study, and requesting response if not answered yet (see Appendix D). At the same time, eleven more incomplete or blank responses were received from those who had refused to participate along with comments which stated a variety of reasons for not participating. By October 10, 1991, two missing demographic questionnaires were returned. In addition, only one respondent from the follow-up pool returned a blank questionnaire, commenting she was still not responding due to the corporate orientation and unsuitability of the questionnaire to her position.

The overall response rate for the study was seventy-one percent (n=101) which consisted of a total of sixty-two percent ( $n=89$ ) usable questionnaires.

## Statistical Analysis

The responses to the questionnaires were coded, and a data file was constructed for statistical analysis. After the completion of data input, the printout of the computer data file was checked manually against a number of randomly selected questionnaires to assure the accuracy of data input. A special program was also designed to further test and detect errors in the computer data file. With the help from the programs provided in The SAS User's Guide (1989),
the following statistical procedures were used to analyze the data:

Univariate statistics were generated to provide detailed information on the demographic characteristics of the sample. The presentation of composition of sample by way of means, standard deviations, frequencies, and percentages was important in that it would provide a basis to determine the plausibility of inferences to analogous groups for the future researchers.

One of the primary objectives of this study was to see whether or not the female department chair/heads had a dominant leadership style. In order to accomplish this task, frequency and percentage tables were provided. Pearson product moment correlation coefficients were calculated to determine the relationship between the selected personal/ institutional variables and leadership style, style flexibility and style effectiveness. The same was repeated for institutions by sector (private and public) as well as by type (research I \& II and doctorate-granting I \& II) of institutions.

One way analysis of variance (ANOVA) was used to determine the significant differences in leadership style, style flexibility, and style effectiveness of the respondents by sector and type of institutions. t test was also used to see whether or not there was a significant difference between the leadership styles of respondents by sector and by type.

Validity and Reliability

Information on validity and reliability for LBA II-Self was obtained from Blanchard Training and Development, Inc. in California (Zigarmi, Edeburn, and Blanchard, 1991).

Validity

The authors of LBAII (Zigarmi, Edeburn, Blanchard, 1991) reported several types of validity, i.e., content validity, construct validity, and predictive validity. Content validity rested mainly on appeals to reason regarding the adequacy and appropriateness of content translation (support, director, and developmental level) into test items.

Construct validity is the most difficult and complex type of validity. The subconstructs of leadership--Style (1-4), Flexibility, and Effectiveness--were validated by Wilson Multi-Level Management Survey (MLMS), which is designed to measure 23 subconstruct or characteristics of Leader Behavior, already subjected to intensive construct validity procedures. The LBA was also correlated to the Leader Behavior Description Questionnaire (LBDQ) which has a distinguished history of validity and measures the same constructs of "task" and "relationship" behavior. S1 and S2 scores on a test of significance definitely correspond to the LBDQ "structure" dimension at the . 0001 level. The S2 and S3 styles correspond to the LBDQ's "relationships"
dimension at the . 0001 level.

## Reliability

The purpose of establishing the reliability of $a$ particular instrument is to reduce measurement error. Several procedures have been used to examine the reliability of the instrument:

- Test/Retest model
- Alternative form model (two studies have been done)
- Internal Consistency model (Cronbach's-coefficient Alpha was used in their study).

A study by Nye (1986) produced an Index of Stability (Test/Retest) coefficient of .72 on Flexibility score. In addition, Edeburn and Zigarmi (1990) reported Internal Consistency Reliability of . 57 (S1), . 50 (S2), . 55 (S3), and . 56 (S4) for 215 subjects.

## RESULTS

## Introduction

The purpose of this chapter was to present the results of the analysis for the data collected in this study. Data were obtained using a demographic questionnaire and the LBA II-Self instrument developed by Blanchard Training and Development, Inc., in 1984-85. Five research questions were developed concerning the leadership style, style flexibility, and style effectiveness of female academic department chair/head in research and doctorate-granting institutions. Included in this chapter are a discussion of the personal and institutional characteristics of the respondents who comprised the sample, followed by corresponding analysis through statistical procedures of univariate statistics (by way of means, standard deviations, frequencies, and percentages), Pearson product moment correlation coefficients, one way analysis of variance (ANOVA), Duncan Multiple Range test, and t-test. Statistical procedures for each item are presented by 1) total sample, 2) by sector (public, private), and 3) by type (research and doctorate) of institutions.

## Presentation of Findings

The questionnaire was mailed to 143 chair/heads from 23 public and private, research and doctorate-granting institutions throughout the United States (Table II). A total of 89 or 62 percent of the subjects responded with usable questionnaires. Of these, 81 percent or 72 were from the public sector and 19 percent ( $\mathrm{n}=17$ ) from the private. Sixty percent or 56 of the completed questionnaires were from research institutions and 37.1 percent ( $n=33$ ) from doctorate-granting institutions. This distribution reflects a proportional sampling of institutions classified by Carnegie classification. An additional 12 subjects returned their questionnaire, but for a variety of reasons they chose not to respond to some or all items, and therefore they were not included in the study. The most frequent reasons given were heavy workload, time demands, middle of a crisis, and corporate oriented questions. Table II presents the frequency and percent of responses by the type of institutions and by the sector.

TABLE II
FREQUENCY AND PERCENT OF PARTICIFATING INSTITUTIONS BY SECTOR AND BY TYPE

| Institutions | Frequencies | Percent |
| :---: | :---: | :---: |
| 1- Research I Public | 28 | 31.5 |
| 2- Research I Private | 2 | 2.2 |
| 3- Research II Public | 20 | 22.5 |
| 4- Research II Private | 6 | 6.7 |
| 5- Doctorate I Public | 16 | 18.0 |
| 6- Doctorate I Private | 2 | 2.2 |
| 7- Doctorate II Public | 8 | 9.0 |
| 8- Doctorate II Private | 7 | 7.9 |
| Total | 89 | 100.00 |

## Research Question One

Do female academic department chair/heads as a group have a dominant leadership style?

Female department head/chairs were asked to respond to 20 questions with four possible answers on the LBA II-Self Form. The answers were calculated in two different scores. One score measured the style flexibility in terms of primary, secondary and developing styles, and the other explored style effectiveness (see Appendix B for scoring procedures).

Results indicated that, as a whole, High Supportive, Low Directive (S3- participating) was the dominant primary style of the female department chair/heads in the public and
private research and doctorate-granting institutions. Tables III and IV provide the percentages and numbers by sector and by type or institutions.

TABLE III
FREQUENCY AND PERCENT OF LEADERSHIP STYLES OF FEMALE ACADEMIC DEPARTMENT HEAD/CHAIRS BY SECTOR OF INSTITUTION

| Institution* | $\begin{gathered} \text { Telling } \\ \text { S1 } \end{gathered}$ | $\begin{gathered} \text { Selling } \\ \text { S2 } \end{gathered}$ | Participating S3 | $\begin{gathered} \text { Delegating } \\ \text { S4 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |

## PRIMARY 1

| Total Sample | $6.7(n=6)$ | $85.4(n=76)$ | $7.9(n=7)$ |  |
| :--- | :--- | :--- | :--- | ---: |
| Public | - | $6.9(n=5)$ | $86.1(n=62)$ | $6.9(n=5)$ |
| Private | - | $5.9(n=1)$ | $82.4(n=14)$ | $11.8(n=2)$ |

## PRIMARY 2

| Total Sample | - | $50.0(\mathrm{n}=1)$ | - | $50.0(\mathrm{n}=1)$ |
| :--- | :--- | :---: | :--- | ---: |
| Public | - | - | - | $100.0(\mathrm{n}=1)$ |
| Private | - | $100.0(\mathrm{n}=1)$ | - | - |

## SECONDARY 1

| Total Sample | $5.5(\mathrm{n}=4)$ | $24.7(\mathrm{n}=18)$ | $8.2(\mathrm{n}=6)$ | $61.6(\mathrm{n}=45)$ |
| :--- | :---: | :--- | :--- | :--- |
|  |  |  |  |  |
| Public | $6.6(\mathrm{n}=4)$ | $26.2(\mathrm{n}=16)$ | $8.2(\mathrm{n}=5)$ | $59.0(\mathrm{n}=36)$ |
| Private | - | $16.7(\mathrm{n}=2)$ | $8.3(\mathrm{n}=1)$ | $75.0(\mathrm{n}=9)$ |

## SECONDARY 2

| Total Sample | - | $59.1(\mathrm{n}=13)$ | $22.7(\mathrm{n}=5)$ | 18.2(n=4) |
| :---: | :---: | :---: | :---: | :---: |
| Public | - | $61.1(\mathrm{n}=11)$ | $16.7(\mathrm{n}=3)$ | 22.2( $\mathrm{n}=4$ ) |
| Private | - | 50.0(n=2) | $50.0(\mathrm{n}=2)$ |  |

As Table III indicates, the primary style of only 7 subjects (7.9\%) was Low Supportive and Low Directive (S4delegating), while 6 individuals (6.7\%) had High Supportive, High Directive (S2- selling) as their primary leadership style. The results of the calculations also indicated that no subject had Low Supportive, High Directive (S1- telling) as her primary 1, primary 2, or secondary 2 leadership styles. No respondent scored on high supportive, low directive (S3- participating) style for primary 2 choice. Only one respondent had a tie for secondary style of S 2 (selling) and \$4 (delegating), meaning that they used the two styles with the same frequency. Table IV provides the frequency and percent of leadership styles by type of institution (research and doctorate granting).

TABLE IV
FREQUENCY OF LEADERSHIP STYLES OF FEMALE
ACADEMIC DEPARTMENT HEAD/CHAIRS
BY TYPE OF INSTITUTION

|  | Telling | Selling | Participating |
| :---: | :---: | :---: | :---: |
| Institution* | S1 | S2 | Delegating |

PRIMARY 1

| Total Sample | - | $6.7(n=6)$ | $85.4(n=76)$ | $7.9(n=7)$ |
| :--- | :--- | :--- | :--- | :--- |
| Research | - | $8.0(n=5)$ | $83.9(n=47)$ | $7.1(n=4)$ |
| Doctorate | - | $3.0(n=1)$ | $87.9(n=29)$ | $9.1(n=3)$ |

PRIMARY 2

| Total Sample | - | $50.0(\mathrm{n}=1)$ | - | $50.0(\mathrm{n}=1)$ |
| :--- | :--- | :--- | :--- | :--- |
| Research | - | $50.0(\mathrm{n}=1)$ | - | $50.0(\mathrm{n}=1)$ |
| Doctorate | - | - | - |  |

## SECONDARY 1

| Total Sample | $5.5(\mathrm{n}=4)$ | $24.7(\mathrm{n}=18)$ | $8.2(\mathrm{n}=6)$ | $61.6(\mathrm{n}=45)$ |
| :--- | :--- | :--- | ---: | ---: |
| Research | $8.2(\mathrm{n}=4)$ | $28.6(\mathrm{n}=14)$ | $6.1(\mathrm{n}=3)$ | $57.1(\mathrm{n}=28)$ |
| Doctorate | - | $16.7(\mathrm{n}=4)$ | $12.5(\mathrm{n}=3)$ | $70.8(\mathrm{n}=17)$ |

## SECONDARY 2

| Total Sample | - | $59.1(\mathrm{n}=13)$ | $22.7(\mathrm{n}=5)$ | $18.2(\mathrm{n}=4)$ |
| :--- | :--- | :--- | :--- | :---: |
|  |  |  |  |  |
| Research | - | $27.3(\mathrm{n}=3)$ | $36.4(\mathrm{n}=4)$ | $36.4(\mathrm{n}=4)$ |
| Doctorate | - | $90.9(\mathrm{n}=10)$ | $9.1(\mathrm{n}=1)$ | - |

* Total Sample ( $n=89$ ) Research ( $n=56$ ) Doctorate ( $n=33$ )

Distribution of the sample on the basis of research and doctorate-granting institutions indicated that 7 individuals (7.9\%) had Low Supportive and Low Directive (S4- delegating)
leadership style and that 6 or 6.7 were High Supportive, High Directive. No respondent chose low supportive, high directive (S1- telling) as their primary 1, primary 2 or secondary 2 leadership style, and nobody fell into the high supportive, low directive (S3- participating) category for primary 2 choice. Only two respondents had a tie for secondary style of S 2 (selling), and $S 4$ (delegating), meaning that they used the two styles with the same frequency.

Style Range/Flexibility. According to the model, style range/flexibility is a number that can range from 0-30. Calculations showed that style flexibility range for the total sample in the study was from 4-24 on the style flexibility graph (see Appendix B). Authors of LBA II stipulated, a lower score of 4 indicated low style flexibility, which means that the same one or two styles were selected for nearly every situation. A High score of 24 indicated high style flexibility which means that all of the four styles were used more or less equally. Table V shows a break down of flexibility by total population, by sector, and by the type of institutions.

TABLE V

STYLE FLEXIBILITY SCORES BY TOTAL SAMPLE, BY SECTOR, AND BY TYPE

| Institution | Flexibility Range <br> Range <br> $(0-30)$ | Mean Scores |
| :--- | :---: | :---: |
| Total Sample | $4-24$ | 15.6 |
| By Sector: |  |  |
| Public | $6-24$ | 15.34 |
| Private | $4-22$ | 13.88 |
| By Type: |  |  |
| Research | $6-24$ | 14.64 |
| Doctorate | $4-24$ | 15.79 |

Style Adaptability/Effectiveness. According to the model, style effectiveness is also a number ranging from 2080. As authors of situational model and LBA II stipulated, to score high on style effectiveness, one must not only show a high level of flexibility in style selection but must also choose the leadership style that is most appropriate for each situation.

Calculations showed that the style effectiveness range for total sample was 41-63. A lower score of 41 indicated lower style effectiveness, which means that a greater number of "fair" or "poor" leadership style choices for the 20 situations were chosen. A higher score of 63 suggested high effectiveness which means that a great number of "good" or
"excellent" leadership style choices were made. Table VI shows a break down of style effectiveness by the total sample, by sector, and by the type of institutions.

TABLE VI
STYLE EFFECTIVENESS SCORES BY TOTAL SAMPLE, BY SECTOR AND BY TYPE OF INSTITUTIONS

| Institutions | Style Effectiveness Range (20-80) | Mean Scores |
| :---: | :---: | :---: |
| Total Sample | 41-63 | 50.17 |
| By Sector: |  |  |
| Public | 41-63 | 50.36 |
| Private | 41-60 | 49.41 |
| By Type: |  |  |
| Research | 41-63 | 49.51 |
| Doctorate | 41-62 | 51.30 |

## Research Question Two

Are selected personal variables of age, ethnic background, marital status, number of children living at home, being the sole support of the household, mother's education/career related to the leadership behavior of female department head/chair?

AGE. 57.3 percent of the respondents were in the 36-50 age group ( $\mathrm{n}=51$ ), 41.6 percent were in the over 50 age group ( $n=37$ ) and only 1 percent was in the under 35 age group
( $\mathrm{n}=1$ ). The age of the female academic department head/chair is shown in Table VII by sector and by type.

TABLE VII
FREQUENCY AND PERCENT OF AGE OF FEMALE ACADEMIC DEPARTMENT HEAD/CHAIR BY SECTOR AND BY TYPE

| Institution | 35 \& Under | 36-50 | Over 50 |
| :---: | :---: | :---: | :---: |
| Total Sample ( $\mathrm{n}=89$ ) | $1.1(\mathrm{n}=1)$ | 51.3(n=51) | 41.6(n=37) |
| By Sector: |  |  |  |
| Public ( $\mathrm{n}=72$ ) | $1.4(\mathrm{n}=1)$ | $54.2(\mathrm{n}=39)$ | 44.4(n=32) |
| Private ( $\mathrm{n}=17$ ) |  | 70.6(n=12) | 29.4(n=5) |
| By Type: |  |  |  |
| Research ( $\mathrm{n}=56$ ) | 1.8( $\mathrm{n}=1$ ) | 53.6 ( $\mathrm{n}=30$ ) | 44.6(n=25) |
| Doctorate ( $\mathrm{n}=33$ ) | - | 63.6 ( $n=21$ ) | $36.4(n=12)$ |

The correlation coefficient calculations indicated that there was no significant relationship between age and leadership style, style flexibility, or style effectiveness in public and private institutions. The same was also true for the relationship between these variables and age in two different types of institutions (Ie., doctorate and research). One way analysis of variance (ANOVA) also showed no significant difference in leadership style, style flexibility and style effectiveness of the age groups. This was true both for the type of institutions and private/
public sector.

Ethnic or Racial Background. A majority or 95.5 percent ( $n=85$ ) of the respondents were Caucasian. These findings were comparable to Roseman's study (1988). The remaining 4.5 percent represented Native American ( $n=1$ ), African American ( $n=1$ ), Hispanic ( $n=1$ ), and Asian ( $n=1$ ). These findings are slightly lower than the 9 percent represented in Roseman's study (1988). The distribution of sample based on race is presented in Table VIII.

TABLE VIII
FREQUENCY AND PERCENT OF RACE OF FEMALE ACADEMIC DEPARTMENT HEAD/CHAIR

BY SECTOR AND BY TYPE

| Institution | Caucasian | Non Caucasian |
| :---: | :---: | :---: |
| Total Sample ( $\mathrm{n}=89$ ) | 95.5(n=85) | $4.5(\mathrm{n}=4)$ |
| By Sector: |  |  |
| Public ( $\mathrm{n}=72$ ) | 95.8(n=69) | $4.2(\mathrm{n}=3)$ |
| Private ( $\mathrm{n}=17$ ) | 94.1(n=16) | $5.9(\mathrm{n}=1)$ |
| By Type: |  |  |
| Research ( $\mathrm{n}=56$ ) | 94.6(n=53) | $5.4 \quad(\mathrm{n}=3)$ |
| Doctorate ( $\mathrm{n}=33$ ) | 97.0( $\mathrm{n}=32$ ) | $3.0 \quad(\mathrm{n}=1)$ |

The correlation coefficient calculations indicated no significant relationship at $p<0.05$ between the independent
variable of race and dependent variables in public, private, and research institutions. Only in one category, the doctorate institution, correlation of -.39 produced significant results at $p<.03$. Because of the small number of non-Caucasians, however, the results may not be valid. It should be mentioned that analysis of variance did not indicate any significant difference between Caucasian and non-caucasian on leadership style, style flexibility, and effectiveness in public, private, doctorate, or research institutions.

Marital Status. 58.4 percent $(n=52)$ of the respondents were currently married, 12.4 percent ( $\mathrm{n}=11$ ) had never married, and 29.2 percent ( $\mathrm{n}=26$ ) were once married. These findings are comparable to those of Shakeshaft (1989). Reporting on a synthesis of 27 studies that had explored marital status of female administrators, she found that 63.5 percent of all women administrators were married. The percentage was lower for female administrators in the institutions of higher education (Shakeshaft, 1989). Table IX shows the marriage status of female academic department head/chair by sector and by type:

TABLE IX
FREQUENCY AND PERCENT OF MARITAL STATUS OF FEMALE ACADEMIC DEPARTMENT HEAD/CHAIR BY SECTOR AND BY TYPE

| Institution | Now Married | Not Married |
| :---: | :---: | :---: |
| Total Sample ( $\mathrm{n}=89$ ) | $58.4(\mathrm{n}=52)$ | 41.6 ( $n=37)$ |
| By Sector: |  |  |
| Public ( $\mathrm{n}=72$ ) | $59.7(\mathrm{n}=43)$ | 40.3(n=29) |
| Private ( $\mathrm{n}=17$ ) | 52.9 ( $n=9$ ) | 47.1(n=8) |
| By Type: |  |  |
| Research ( $\mathrm{n}=56$ ) | $62.5(\mathrm{n}=35)$ | $37.5(\mathrm{n}=21)$ |
| Doctorate ( $\mathrm{N}=33$ ) | $51.5(\mathrm{n}=17)$ | $48.5(\mathrm{n}=16)$ |

Computed correlation coefficients for the relationship and analysis of variance for difference between marital status and leadership style, style flexibility, and style effectiveness produced no significant results at $p<.05$ for public, private, doctorate, or research institutions.

Number of Children at Home. 67.4 percent of respondents ( $n=60$ ) reported that they had no children at home. Eighteen or 20.2 percent had only one child, and 12.4 percent ( $\mathrm{n}=11$ ) had two or more children.

TABLE X
FREQUENCY AND PERCENT OF NUMBER OF CHILDREN OF FEMALE ACADEMIC DEPARTMENT HEAD/CHAIR BY SECTOR AND BY TYPE

| Institution | Now at Home |
| :--- | :--- |
| Total Sample ( $n=89$ ) | $32.6(n=29)$ |
|  |  |
| By sector: | $33.3(n=24)$ |
| Public $(n=72)$ | $29.4(n=5)$ |
| Private $(n=17)$ | $35.7(n=20)$ |
| By Type: | $27.3(n=9)$ |
| Research $(n=56)$ |  |
| Doctorate $(n=33)$ |  |

The correlation coefficient for the relationship and analysis of variance for the difference revealed no significant relationship or difference at $p<.05$ level for the independent variable of the number of children and dependent variables of style, style flexibility, and style effectiveness either by sector or by type.

Household Provider. Thirty-seven or 41.6 percent of the respondents were sole providers for their household. In the public sector, 43.1 percent ( $n=31$ ) were the sole support of their household while 35.3 percent ( $n=6$ ) were in private sector. Also 35.7 percent ( $n=20$ ) were sole provider of their household in research institutions while 51.5 ( $n=17$ ) were sole provider for their family in doctorate-granting institutions.

Using both correlation coefficient and analysis of variance techniques, there was no significant relationship or difference for the independent variable of household provider and all dependent variables--style, style flexibility, and style effectiveness either by sector or by type--at the $\mathrm{p}<.05$ significance level.

Mother's Education. Forty-two or 47.2 percent ( $n=42$ ) of the respondents' mothers had a high school diploma; 32.6 percent ( $n=29$ ) had a college degree; 12.4 percent ( $n=11$ ) had graduate studies; and 7.9 percent ( $n=7$ ) did not finish high school. One respondent reported that her mother was too impoverished to make it to high school. Some respondents also commented that their mother only completed their education after the children were in high school or out of the home. In order to compare these results with the findings of Shakeshaft (1988), mother's education was collapsed into two categories--those with high school/ college education and those with less than high school education (Table XI).

# FREQUENCY AND PERCENT OF MOTHER'S EDUCATION OF FEMALE ACADEMIC DEPARTMENT HEAD/CHAIR BY SECTOR AND BY TYPE 

| Institution | High School / College \& Graduate Education | Less Than High School |
| :---: | :---: | :---: |
| Total Sample ( $n=89$ ) | 92.1( $n=82)$ | $7.9(n=7)$ |
| By Sector: |  |  |
| Public ( $\mathrm{n}=72$ ) | 90.3( $\mathrm{n}=65$ ) | $9.7(\mathrm{n}=7)$ |
| Private (n=17) | 94.1( $n=16$ ) | $5.9(\mathrm{n}=1)$ |
| By Type: |  |  |
| Research ( $\mathrm{n}=56$ ) | $92.9(\mathrm{n}=52)$ | $7.1(n=4)$ |
| Doctorate ( $n=33$ ) | $90.9(\mathrm{n}=30)$ | $9.1(n=3)$ |

These findings are comparable to Shakeshaft's study (1988) of thirteen dissertations which found that most mothers of women administrators had either a high school or college education. Table XI provides the distribution of mother's education of the female academic department chair/ heads by sector and by type.

Using correlation coefficience, there was no significant relationship between mother's education and the dependent variables of style, style flexibility, and style effectiveness either by sector or by type at p < . 05 significance level. Analysis of variance based on the mother's education did not also find any significant difference for the dependent variables.

Mother's Career. Forty-seven or 52.8 percent of the respondents' mothers worked outside the home while children were growing up. In her study of 1989, Shakeshaft found that the majority of the mothers of female white administrators were homemakers. In this study, the mothers of 47.2 percent of the respondents were homemakers. It should be mentioned, however, that like the question regarding mother's education there was a lack of clarity on whether the "present tense" was the target of the question or the time when the respondent was growing up. Nine subjects or 10 percent of respondents commented that their mothers did not go back to work while the children were young, and only went back to work after the children were in their teens or older. Fifteen respondents reported that their mothers went back to work only on a part time basis. Another respondent wrote that her mother owned her own business.

Mother's career, however, correlated significantly with flexibility in both the total population (.25, p < .05) and in public institutions (.24, p < .05). As Table XII indicates, analysis of variance produced a significant difference on style flexibility between those whose mothers worked and those who did not. Calculation of mean indicated that female academic chair/head whose mothers did not work while they were growing up had a higher style flexibility (mean=16.43) than those who did (mean=13.85).

TABLE XII

> ANALYSIS OF VARIANCE (ANOVA) RESULTS FOR STYLE FLEXIBILITY BY MOTHER'S WORK

| Source | DF | Mean Square | F | P* |
| :---: | :---: | :---: | :---: | :---: |
| Mother's Work | 1 | 147.35 | 5.92 | 0.0170 |
| Error | 87 | 24.88 |  |  |
| Total | 88 |  |  |  |

## Research Question Three

Are selected institutional variables of previous administrative experience, position title, length of time in present position, academic rank, field of study/discipline, teaching experience, departmental program size, faculty and enrollment size, related to the leadership behavior of female academic chair/head?

Previous Administrative Experience. Forty-eight or 53.9 percent of respondents reported previous administrative experience while 44.9 percent ( $n=4$ ) did not have any administrative experience prior to the current position.

Using the correlation coefficient for relationship and analysis of variance for difference, there was no significant relationship or difference between the independent variable of previous administrative experience and dependent variables of leadership style, style
flexibility, and style effectiveness either by sector or by type at $\mathrm{p}<.05$ significance level.

Position Title. Sixty-one or 68.5 percent of respondents were titled chair including interim or acting chair. 7.9 percent $(n=7)$ of respondents were titled "head" 21.3 percent $(\mathrm{n}=19)$ were titled director, and 2.2 percent ( $\mathrm{n}=2$ ) were called coordinator.

Ninety-two percent ( $n=82$ ) of respondents had positions comparable to what is normally regarded as academic department chair/head, and 7.9 percent ( $n=7$ ) of the respondents claimed their position was comparable to the dean or assistant to dean. One respondent wrote that she was an acting coordinator but that her duties were the same as an academic department head. Some of the directors reported that they were holding a multiposition job, one of which was being head of a small department.

The correlation coefficient revealed a significant relationship between position title and style effectiveness in both private sector (.68, p < .003) and research institutions (.37, p < .004).

Analysis of variance for the independent variable of position title revealed a significant difference of 3.73 at $p<.05$ level for the dependent variable of style effectiveness. Calculation of the mean indicated that director/coordinators had a higher style effectiveness with a combined mean of 52.57 as opposed to a mean of 49.33 for department chairs. The department heads, with a mean of
50.43, were not significantly different in their style effectiveness from either of the other two groups. Table XIII shows the result of the analysis of variance for style effectiveness by position title.

TABLE XIII
ANALYSIS OF VARIANCE (ANOVA) RESULTS FOR STYLE
EFFECTIVENESS BY POSITION TITLE

| Source | DF | Mean Square | F | P* |
| :---: | :---: | :---: | :---: | :---: |
| Position Title | 2 | 82.415 | 3.73 | 0.0281 |
| Error | 86 | 22.12 |  |  |
| Total | 88 |  |  |  |

Length in Present Position. The largest single group of the department heads were in the first year of either their acting or interim position ( 23 respondents or 25.8 percent of the total). This was followed by 21 or $23.6 \%$ who had served for two years at the present position. The remainder, 45 or 50.56 percent had served from 3 to 20 years.

The correlation coefficient for the relationship and analysis of variance for the difference revealed no significant relationship or difference at $p<.05$ level for the independent variable of the length of time in present position and dependent variables of style, style flexibility
and style effectiveness either by sector or by type. According to Bennett (1990), the one year interim period works best for the purpose of creativity, while 3-4 years is needed to become effective. It is interesting to note that 20 (22.5\%) of the present sample had served between 3 to 4 years as the department head/chair.

Academic Rank. A majority of the respondents 55.7 percent ( $n=49$ ) were professors, followed by 38.2 percent ( $n=34$ ) associate professor, and 4.5 percent ( $n=4$ ) were assistant professor. Only one respondent reported holding a M.S. degree. The combined percentage of associate, assistant, and others was 44.3 ( $n=39$ ).

The correlation coefficient for the relationship and analysis of variance for the difference revealed no significant relationship or difference at $p<.05$ level for independent variable of the academic rank and dependent variables of style, style flexibility and style effectiveness either by sector or by type.

Field of Study. The classification of fields of study was done in accordance with Nevill's classification (Nevill, 1962, p. 565). He grouped academic fields of study into seven categories of Natural Science, Engineering, Social Science (including Psychology), Humanities and Fine Arts, Business and Commerce, Education, and other (such as Law, Inter-disciplinary, Women's Studies). In the study reported here there was no representative from Humanities and Fine

Arts disciplines in doctorate-granting institutions. Tables XIV and XV show frequency and percent of fields of study by sector and by type.

TABLE XIV
FREQUENCY AND PERCENT OF FIELDS OF STUDY OF FEMALE ACADEMIC DEPARTMENT HEAD/CHAIR BY SECTOR OF INSTITUTION

| Fields of Study* | Total Sample | Public | Private -- |
| :---: | :---: | :---: | :---: |
| NS | 23.5(n=20) | 25.0 ( $\mathrm{n}=17$ ) | 17.6 ( $\mathrm{n}=3$ ) |
| E | $5.9(\mathrm{n}=5)$ | $5.9(\mathrm{n}=4)$ | $5.9(\mathrm{n}=1)$ |
| SS | $32.9(\mathrm{n}=28)$ | 32.4(n=22) | 35.3( $\mathrm{n}=6$ ) |
| H | $8.2(\mathrm{n}=7)$ | 8.8( $\mathrm{n}=6$ ) | $5.9(\mathrm{n}=1)$ |
| B | $3.5(\mathrm{n}=3)$ | $2.2(\mathrm{n}=2)$ | $5.9(\mathrm{n}=1)$ |
| ED | $11.8(\mathrm{n}=10)$ | $11.8(\mathrm{n}=8)$ | 11.8( $\mathrm{n}=2$ ) |
| OTHER | 14.1(n=12) | $13.2(\mathrm{n}=9)$ | 17.6(n=3) |
| Total | 100.0(n=85) | 100.0( $\mathrm{n}=68$ ) | 100.0( $\mathrm{n}=17$ ) |

* Natural Science (NS), Engineering (E), Social Science including Psychology (SS), Humanities and Fine Arts (H), Business and Commerce (B), Education (ED), and Other (Law, Interdisciplinary, Women's Studies).

TABLE XV

## FREQUENCY AND PERCENT OF FIELDS OF STUDY OF FEMALE ACADEMIC DEPARTMENT HEAD/CHAIR BY TYPE OF INSTITUTION

| Fields of Study | Total Sample | Research | Doctorate |
| :---: | :---: | :---: | :---: |
| NS | 23.5(n=20) | 17.0( $\mathrm{n}=19$ ) | $34.4(\mathrm{n}=11)$ |
| E | $5.9(\mathrm{n}=5)$ | $5.7(\mathrm{n}=3)$ | $6.3(\mathrm{n}=2)$ |
| SS | $32.9(\mathrm{n}=28)$ | 32.1( $\mathrm{n}=17$ ) | $34.4(\mathrm{n}=11)$ |
| H | 8.2( $\mathrm{n}=7$ ) | 13.2(n=7) | $0.0(\mathrm{n}=0)$ |
| B | $3.5(\mathrm{n}=3)$ | $3.8(n=2)$ | $3.1(\mathrm{n}=1)$ |
| ED | $11.8(\mathrm{n}=10)$ | 15.1(n=8) | $6.3(\mathrm{n}=2)$ |
| OTHER | 14.1(n=12) | 13.2(n=7) | 15.6(n=5) |
| Total | 100.0(n=85) | 100.0(n=53) | 100.0(n=32) |

A previous study (Loomis and Wild, 1978) of ninety eight women in administrative positions in six states and thirty seven selected colleges revealed that most women in administrative positions, including fifty-one chairpersons, were in traditionally female disciplines such as Home Economics and Nursing. However, the findings of this study are different. Over 62.4 percent $(n=53)$ of the female academic department head/chairs were in three fields of Natural Science, Engineering, and Social Sciences. Only 11.8 percent (n=10) were in Educational fields and 14.1 percent (n=12) were in Law and Multi-disciplinary fields. Included in the last category were six respondents from Women's Studies. Details of the fields of discipline are reported in Appendix $E$.

The correlation coefficient for the relationship and analysis of variance for the difference revealed no significant relationship or difference at $p<.05$ level for independent variable of the fields of study and dependent variables of style, style flexibility, and style effectiveness either by sector or by type.

Teaching Experience. The range of teaching experience of female academic department head/chair varied from 0 to 41 years. However, there were 55.1 percent ( $n=49$ ) who had twenty or more years of teaching experience. This included their early years of teaching in a public school system. Only one respondent had no teaching experience.

It is interesting to note that only 9.1 percent ( $n=8$ ) of the respondents had under ten years of teaching background. In other words, 90.9 percent ( $n=80$ ) had over ten years of experience in teaching.

The correlation coefficient revealed no significant relationship between experience as an independent variable and the dependent variables of style, style flexibility, and style effectiveness either by sector or by type of institution. In addition, analysis of variance indicated no difference between dependent variables based on the years of teaching experience for public, private and the type of institutions.

Number of Degree Programs. Departments in the study offered from 1-25 different programs; 8.2 percent ( $n=7$ ) of
the departments offered only one degree, and one department offered twenty five degrees. Sixty-four or 71.9 percent of the departments offered four or fewer programs while 28.1 ( $n=25$ ) offered five or more.

Four respondents did not indicate the number of degree programs. They questioned whether the question was asking them to provide number of degree programs at $B A, B S, M A, M S$ and other graduate degree programs. Some answers were in terms of majors and some were just doctorate programs. One Women's Studies respondent wrote that all degrees were offered through other departments on their behalf.

In using the correlation coefficient, no significant relationship was found between the number of degree programs and style, style flexibility, and style effectiveness in public, private, doctorate-granting and research institutions. Analysis of variance also did not produce any significant difference between public/private or doctorate/ research institutions based on the number of degree programs.

Faculty Size. Variation in faculty size was from 1-129. There was one department with one faculty member, and the respondent commented that she was the director of Women's Studies with one faculty. According to her, the degree programs were all offered through other departments on their behalf. The largest faculties--i.e., 129 and 88-belonged, respectively, to the Department of Management Information Systems and the Department of Math in private
doctorate-granting institutions.
One program had seventy four (all part time) faculty. One respondent wrote that it was difficult to project FTE since she was in an interdisciplinary program that borrowed faculty from different disciplines who were hired by their respective departments.

Tucker (1984), in support of situational leadership and the maturity/readiness/developmental stage of the department suggested three departmental sizes of small (4-9), medium (10-19), and large (20+) faculty members. According to this categorization, a majority of departments-- 44.9 percent ( $\mathrm{n}=40$ )-- were in medium size, 23.6 ( $\mathrm{n}=21$ ) were in small departments, and $31.5(n=28)$ were in large size departments.

Using analysis of variance for the independent variable of faculty size revealed a significant difference at p < . 05 level for the dependent variable of style effectiveness. Table XVI provides the result of the analysis of variance for style effectiveness by faculty size.

TABLE XVI
ANALYSIS OF VARIANCE (ANOVA) RESULTS FOR STYLE EFFECTIVENESS BY FACULTY SIZE

| Source | DF | Mean Square | F | P* |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
| Faculty Size | 2 | 95.405 | 4.37 | 0.0155 |
| Error | 86 | 21.81 |  |  |
| Total | 88 |  |  |  |

[^0]Since departments were grouped into three categories on the basis of the size of faculty (small, medium, and large), Duncan's Multiple Range Test was performed to determine which group(s) effectiveness was significantly different from the other(s). As Table XVII indicates, only the effectiveness of female academic chair/heads in medium faculty size departments was significantly different from that of the chair/heads in the large faculty size departments.

TABLE XVII
COMPARISON OF THE EFFECTIVENESS SCORES OF
ACADEMIC CHAIR/HEADS IN SMALL, MEDIUM,
AND LARGE DEPARTMENTS

| $\begin{aligned} & \text { Faculty } \\ & \text { Size } \end{aligned}$ | Mean | N | Duncan Grouping* |  |
| :---: | :---: | :---: | :---: | :---: |
| LARGE | 52.18 | 28 | A |  |
| SMALL | 50.19 | 21 | A | B |
| MEDIUM | 48.78 | 40 |  | B |

* Means with the same letter are not significantly different

Student Enrollment. The student enrollment varied from 18 to 7500 students. The department with the lowest enrollment was in the area of plant pathology and offered only graduate level instruction. The departments with the highest student enrollment were Psychology and History.

Seventy-four percent $(n=61)$ of the departments had enrollments under 1,000 students, and 26 percent $(n=27)$ were between 1000-7500 students. It is interesting to note that a majority, or 64.0 percent $(n=57)$, of departments had enrollments of under 500 students, and $36.0(n=32)$ had enrollments of over 500. Missing responses were seven.

Some of the respondents had reported only the number of students majoring in their field of study and some others, all students enrolling in their department. Because of lack of consistency, the statistical results did not appear to have any validity and, therefore, are not reported here.

## Research Question Four

Are there significant differences in the leadership style, style range/flexibility, and style adaptability/ effectiveness of the female academic department chair by sector of institution (public/private)?

As Table XVIII indicates, the style flexibility of the female academic department chair/heads varied from a score of 4 to 24. The range of flexibility for each sector was almost identical with a slightly lower minimum score of 4 for the private as opposed to the score of 6 for the public institutions. The mean flexibility score for the total sample was 15.06 , for public 15.35 , and for private 13.88. According to the scoring method provided by the Blanchard Training and Development, Inc., (see Appendix B), flexibility can range from 0 to 30 with the lower score
meaning the same one or two styles were used for nearly every situation. A higher score means all four styles were used more equally.

Style effectiveness for the whole sample and the female academic chair/heads in public/private institutions were also almost identical. The average score of 49 to 50 indicated that the two groups were similar in their selection of a leadership style. The scoring method provided by the Blanchard Training and Development, Inc., for style effectiveness provided a range of 20 to 80 , with a higher score meaning that more "good" and "excellent" leader styles were selected (see Appendix B).

TABLE XVIII
STYLE FLEXIBILITY AND STYLE EFFECTIVENESS SCORES OF FEMALE ACADEMIC DEPARTMENT CHAIR/HEAD BY SECTOR

| Institution | Range Scores | Mean Scores |
| :---: | :---: | :---: |
| Style Flexibility$(0-30)$ |  |  |
| Total Sample ( $\mathrm{n}=89$ ) | 4-24 | 15.06 |
| Public ( $\mathrm{n}=72$ ) | 6-24 | 15.35 |
| Private ( $\mathrm{n}=17$ ) | 4-24 | 13.88 |
| Style Effectiveness$(20-80)$ |  |  |
| Total Sample ( $\mathrm{n}=89$ ) | 41-63 | 50.10 |
| Public ( $\mathrm{n}=72$ ) | 41-63 | 50.36 |
| Private ( $\mathrm{n}=17$ ) | 41-60 | 49.41 |

Comparison of the mean scores of female academic department chair/heads on leadership flexibility and effectiveness in private and public institutions revealed no significant difference. As Table XIX indicates, the computation of $t$ presented a value of 1.06 at a .29 significance level for flexibility and the $t$ value of .72 at a . 47 significance level for the leadership effectiveness. These values pointed to the similarity of leadership flexibility and effectiveness of female department head/chairs in public and private institutions of higher education.

TABLE XIX

T-TEST PROCEDURE FOR LEADERSHIP FLEXIBILITY AND EFFECTIVENESS OF FEMALE ACADEMIC DEPARTMENT CHAIR/HEAD BY SECTOR

| Institution | Frequency | Mean | Standard Deviation | T | P* |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Flexibility: |  |  |  |  |  |
| Public | 72 | 15.35 | 4.92 |  |  |
| Private | 17 | 13.88 | 5.94 | 1.06 | 0.29 |
| Effectiveness: |  |  |  |  |  |
| Public | 72 | 50.36 | 4.86 |  |  |
| Private | 17 | 49.41 | 4.87 | 0.72 | 0.47 |

## Research Question Five

Are there significant differences in the leadership style, style range/flexibility, and style adaptability/ effectiveness of the female academic department chair by type of institution (research/doctorate)?

The calculation of style flexibility and style adaptability for the female academic chair/heads in doctorate-granting and research institutions produced similar results. As Table XX indicates, style flexibility for the subjects in research institutions ranged from 6 to 24 and for the doctorate institutions was 4 to 24. Style effectiveness scores ranged from 41 to 63 for the research institution and 41 to 62 for the doctorate-granting institutions.

TABLE XX
STYLE FLEXIBILITY AND STYLE EFFECTIVENESS SCORES OF FEMALE ACADEMIC DEPARTMENT CHAIR/HEAD BY TYPE

| Institutions Type | Range Scores | Mean Scores |
| :---: | :---: | :---: |

Style Flexibility (0-30)

Total ( $\mathrm{N}=89$ ) 4-24 15.06
Research ( $\mathrm{n}=56$ ) 6-24 14.64
Doctorate $(\mathrm{n}=33) \quad 4-24$ 15.79
Style Effectiveness (20-80)

Total $(\mathrm{n}=89) \quad 41-63 \quad 50.10$
Research ( $\mathrm{n}=56$ ) 41-63 49.51
Doctorate ( $\mathrm{n}=33$ ) 41-62 51.30

TABLE XXI
T-TEST PROCEDURE FOR LEADERSHIP FLEXIBILITY OF FEMALE ACADEMIC DEPARTMENT CHAIR/HEAD BY TYPE


Flexibility:
$\begin{array}{llll}\text { Research } 56 & 14.64 & 4.67\end{array}$

| Doctorate | 33 | 15.79 | 5.82 | -1.02 | 0.31 |
| :--- | :--- | :--- | :--- | :--- | :--- |

Effectiveness:
$\begin{array}{llllll}\text { Research } & 56 & 49.52 & 4.66 & & \\ \text { Doctorate } & 33 & 51.30 & 5.01 & -1.70 & 0.09\end{array}$

* Not significant at $\mathrm{p}<0.05$

Comparison of the mean scores of female department head/chairs in doctorate-granting and research institutions on style flexibility and effectiveness, presented in Table XXI, produced no significant difference. A $t$ value of -1.02 at .31 significance level for style flexibility and a $t$ value of -1.70 at . 09 significance level, indicated similarities between the style flexibility and effectiveness of female chair/heads in the two types of institutions.

## CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

## Review of the Study

In the previous chapter, five research questions were presented with analysis of responses of 89 subjects representing 23 research and doctorate-granting institutions of higher education, nationwide. The research was designed to 1) determine whether or not female academic department chair/heads in these institutions had a dominant leadership style; 2) whether there was a significant relationship between demographic characteristics and variables of leadership style, style flexibility, and style effectiveness; and, 3) whether there was a significant difference in the leadership styles of academic chair/heads in public/private and research/doctorate-granting institutions. A descriptive research design was used to obtain information concerning the current status of the female academic department head/chair in research and doctorate-granting institutions throughout the United States. Sample selection was based on the Carnegie Foundation Classification of American Institutions of Higher Education (1987). Twenty-three or ten percent of the institutions of eight categories of private and public

Research Type I and II, and private and public DoctorateGranting I and II were drawn randomly from 213 institutions. The chief academic affairs officer of each selected institution was identified and invited to participate in the study by providing a list of the female academic department head/chairs on the campuses.

One instrument, the Leader Behavior Analysis II-Self
(LBA II-Self) designed by Blanchard Training and Development, Inc., from Situational Leadership Model II, and a self-constructed questionnaire of personal and institutional variables were the tools to investigate these problems. Data were collected through mailed questionnaires to 143 female academic department chair/heads who were identified from the list that was obtained from the chief academic officer in 23 randomly selected institutions. Respondents were asked to complete and return the questionnaires in a stamped, self-addressed envelope at the earliest convenient time. A total of 101 (71\%) individuals returned their questionnaires. Of these, 89 (62\%) were complete and usable, and the other 12 were either partially completed or were returned blank.

The data were coded and analyzed using the SAS computer program through frequency distributions, percentages, correlation coefficient, one way analysis of variance, $t$ test, and Duncan's Multiple Range Test. Summary results of the findings are presented in the following section, as are discussion and recommendations.

## Research Question One

Do female academic department chair/heads as a group have a dominant leadership style?

A majority of the female academic department chairs/ heads or 85.4 percent ( $n=76$ ) had a dominant style of High Supportive, Low Directive (S3- participating). No respondent chose Low Supportive, High Directive (S1- telling) as her primary 1 or primary 2 or secondary 2. No respondent had a response of S 3 (participating) as her primary 2 style in either sector or type of institutions.

The total percentage for primary style of high supportive, low directive (S3- participating) for public institutions was 86.1 ( $\mathrm{n}=62$ ), for private 82.4 ( $\mathrm{n}=14$ ), research 83.9 ( $n=47$ ), and for doctorate-granting institutions was 87.9 ( $\mathrm{n}=14$ ). For the total sample, the percentage on $S 3$ (participating) as the primary 1 style was 85.4 ( $n=76$ ). Table XXII provides a summary of similar results for the flexibility and effectiveness range and mean scores both by sector and by the type of institutions.

TABLE XXII
SUMMARY OF STYLE FLEXIBILITY AND STYLE EFFECTIVENESS SCORES BY SECTOR

AND BY TYPE

| Institution | $\begin{aligned} & \text { Flexibility } \\ & \text { Range } \\ & (0-30) \end{aligned}$ | Mean Scores | Effectiveness Range (20-80) | Mean Scores |
| :---: | :---: | :---: | :---: | :---: |
| Total ( $\mathrm{n}=89$ ) | 4-24 | 15.06 | 41-63 | 50.10 |
| By Sector: |  |  |  |  |
| Public ( $\mathrm{n}=72$ ) | 6-24 | 15.34 | 41-63 | 50.36 |
| Private (n=17) | 4-22 | 13.88 | 41-60 | 49.41 |
| By Type: |  |  |  |  |
| Research ( $\mathrm{n}=56$ ) | 6-24 | 14.64 | 41-63 | 49.51 |
| Doctorate ( $\mathrm{n}=33$ ) | 4-24 | 15.79 | 41-62 | 51.30 |

Research Question Two

Are selected personal variables of age, ethnic background, marital status, number of children living at home, being the sole support of the household, mother's education/career related to the leadership behavior of female department head/chairs?

There was no significant difference between leadership style, style flexibility, and style effectiveness based on the demographic variables of age, marital status, number of children living at home, being the sole support of the household, and mother's education. This was true for the
private, public, research, and doctorate-granting institutions. Although there was a significance difference based on race for the doctorate-granting institutions, this may possibly has been due to the very small size of the nonCaucasian sample.

Mothers's work was found to be significantly related to the style flexibility. Computed correlation coefficient produced $r=.25, \mathrm{p}$ < .02. Analysis of variance also indicated that style flexibility of those whose mothers's did not work was significantly higher than those whose mother's did. A summary of results is provided in Tables XII and XXIV.

## Research Question Three

Are selected institutional variables of previous administrative experience, position title, length of time in present position, academic rank, field of study/ discipline, teaching experience, departmental program size, faculty and enrollment size related to the leadership behavior of female academic chair/heads?

There was no significant difference for the independent variables of previous administrative experience, length of time in present position, academic rank, fields of discipline, and teaching experience and the dependent variables of style, style flexibility, style effectiveness.

As Table XXIV shows, position title, however, was found to be significantly related to the style effectiveness. Computed correlation coefficient produced r=.28, p < . 03.

As Table XXIII shows, analysis of variance also indicated a significant difference in the style effectiveness based on position title and faculty size. Director/coordinators scored significantly higher in style effectiveness than academic department chair/heads.

TABLE XXIII
SUMMARY OF ANOVA RESULTS FOR STYLE EFFECTIVENESS BY INSTITUTIONAL CHARACTERISTICS OF POSITION TITLE AND FACULTY SIZE

| Source | DF | Mean Square | F | P* |
| :---: | :---: | :---: | :---: | :---: |
| Position Title | 2 | 82.415 | 3.73 | 0.0281 |
| Error | 86 | 22.12 |  |  |
| Total | 88 |  |  |  |
| Faculty Size | 2 | 95.405 | 4.37 | 0.0155 |
| Error | 86 | 21.81 |  |  |
| Total | 88 |  |  |  |

* Significant at $P<0.05$ level

Research Question Four

Are there significant differences in the leadership style, style range/flexibility, and style adaptability/ effectiveness of the female academic department chair by sector of institution (public/private)?

A majority $(85 \%, n=76)$ of the female academic department head/chairs scored very high on high supportive, low directive (S3- participating) in both the public ( $86 \%$, $\mathrm{n}=62$ ) and private ( $82.4 \%, \mathrm{n}=14$ ) sector. Flexibility range was 6-24 for public and 4-22 for private. Style effectiveness range for public was 41-63, and it was 41-46 for private sector.

A $t$ test revealed no differences between style flexibility mean scores of academic chair/heads at public and private institutions. The range of flexibility for public institutions was 6-24 ( $n=72$, mean=15.35), and for private institutions it was 4-22 (n=17, mean=13.88). Effectiveness scores for public institutions was 41-63 ( $n=72$, mean=50.36), and for private institutions was 41-60 ( $n=17$, mean $=49.41$ ).

Using the correlation coefficient, analysis revealed a significant relationship at $p<.05$ level between the independent variables of mother's work and the dependent variable of style flexibility in public institutions. There was also a significant relationship between the independent variable of position title and the dependent variable of effectiveness in private institutions. A summary of results is provided in Table XXIV.

TABLE XXIV
SIGNIFICANT RELATIONSHIP BETWEEN PERSONAL AND INSTITUTIONAL CHARACTERISTIC WITH FLEXIBILITY AND EFFECTIVENESS OF FEMALE ACADEMIC DEPARTMENT CHAIR/HEAD BY SECTOR


## Research Question Five

Are there significant differences in the leadership style, style range/flexibility, and style adaptability/ effectiveness of the female academic department chair by type of institution (research/doctorate-granting)?

A majority ( $85.4 \%, \mathrm{n}=76$ ) of female academic department head/chairs scored at high supportive and low directive (S3participating) primary style, at both types of research (83.9\%, $\mathrm{n}=47$ ) and doctorate (87.9\%, $\mathrm{n}=29)$. Like public/ private institutions, no respondent selected low supportive, high directive (S1- telling) as their primary 1, or primary 2 or secondary 2 leadership style. No respondent selected 53
(participating) as their primary 2 style either.
A $t$ test revealed no significance difference between the style flexibility and effectiveness at the $p<.05$ level for the research and doctorate-granting institutions. The range of flexibility for research institutions was 6-24 ( $n=56$, mean=14.64), and for doctorate institutions it was 4-24 ( $n=33$, mean=15.97). Effectiveness scores for research institutions were 41-63 ( $\mathrm{n}=56$, mean=49.52), and for doctorate institutions, 41-62 ( $n=33$, mean=51.30).

Using correlation coefficients, there was a significant relationship ( $r=.38$ ) at $p<0.01$ level between the independent variables of position title and the dependent variable of style effectiveness in research institutions. Computation of correlation coefficient also revealed a significant negative relationship (r=-.37) at $p<.05$ level between race and the dependent variable of effectiveness in doctorate-granting institutions. Due to the very small number of non-Caucasians, this result may not be valid. Table XXV provides a summary of these two variables and style flexibility, effectiveness by type.

SUMMARY OF SIGNIFICANT PERSONAL AND INSTITUTIONAL CHARACTERISTIC BY TYPE OF INSTITUTION

| Variables | N | Flexibility |  | Effectiveness |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $r$ | P | $r$ | P |
| Position Title |  |  |  |  |  |
| Research | 56 | . 18 | . 18 | . 38 | .01** |
| Doctorate | 33 | -. 01 | . 97 | . 12 | . 48 |
| Race |  |  |  |  |  |
| Research | 56 | . 07 | . 61 | . 08 | . 58 |
| Doctorate | 33 | . 01 | . 97 | -. 37 | .05* |

## Discussion

A major objective of leadership studies of higher learning institutions, including the present research, is to assess and facilitate a greater understanding of the influence of leadership style on the success of educational institutions and the individuals utilizing programs at those institutions.

The majority ( $85.4 \%, \mathrm{n}=76$ ) of the respondents in the study demonstrated a preference for high supportive and low directive leadership style (S3- participating). These are some of the characteristics of participating leaders:

- shares ideas and facilitates in making decisions
- provides support and encouragement
- involves people in give and take discussions about
work and activities
- facilitates people interaction with cthers
- seeks out and listens to people's opinions and concerns
- provides feedback on people's accomplishments

This seems to be in line with the recent awareness of the role of women as a vital force in society and with their new and varied talents and fresh perspectives such as caring, intuition, nurturing qualities and concern with the needs of others. As Love (Shakeshaft, 1989) stated in her speech "... women institute a whole new and feminine form of management that is rooted in solid human values, that nurtures everyone connected with it..."

The leadership ability of the chair/heads in reflecting the goal of the department through administrative channels is critical not only to the success of a department in a given institution but to the very institution itself. Also of importance is the fact that each institution has its own unique political and economic power structure. It is incumbent upon the chair/heads to be aware of and adjust to this structure. Success and sometimes survival require skillful playing of the political game. It is for this reason that programs should be developed and implemented to assist administrators in improving leadership effectiveness through the utilization of broad situational approach. Also, realizing the increasing demands being placed on administrators, it is becoming more and more important for
the administrators to be prepared to utilize the delegating style of leadership with those individuals, who have reached an appropriate level of readiness.

It is important for the female academic department head/chairs to evaluate their leadership behavior periodically in terms of exploring and developing other nonprimary styles to improve effectiveness.

The leadership effectiveness of the chair/heads can be used to enhance departmental productivity, educational service delivery, planning and resources availability, specially in larger departments due to a different readiness level.

Although a response rate of 71 percent indicated that female academic department chair/heads appear to be interested in improving their leadership effectiveness and in knowing more about it, the findings and implications of this study may not be generalizeable to all research and doctorate institution because of not having enough representation in all categories.

The majority ( $85.4 \%, \mathrm{n}=76$ ) of the respondents in the study demonstrated a preference for the supporting leadership style, which might be expected in an institution of higher learning. This seem to be in line with the educational environment and the moderate-high readiness level of the faculty and students in higher education institutions (Montgomery, 1988; Roseman, 1988; Wisessang, 1988; Nix, 1989).

## Reflections and Other Observations

Although 85.4 percent $(\mathrm{n}=76)$ of the respondents scored very high on high supportive, low directive (S3- participating), there was some variation among them on style flexibility and style effectiveness (for details see Tables V and VI).

At the time of this study, LBA II seemed to be more comprehensive than other available leadership measurements. Although the respondent rate was high (71 percent), comments by some of the respondents indicated dissatisfaction with the LBA II instrument. A total of 12 respondents for a variety of reasons chose not to complete the questionnaire. Some of the reasons:
-Irrelevant questions to the actual departmental processes and problems encountered as a chair, and business and corporate orientation of the questionnaire (four respondents)
-Heavy workload, time demand (three respondent)
-In the middle of the financial crisis (one respondent)
-Not administrator any longer (one respondent)
-No one by this name (one respondent)
-Another respondent wrote that she was coordinator of the women studies certificate program which does not offer a bachelor's degree and has no other faculty (her staff was a 75\% secretary).

The only respondent from follow up letter commented: "I
am returning your materials unanswered because the task described in the questionnaire were quite different from the kinds of situations I face."

Another contributing factor for non-respondent was possibly due to obtaining the list of chairpersons at the end of academic year (spring semester) and conducting the actual study in the fall semester.

Although the list of female academic department chair/heads was obtained through the institutions vice President for Academic Affair's office, some contained the list of all females in the institution and yet others were not clear about chair/heads position. After follow up letters and majority of no response, guessing games of the list produced seven respondents whose ranks were not comparable to the traditional title chair/heads and they were titled director/ coordinator.

Some of the items in the self constructed questionnaire of personal and institutional characteristic (Appendix $C$ ) also brought some criticism and comments.

Item B: Ethnic or Racial Background- The category of "Caucasian," wrote one respondent, "should itself be more refined, there are multiple ethnicities under Caucasian (ie, jewish-which is not the same). Other regional differences may matter too."

Item C: Marital Status- one respondent wrote: "This presumes only heterosexual state-sanctioned marriages. What about long-term relationships (same sex or heterosexual?

Create another category-are you living as a couple (intimate relationship?)" According to Shakeshaft (Shakeshaft, 1989) $15 \%$ of general population are lesbians, but no study has documented the number of women administrators that fall into this category.

Items F and $\mathrm{G}:$ Regarding mothers education and career, more attention should have been given to mothers role at different stages of children's lives. At least two dozen comments included the pursuit of mothers' work and education in later stages of children's lives such as when they were in their teens or college age.

Item I: Regarding position title, the focus should have been on the task and not title. This was necessary due to variety of job requirements.

Item P: Regarding student enrollment, the question should have specified FTE in terms of major and non-majors by semester.

## Recommendations

The findings and implications of this study may not be generalizeable to all research and doctorate-granting institutions. The large number of non-respondents might imply lack of representative sample, and therefore the results might be treated with caution. However, based on the results of this study, the following recommendations appear to be in order.

- It is recommended that a qualitative measure be taken in conducting this type of research. A qualitative research would provide more depth rather than skimming the surface. Emphasis and focus on issues such as task of chairperson rather than position title and on the role of mother rather than career or degree would provide a better understanding.
- It is recommended that the sample be extended to a greater proportion of the population, so that the results are more generalizeable.
- It is recommended that further research investigate the leadership style of chair/heads across all other categories presented in Carnegie Classification of American Higher Education, including comprehensive institutions and junior colleges. Junior colleges in particular would be a good choice because of diversity of main stream of "typical" women.
- It is recommended that further research be conducted to revise, modify and redefine LBA II and better yet design an instrument to fit and be more sensitive to gender and academic environment needs. A number of respondents commented on the corporate orientation of the questionnaire and that the items were not very relevant to the day to day problems of academia.
- It is recommended that this study be replicated using LBA II-Other instrument. The results of study of the perceptions of supervisor and other colleagues and co-workers in the department could be correlated with the self perception of chairs to assess a more accurate leadership behavior.
- It is recommended that this study be replicated in ten years to compare results.

Finally, it is important that leadership studies of this nature be continued in order to facilitate a greater understanding of the influence of leadership style on the success of changing educational institutions and the individuals--especially females with their fresh perspectives and caring relationships--utilizing programs at those institutions.

## SELECTED BIBLIOGRAPHY

Antonucci,Tony. "The need for Female Role in Education." Women and Educational Leadership edited by Biklen, Sari Knopp and Brannigan, Marilyn B. Lexington: Lexington Books. 1980: 185-195

Bennett, John B. "The Dean and the Department Chair: Toward Greater Collaboration." Educational Record, 71, Winter 1990: 24-26

Bennett, John B. "Department Chairs: Leadership in the Trenches". Leaders for a new era. Strategies for Higher Education. Edited by Madeleine F. Green. New York: Macmillan publishing company, 1988: 57-73

Bennett, John B. and Figuli, David J. editors. Enhancing the Departmental Leadership: The Role of the Chairperson. American Council on Education, Washington, D.C. 1990

Bennett, John B., "Faculty Evaluation: The Roles of the Department Chair." Enhancing Departmental Leadership: The Roles of the Chairperson. Edited by John B. Bennett and David J. Figuli. Washington: American Council on Education, 1990: 72-82

Bennett, John B. Managing the Academic Department: Cases and Notes. New York, NY: MacMillan Publishing Company, 1983

Bernard, Jessie. "Re-Viewing the Impact of Women's Studies on Sociology." The Impact of Feminist Research in the Academy. Edited by Christie Farnham for Women's Studies Program of Indiana University. Bloomington \& Indianapolis: Indiana University Press. 1987

Berry, Margaret C. editor. Women in Higher Education Administration: A Book of Readings. Washington, D.C.: National Association for Women Deans, Administrators and Counselors. 1979

Biglan, Anthony. "Relationships Between Subject Matter Characteristics and the Structure and Output of University Departments. "Journal of Applied Psychology 57 (1973): 204213

Biklen, Sari Knopp, and Brannigan, Marilyn B. editors. Women and Educational Leadership. Massachusetts, Toronto: D.C. Health \& company. Lexington Books, 1980

Biklen, Sari Knopp. "Introduction: Barriers to EqualityWomen, Educational Leadership and Social Change." Women and Educational Leadership. Edited by Biklen, Sari Knopp and Brannigan, Marilyn B. Lexington: Lexington Books. 1980: 1-23

Blake, Robert R. \& and Mouton, J. S., and Williams, Martha S. The Academic Administrator Grid. San Francisco: Jossey Bass Publishers, 1981
$\downarrow$ Bogdan, Janet. "The Transition from Parenting to Working and Parenting." Women and Educational Leadership. Edited by Biklen, Sari Knopp and Brannigan, Marilyn B. Lexington: Lexington Books. 1980: 209-221

Bolton, Charles K. and Boyer, Ronald K. "Organizational Development for Academic Departments." Journal of Higher Education, XLIV (1973): 352-368

Carnegie Foundation for the Advancement of Teaching.
A Classification of Institutions of Higher Education. A Carnegie Foundation Technical Report. Princeton, New Jersey: Carnegie Foundation, 1987
-Clark, K. E., and M. B. Clark, editors. Measures of Leadership. West Orange, NJ: Leadership Library of America, 1990

Cresswell, John W., et al. The Academic Chairperson's Handbook. Lincoln \& London: University of Nebraska Press, 1990.

Desjardins, Carolyn, "Gender Issues and Community College Leadership." American Association of Women in Community and Junior Colleges (AAWCJC) Journal, (1989): 5-9
-Eble, Kenneth E. "Chairpersons and Faculty Development" Enhancing Departmental Leadership: The Roles of the Chairpersons. Edited by John B. Bennett. Washington: American Council on Education, 1990, 99-106

Farnham, Christie. editor. The Impact of Feminist Research in the Academy. Bloomington \& Indianapolis: Indiana University Press, 1987

Freedman, Michael. "Prophets, Chiefs, Commissioners, and Queens: The Moral and Institutional Context of Leadership." Women and Educational Leadership. Edited by Sari Knopp Biklen and Marilyn B. Brannigan. Lexington: Lexington Books. 1980: 27-34

Gardiner, John J. " Building Bridges Between Disciplines: Collaboration in an Information-Processing University." European Journal of Engineering Education. v.12, n.2, 1988: 121-127
$\checkmark$ Ga
Gardiner, John J. "Building Leadership Teams." Leaders for a New Era: Strategies for Higher Education. Edited by Madeleine F. Green. New York: Macmillan Publishing Company, 1987: 137-154

Gardner, J.W. On Leadership. New York: The Free Press-A Division of MacMillan, inc. 1990

Gilligan, Carol. In a Different Voice. Cambridge, Massachusetts: Harvard University Press, 1982

Green, Madeleine F., editor. Leaders for a New Era: Strategies for Higher Education. New York: American Council on Education/Macmillan Publishing Company, 1988

Green, Madeleine F. "Toward a New Leadership Model." Leaders for a New Era: Strategies for Higher Education edited by Madeleine F. Green. New York: Macmillan Publishing Company, 1987: 30-52
Hersey, Paul and Blanchard, Kenneth. Management of
Organizational Behavior: Utilizing Human Resources, 3rd \& 5th ed. Englewood Cliffs, NJ: Prentice-Hall Inc., 1977 \& 1988
-Hersey, Paul and Blanchard, Kenneth. "So You Want to Know Your Leadership Style?" Training and Development Journal, February 1974, and v35 n6 p34-54 June 1981

Hersey, Paul. The Situational Leader. Center for Leadership Studies. Escondido, California. 1982, 1984, 1988.

Hierarchy, Power, and Women in Educational Policy Making: A Position Paper. Washington, D.C.: Leadership Training Institute, 1975

Hoy, Wayne K. and Cecil G. Miskel.Educational
Administration: Theory, Research, and Practice. New York: Random House. 1978

Isaac, S. and Michael W.B. Handbook in research and evaluation (2nd ed.). San Diego, California: Edits Publishers. 1981

Jahanshahi, Farshid. Leadership Styles: A Review of Literature (unpublished Ed.S. thesis, Oklahoma State University). 1985

Kamm, Robert B. They're No. One! Oklahoma City: Western Heritage Books Inc., 1980

Keller, Harold R. "Working \& Parenting: The Male \& Father Role." Women and Educational Leadership. Edited By Sari Knopp Biklen \& Marilyn B. Brannigan. Lexington, Massachusetts, Toronto: Lexington Books, 1980: 197-207

Keyser, Daniel, Ph.D. Test Critiques, Volume VIII, 1991
Lomperis Ana Maria T. "Are Women Changing the Nature of the Academic Profession?" Journal of Higher Education, (November/December 1990): 643-677

Leslie, David W. "The Status of the Department Chairmanship in University Organization." AAUP Bulletin LIX (December 1973): 419-426

Loomis, Linda Jacobsen \& Wild, Peggy Harrell "Increasing the Role of Women in Community College Administration." 1978. ED181943

Montgomery, Y.K.W. Perceived Leadership Styles of Supervisors and the Relationship to Burnout in Female Middle-Administrators in Higher Education (unpublished Doctoral dissertation, Oklahoma State University). 1988

Moore, Kathryn M. \& Wollitzer, Peter A. Women in Higher Education: A Contemporary Bibliography. Washington: National Association of Women Deans, Administrators and Counselors, 1979

Murray, Robert K. "On Departmental Development: A Theory." The Journal of General Education XVI (October 1964): 227236

Neumann, Yoran. "The Perception of Power in University Departments: A Comparison Between Chairpersons and Faculty Members." Research in Higher Education, XI, 4 (1979): 283293

Nevil, sanford. The American College. New York: John Wiley \& Sons, Inc., 1962

Nix, K.S. Cultivating Leadership: Administrative Development Strategies for Academic Deans in Colleges and Universities (unpublished Doctoral dissertation, Oklahoma State University). 1989

Peterson's Register of Higher Education 1991 (4th ed.). Peterson's Guides, Princeton, New Jersey. 1990

Roach, James H. L. "The Academic Department Chairperson: Functions and Responsibilities." Educational Record LVII (Winter 1976): 13-23
-Roseman, M.G. Assessment of the Leadership Behavior of Home Economics Chief Administrators with Special Attention to Job-Related Stress. (unpublished Doctoral dissertation, Oklahoma State University). 1988

Shakeshaft, Charol. Women in Educational Administration. Updated Edition. Newbury Park, California: Sage Publications, Inc. 1989

VShavlik, Donna. and Touchton, Judith G. "Women as Leaders." Leaders for a new era: Strategies for Higher Education. edited by Madeleine F. Green. New York: Macmillan Publishing Company, 1988: 98-117

Silver, Donna. Women Administrators in Higher Education: A Selected Bibliography. Madison, Wi.: Instructional Materials Center, School of Education, University of WisconsinMadison, 1978

Simon, H. A. "Applying Information Technology to Organizational Design." Public Administration Review, 33 (May/June 1973): 268-278

Sowell, Evelyn J. \& Casey, Rita J. Analyzing Educational Research. Belmont, California: Wadsworth Publishing Company, 1982.

Stogdill, Ralph M. Handbook of Leadership: A Survey of Theory and Research. New York: The Free Press, 1974

Stokes, Jean M. Organizational Barriers and Their Impact on Women in Higher Education. Washington, D.C.: National Association for Women Deans, Administrators, and Counselors, (NOWDAC), 1984.
$\checkmark$ Tucker, Allan. Chairing the Academic Department: Leadership Among Peers. Washington: American Council on Education, 2nd edition, 1984

Pucker, Allan. "Nature of Being the Department Chair." Paper presented at the Oklahoma Network of Continuing Higher Education, on Leadership Development, Fall 1986. Published in a collection of papers on Leadership Development Program, Fall 1986: 56-65

Torregrosa, C.H. (Ed.) (1989). Higher Education Directory (7th ed.). Falls Church, Virginia: Higher Education Publications
-Waerdt, Lois V. "Women in Academic Departments: Uneasy Roles, Complex relationships." Enhancing Departmental Leadership: The Roles of the Chairperson. Edited by John B. Bennett. Washington: American Council on Education, 1990: 61-71
Walker, Alice A and Kuk, Linda. "Aspirations, Choices, Realities: College Women Ten Years Later." Women in Higher Education: Changes and Challenges. edited by Lynne B. Welch. New York: Praeger, 1990: 20-27

Welch, Lynne B. editor. Women in Higher Education: Changes and Challenges. New York: Praeger, 1990

Whitson, Linda J. and Hubert, Frank W. R. "Interest Groups and the Department Chairperson: The Exertion of Influence in the Large Public University." Journal of Higher Education, LIII (1982): 163-176

Wisessang, R. Leadership Styles, Style Flexibility, and Style Effectiveness of Public Secondary School Principals in Thailand (Unpublished Doctoral dissertation, University of Alabama). 1988

Women in Educational Leadership: An Open Letter to State Legislators: A Position Paper. Washington, D.C.: National Conference on Women in Education, 1976

Zigarmi, D., Edeburn, C., Blanchard, K. (1991). Research on LBAII, A Validity and Reliability Study. Blanchard Training and Development, Inc. 1991

APPENDIXES

## APPENDIX A

QUESTIONNAIRE LBA SELF-II

## LEADER BEHAVIOR ANALYSIS



# Leader Behavior ANALYSIS II $^{\text {m }}$ 

Kenneth H. Blanchard, Ronald K. Hambleton, Drea Zigarmi and Douglas Forsyth

## Self-A <br> Perceptions Of Leadership Style

## Directions:

The purpose of the LBA II Self-A is to provide you with information about your perceptions of your own leadership style. The instrument consists of twenty typical job situations that invoive a leader and one or more staff members. Following each situation are four possible actions that a leader may take. Assume that you are the leader involved in each of the twenty situations. In each of the situations, you must choose one of the four leader decisions. Circle the letter of the decision that you think would most closely describe your behavior in the situation presented. Circle only one choice.

## GJ

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(800) 728-6000 (619) 489-5005

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Kem \# 115 II

## LBAI

1You have anded a new empiogee to write a report to buy new equipment for the diviaion. She needs to learn more about this equipment to make a sound decimion aboot options and cocks. She feels thin anign ment will stretch her atready full schedule. You wouldo.s

A Tell her you want the report. Explain what you want in the report. Outline the steps she should take to become knowledgeable about the new equipment. Set weekly meetings with her to track progress.

B Ask her to produce the repor. Discuss its importance. Ask her for a deadine for completion. Give her resources she thinks she needs. Periodically check with her to track progress.

C Tell her you want the report and discuss its imporance. Explain what you want in the report. Outine steps she should take to learn more about the equipment. Listen to her concerns and use her ideas when possible. Plan weekly meetings to track her progress.

D Ask her to produce the report. Discuss its imporance. Explore the barriers she feels must be removed and the strategies for removing them. Ask her to set a deadline for completion and periodically check with her to track progress.

9 Your tank force has been working hard to complete 4its divirion-wide report. A new member has joined the group. He most present cost figures at the end of neat week, but he knows nothing about the report requirements and format. He is excited about lemaning more about his role in the group. You would.

A Tell him exactly what is needed. Specify the format and requirements. Introduce him to other taskforce members. Check with him frequently during the week to monitor progress and to specify any corrections.

B Ask him if there is anything you can do to help. Introduce him to other rask-force members. Explore with him what he thinks he needs to get "up to speed" with the report. Check with him frequently during the week to see how he is doing.
C Specify the report format and information needed, and solicit his ideas. Introduce him to each task-force member. Check with him frequently during the week to see how the report is progressing and to help with modifications.

D Weicome him and introduce him to members of the task force who could help him. Check with him during the week to see how he is doing.

3 You have recentiy noticed a performance problem 3 with one of your people. He seems to show a "don't care" attitude. Only your coorent prodding has brought about tom completion. You suppect be may not have enough expertive to complete the high-priority tonk you have given him. You would..

A Specify the steps he needs to take and the outcomes you want. Clarify timelines and paperwork requirements. Frequently check to see if the task is progressing as it should.

B Specify the steps he needs to take and the outcomes you want. Ask for his ideas and incorporate them as appropriate. Ask him to share his feelings about this task assignment. Frequently check to see the rask is progressing as it should.

C Involve him in problem solving for this task. Offer your help and encourage him to use his ideas to complete the project. Ask him to share his feelings about the assignment. Frequently check to see that the task is progressing as it should.

D Let him know how important this resk is. Ask him to outine his plan for completion and to send you a copy. Frequently check to see if the rask is progressing as it should.

$-1$
Your work group's composition has changed becave of company restructuring. Performance levels have dropped. Deadlines are being mineed and your boas is concerned. Group members want to improve their performance bue need more knowledge and akills. You would.

A Ask them to develop their own phn for improving performance. Be available to help them, if asked. Ask them what training they think they need to improve performance, and give them the resources they need. Continue to track performance.

B Discuss your plan to solve this problem. Ask for their input and include their ideas in your plan, if possible. Explain the rationale for your plan. Track performance to see how it is carried out.

C Outline the specific steps you want them to follow to solve this problem. Be specific about the time needed and the skills you want them to learn. Coninue to track performance.

D Help them determine a plan, and encourage them to be creative. Support their plan as you continue to track performance.

5 Because of budget cuts, it is necessary to consolidepartment member to take charge of the consolidation. This person has worked in all areas of your department. In the past, she has usually been eager to help. While you feel she is able to perform the assignment, she seems indifferent to the task. You would...

A Reassure her. Outline the steps she should take to handle this project. Ask for her ideas and incorporate them when possible, but make sure she follows your general approach. Frequently check to see how things are going.

B Reassure her. Ask her to handle the project as she sees fit. Let her know that you are available for help. Be patient, but frequently check to see what is being done.

C Reassure her. Ask her to determine the best way to approach the project. Help her develop options, and encourage her to use her own ideas. Frequently check to see how she is doing.

D Reassure her. Outline an overall plan and specify the steps you want her to follow. Frequently check to see how the steps are being implemented.

6
For the second time in a month, you are having a problem with one of your employees. His weekly progress reports have been incomplete and late. In the past year, he has submitted accurately completed reports on time. This is the first time you have spoken to him about this problem. You would...

A Tell him to improve the completeness and timeliness of his paperwork. Go over the areas that are incomplete. Make sure he knows what is expected and how to fill out each report section. Continue to track his performance.

B Ask him to turn in his paperwork on time and accurately, without pushing him. Continue to track his performance.

C Discuss time and completion standards with him. Listen to his concerns, but make sure he knows what is expected. Go over each report section, and answer any questions he may have. Use his ideas, if possible. Continue to track his performance.

D Ask him why the paperwork is incomplete. Listen to his concerns, and do what you can to help him understand the importance of timeliness and completeness. Continue to track his performance.

7 You have asked one of your senior employees to take on a new project. In the past, his performance has been outstanding. The project you have given him is important to the future of your work group. He is excited about the new assignment but doesn't know where to begin because he lacks project information. Your relationship with him is good. You would...

A Explain why you think he has the skills to do the job. Ask him what probiems he anticipates and help him explore aiternative solutions. Frequently stay in touch to support him.

B Specify how he should handle the project. Define the activities necessary to complete the job. Regularly check to see how things are going.

C Ask him for a plan for completing the project in two weeks and to send you a copy for your approval. Give him enough time to get started, without pushing him. Frequently offer your support.

D Outline how the project should be handled, and solicit his ideas and suggestions. Incorporate his ideas when possible, but make sure your general outline is followed. Regularly check to see how things are going.

8 One of your staff members is feeling insecure about O a job you have assigned to him. He is highly competent and you know that he has the skills to successfully complete the task. The deadline for completion is near. You would...

A Let him know of your concerns about the impending deadline. Help him explore alternative action steps, and encourage him to use his own ideas. Frequently check with him to lend your support.

B Discuss with him your concerns about the impending deadline. Outline an action plan for him to follow, and get his reactions to the plan. Modify the plan if possible but make sure he follows your general outline. Frequently check with him to see how things are going.

C Specify the reasons for on-time completion of the assignment. Outline the steps you would like him to start following. Ask that the steps be followed. Frequently check to see how he is progressing.

D Ask him if there are any problems, but let him resolve the issue himself. Remind him of the impending deadline, without pushing him. Ask for an update in three days.

Your staff has asked you to consider a change in their work schedule. Their changes make good sense to you. Your staff is well aware of the need for change. Members are very competent and work well together. You would...

A Help them explore alternative scheduling possibilities. Be available to facilitate their group discussion. Support the plan they develop. Check to see how they implement their plan.

B Design the work schedule yourself. Explain the rationale behind your design. Listen to their reactions, ask for their ideas and use their recommendations when possible. Check to see how they carry out your schedule.

C Allow the staff to set a work schedule on their own. Let them implement their plan after you approve it. Check with them at a later date to assess their progress.

D Design the work schedule yourself. Explain how the schedule will work, and answer any questions they may have. Check to see that your schedule is followed.

10Due to an organizational change, you have been assigned six new people whose performance has been declining over the past three months. They do not seem to have the task knowledge and skills to do their new jobs, and their attitudes have worsened because of the change. In a group meeting, you would...

A Make them aware of their three-month performance trend. Ask them to decide what to do about it and set a deadline for implementing their solution. Monitor their progress.

B Make them aware of their three-month performance trend. Specify the action steps you want them to follow. Give constructive feedback on how to improve performance. Continue to monitor performance.

C Make them aware of their three-month performance trend. Outline the steps you want them to follow, explain why and seek their feedback. Use their ideas when possible, but make sure they follow your general approach. Continue to monitor performance.
D Make them aware of their three-month performance trend. Ask them why their performance is declining. Listen to their concerns and ideas. Help them create their own plan for improving performance. Track their performance.

11A member of your department has had a fine performance record over the last 22 months. He is excited by the challenges of the upcoming year.
Budgets and unit goals have not changed much from last year. In a meeting with him to discuss goals and an action plan for next year, you would...

A Ask him to submit an outline of his goals and an action plan for next year for your approval. Tell him you will call him if you have any questions.

B Prepare a list of goals and an action plan that you think he can accomplish next year. Send it to him and meet with him to see if he has any questions.

C Prepare a list of goals and an action plan that you think he can achieve next year. Meet with him to discuss his reactions and suggestions. Modify the plan as you listen to his ideas, but make sure you make the final decisions.

D Ask him to send you an outline of his goals and an action plan for next year. Review the goals and plan with him. Listen to his ideas and help him explore alternatives. Let him make the final decisions on his goals and plan.

12 Your unit has had an excellent performance 12 record over the past two years. However, they have recently experienced three major setbacks due to factors beyond their control. Their performance and morale have drastically dropped and your boss is concerned. In a group meeting, you would...

A Discuss the recent setbacks. Give them the specific steps you want them to follow to improve their performance. Continue to track performance.

B Ask them how they feel about the recent setbacks. Listen to their concerns, and encourage and help them explore their ideas for improving performance. Continue to track performance.
C. Discuss the recent setbacks. Clarify the steps you want them to follow to improve performance. Listen to their ideas and incorporate them, if possible. Emphasize results. Encourage them to keep trying. Continue to track performance.

D Discuss the recent setbacks, without pressuring them. Ask them to set a deadline to improve performance and to support each other along the way. Continue to track performance.

12 You were recently assigned a new employee who 12 will perform an important job in your unit. Even she has the confidence to do the job. You would...

A Allow her time to determine what the job requires and how to do it. Let her know why the job is important. Ask her to contact you if she needs help. Track her progress.

B Specify the results you want and when you want them. Clearly define the steps she should take to achieve results. Show her how to do the job. Track her progress.

C Discuss the results you want and when you want them. Clearly define the steps she can take to achieve results. Explain why these steps are necessary and get her ideas. Use her ideas if possible, but make sure your general plan is followed. Track her performance.

D Ask her how she plans to tackle this job. Help her explore the problems she anticipates by generating possible alternative solutions. Encourage her to carry out her plan. Be available to listen to her concerns. Track her performance.

14 Your boss has asked you to increase your unit's output by seven percent. You know this can be done, but it will require your active involvement. To free your time, you must reassign the task of developing a new cost-control system to one of your employees. The person you want has had considerable experience with cost-control systems, but she is slightly unsure of doing this task on her own. You would...

A Assign her the task and listen to her concerns. Explain why you think she has the skills to handle this assignment. Help her explore alternative approaches if she thinks it would be helpful. Encourage and support her by providing needed resources. Track her progress.
B Assign her the task and listen to her concerns. Discuss the steps she should follow to complete the task. Ask for her ideas and suggestions. After incorporating her ideas, if possible, make sure she follows your general approach. Track her progress.
C Assign her the task. Listen to her concerns, but let her resolve the issue. Give her time to adjust, and avoid asking for results right away. Track her progress.

D Assign her the task. Listen to her concerns, and minimize her feelings of insecurity by telling her specifically how to handle this task. Outline the steps to be taken. Closely monitor her progress.

15Your boss has asked you to assign someone to serve on a company-wide task force. This task force will make recommendations for restructuring the company's compensation plan. You have chosen a highly productive employee, who knows how her coworkers feel about the existing compensation plan. She has successfully led another unit task force. She wants the assignment. You would...

A Give her the assignment, but tell her how she should represent her co-workers' point of view. Specify that she give you a progress report within two days of each task-force meeting.
B Ask her to accept the assignment. Help her develop the point of view she will take on the task force. Periodically check with her.

C Give her the assignment. Discuss what she should do to ensure her co-workers' perspective is considered by the task force. Ask for her ideas and make sure she follows your general approach. Ask her to report to you after every task-force meeting.

D Give her the assignment. Ask her to keep you informed as things progress. Periodically check with her.

16
Due to illness in your family, you have been forced to miss two meetings of a committee under your direction. Upon attending the next meeting, you find that the committee is operating well and making progress toward completing its goals. All group members come prepared, participate and seem to be enthusiastic about their progress. You are unsure of what your role should be. You would...

A Thank the committee members for their work so far. Let the group continue to work as it has during the last two meetings.
B Thank the committee members for their work so far. Set the agenda for the next meeting. Begin to direct the group's activities.

C Thank the committee members for their work so far. Do what you can to make the members feel important and involved. Try to solicit alternative ideas and suggestions.
D Thank the committee members for their work so far. Set the agenda for the next meeting, but make sure to solicit their ideas and suggestions.

17
Your staff is very competent and works well on their own. Their enthusiasm is high because of a recent success. Their performance as a group is outstanding. Now, you must set unit goals for next year. In a group meeting, you would...

A Praise them for last year's results. Involve the group in problem solving and goal setting for next year. Encourage them to be creative and help them explore alternatives. Track the implementation of their plan.

B Praise them for last year's results. Challenge them by setting the goals for next year. Outline the action steps necessary to accomplish these goals. Track the implementation of your plan.

C Praise them for last year's results. Ask them to set the goals for next year, and define the action plan needed to accomplish these goals. Be available to contribute when asked. Track the implementation of their plan.

D Praise them for last year's results. Set the goals for next year and outline the action steps necessary to accomplish these goals. Solicit their ideas and suggestions and incorporate them if possible. Track the implementation of your plan.

18 You and your boss know that your department 18 needs a new set of work procedures to improve long-term performance. Department members are eager to make some changes but, because of their specialized functions, they lack the knowledge and skills for understanding the "big picture." You would...

A Outline the new procedures. Organize and direct the implementation. Involve the group in a discussion of alternatives. Use their suggestions when possible, but make them follow your general approach. Track their use of the new procedures.

B Outline and demonstrate the new procedures. Closely direct the group in their initial use of the procedures. Track their use.

C Involve the group in a discussion of what the new procedures should be. Encourage their initiative and creativity in developing the new procedures. Help them explore possible alternatives. Support their use of the procedures. Closely track results.

D Ask the group to formulate and implement a set of new procedures. Answer any informational concerns, but give them the responsibility for the task. Closely track the use of the new procedures.

19 You were recently appointed head of your division. Since taking over, you have noticed a drop in performance. There have been changes in technology, and your staff has not mastered the new skills and techniques. Worst of all, they do not seem to be motivated to learn these skills. In a group meeting, you would...

A Discuss the staff's drop in performance. Listen to their concerns. Ask for their solutions for improving performance. Express your faith in their strategies. Emphasize their past efforts, but track performance as they carry out their strategies.

B Outline the necessary corrective actions you want them to take. Discuss this outline and incorporate their ideas, but see that they implement your corrective action plan. Track their performance.
C. Tell them about the drop in performance. Ask them to analyze the problem, and draft a set of action steps for your approval. Set a deadline for the plan. Track its implementation.

D Outline and direct the necessary corrective actions you want them to take. Define roles, responsibilities and standards. Frequently check to see if their performance is improving.
$20 \begin{aligned} & \text { You have noticed that one of your inexperienced } \\ & \text { employees is not properly completing certain tasks }\end{aligned}$ She has submitted inaccurate and incomplete reports. She is not enthusiastic about this task and often thinks paperwork is a waste of time. You would...

A Let her know that she is submitting inaccurate and incomplete reports. Discuss the steps she should take and clarify why these steps are important. Ask for her suggestions, but make sure she follows your general outline.

B Let her know that she is submitting inaccurate and incomplete reports. Ask her to set and meet her own paperwork deadlines. Give her more time to do the job properly. Monitor her performance.

C Let her know that she is submitting inaccurate and incomplete reports. Ask her what she plans to do about it. Help her develop a plan for solving her problems. Monitor her performance.
D Let her know that she is submitting inaccurate and incomplete reports. Specify the steps she should take with appropriate deadlines. Show her how to complete the reports. Monitor her performance.

## APPENDIX B

LBA II SCORING


# Leader Behavior Analysis II' 

Kenneth Blanchard, Ronald Hambleton, Douglas Forsyth, Drea Zigarmi

## Scoring-A

## Directions:

1. Record your answers from the Leader Behavior Analysis II form in the columns labeled S1, S2, S3 or S4 under Style Flexibility. For each situation (1-20), circle the letter that corresponds to your answer.
2. Once this step is completed, repeat the procedure in the columns labeled P, F, G or E under Style Effectiveness.
3. Add the number of circled letters in each of the eight columns on the scoring sheet, and enter the sums in the boxes labeled "Totals."

## GJ

Blanchard Training and Development, Inc. 125 State Place, Escondido, CA 92029 (800) 728-6000 (619) 489-5005

## LBAII

## Style Flexibility

1 The column headings under Style Flexibility correspond to the four leadership styles.

> S1 - High Directive, Low Supportive Behavior S2 - High Directive, High Supportive Behavior S3 - High Supportive, Low Directive Behavior S4 - Low Supportive, Low Directive Behavior

The column (S1, S2, S3 and S4) with the largest number of circled letters is your primary leadership style. Enter this number in the circle in the appropriate quadrant on the

Primary Style Matrix. For example, assume that the col with the largest number of circled items is column S3. I items have been circled, you would enter the number 8 $\mathbf{S 3}$ circle on the Primary Style Matrix. If you have a tie fi primary style (two or more columns with the same numt items circled), enter the numbers from each of these sty the appropriate quadrants.

2 Any column with four or more circled letters, other - your primary style(s), indicates a secondary leaderst style. Enter this number(s) in the appropriate triangle(: the Secondary Style Matrix.


## Leader Behavior Analysis II ${ }^{\text {m }}$

3Any column with less than four circled letters should be considered a style you may want to develop. Enter this number(s) in the appropriate box(es) on the Developing Style Matrix.

## Style Flexibility Score

To obtain your Style Flexibility Score, calculate the difference between 5 and each total. Subtract in either direction. Disregard the plus or minus sign. Enter these numbers in the shaded boxes at the bottom of the Style Flexibility columns. For example, if the total in column S2 is 2,

then the difference between 5 and 2 would be 3, and a 3 should be entered in the box. If the total is 6 , then the difference between 5 and 6 would be 1 , and a 1 should be entered in the box.

Q Add all four numbers in the shaded boxes and enter this sum in the Subtotal box. Subtract the Subtotal from 30 and enter this number in the Style Flexibility Score box. Scores can range from 0-30. Draw an arrow at the corresponding number along the Style Flexibility Graph. A lower score indicates low style flexibility, which means that you select the same one or two styles for every situation. A higher score indicates high style flexibility, which means that you use all of the four styles more or less equally.

## Style Effectiveness

To score high on style effectiveness, you must not only show a high level of flexibility in style selection, but you must also choose the leadership style that is most appropriate for each situation. The Style Effectiveness columns are headed by poor ( P ), fair ( F ), good (G) or excellent ( E ) ratings. The totals at the bottom of these columns indicate how often you choose a poor, fair, good or excellent answer.

## Style Effectiveness Score

To obtain your Style Effectiveness Score, multiply each total entered in the P, F, G and E columns by the number below each total. Enter the products in the shaded boxes at the bottom of the Style Effectiveness columns. Add all four numbers and enter the sum in the Style Effectiveness Score box. Scores range from 20-80. A lower score indicates low style effectiveness, which means that you chose a greater number of fair or poor leader style choices for the 20 situations. A higher score suggests high effectiveness, which means that you chose a greater number of good and excellent leader style choices.

Draw an arrow at the corresponding number along the Style Effectiveness Graph.
(Continued on back page)

## Style Diagnosis

To better understand how you might improve your effectiveness score, it is helpful to examine the appropriateness of your style selections. The numbers in subscript in the poor and fair Style Effectiveness columns are the leadership styles you chose when you circled responses $\mathrm{A}, \mathrm{B}, \mathrm{C}$ or D . Record the number of Style 1 choices you made in the poor and fair columns and place that number in the oval in the Sl quadrant on the Style Diagnosis Matrix. Repeat this procedure for Style 2, Style 3 and Style 4 choices within the poor and fair columns. A pattern of four or more answers in the fair and poor categories in one leadership style means that you may not be taking the development level of the person or group with whom you are working into consideration when choosing a leadership style. Go back to your LBAII Self form, and reanalyze the situations to see if you can better understand why you may be using those styles inappropriately.

## Style Diagnosis Matrix



Blanchard Training and Development, Inc. is a full-service consulting and training company in the areas of leadership, customer service, performance management, ethics and wellness. Cail or write for information on seminars and consulting services, or to receive a current catalog featuring BTD's training products.

Blanchard Training and Development, Inc. 125 State Place, Escondido, CA 92029 (800) 728-6000 (619) 489-5005

Item \# 118II

APPENDIX C

DEMOGRAPHIC DATA SHEET
the following questions are designed to obtain demographic data about you and your department. your responses will be kept in strict confidence and will only be reported in aggregate form. Please try to answer all the questions.
A. Your Age
[ ] (1) 35 and under
[ ] (2) 35-50
[ ] (3) over 50 years
B. Ethnic or Racial Background:
[ ] (1) Caucasian
[ ] (2) American Indian
[ ] (3) Black
[ ] (4) Hispanic
[ ] (5) Asian
[ ] (6) Other (specify)
C. Marital Status:
[ ] (1) now married
[ ] (2) never married
[ ] (3) once married
D. \# of children living at home
[ ]
E. Are you \# 1 sole support of your household
[ ] (1) yes
[ ] (2) no
F. Your Mother's Education:
[ ] (1) high school
[ ] (2) college education
[ ] (3) graduate education
G. Did your mother work outside home while you were growing up?
[ ] (1) yes
[ ] (2) no
H. Previous Administrative Experience
[ ] (1) yes
[ ] (2) no
I. Your Position Title

Is this comparable to what is normally regarded as academic department head/chair? [ ]yes [ ]no
J. Length of time in present position ------------------------------

L. Field of discipline
M. length of teaching experience
N. Departmental Program Size
-----------------------------------

P. Departmental student enrollment -----------------------------------
Q. Your Comments:

## APPENDIX D

CORRESPONDENCE

```
Dr. *first name* *last name* *position*
*title*
*university*
*address*
*city*, *state* *zip*
Dear Dr. *last name*,
```

As American Higher education continues to advance, the number of women has increased markedly, first as students, then as faculty, and more recently as departmental administrators. Of course some women have served as deans, vice presidents, and CEO for decades, but lately we are seeing many women administrators instead of the isolated marchers. Yet, in spite of the advent of women in departmental leading roles, few studies have attempted to focus on such women.

We are conducting a research project concerning the assessment of the leadership styles of female academic department head/chairs throughout the United States. We would appreciate your assistance in providing names and work addresses of the female academic department chair/heads in your institution.

The list as well as all the responses from the participants will be kept confidential. Thank you for your time and professional assistance.

Farshid Jahan-shahi Ed.S.

Doctoral Candidate
EAHED Department (405) 744-1795

Sincerely,
Thomas A. Karman Ph.D.

Dissertation Advisor EAHED Department (405) 744-7244

Blanchard Training \& Development, Inc. 125 State Place<br>Escodido, California 92029

Dear Dr. Zigarmi,
As we discussed earlier, I am in urgent need of permission to use LBA II-Self instrument. As I indicated earlier, I am a doctoral candidate at OSU and would like to use the instrument for my dissertation. I am doing a national study on perceived behavior/leadership styles of female department chair/heads in doctoral granting universities.

Presently, I am requesting permission to use LBA IISelf instrument. At this time, the number in the study appears to be around 200. The survey will be send out toward the later part of April 1991.

I understand that in order to make use of LBA IIinstrument, my dissertation will have credit and documentation of the whereabouts of the instrument. Also I understand that I will mail you a copy of my dissertation to you to be available and used for your validity and reliability studies of instrument.

Thank you for your time. I am appreciative and grateful for your assistance.

Sincerely,

Farshid Jahanshahi, Ed.S.
Doctoral candidate
(405) 744-1795

Thesis Advisor:
Thomas A. Karman
EAHED, Oklahoma State University
(405) 744-7244

# Oklahoma State University <br> DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION <br> STILLWATER, OKLAHOMA 74078 <br> 309 GUNDERSEN HALL <br> (405) 624-7244 

April 19, 1991

Dr. *first name* *last name* *position*
*title*
*university*
*address*
*city*, *state* *zip*
Dear Dr. *last name*,
About three weeks ago, a letter seeking the list and addresses of female academic department head/chairs in your institution was mailed to you. If you have already completed and returned it, please accept my sincere thanks. If not, please take a few minutes and complete it. Recognizing that this is a very busy time of the year, your participation in this study is very important to us.

If there is any additional information I can provide, you may write or call me. You cooperation is greatly appreciated.

Sincerely,

Farshid Jahanshahi, Ed.S.
Doctoral candidate
EAHED, Oklahoma State University (405) 744-1795

Dr. Thomas A. Karman
Thesis Advisor

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\text { May } 8,1991
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Dr. Drea Zigarmi
Vice President
Corporate Development/Research
Blanchard Training and Development, Inc.
125 State Place
Escondido, Ca 92025
Dear Dr. Zigarmi,
My committee has approved the use of the LBA II-Self for my study. I am ready to begin mailing the necessary surveys. I would like your permission to use the LBA IISelf. The three stipulations you specified in our lengthy phone conversation last March are agreeable to me:

1. The instrument will be given full credit and noted as to where it can be obtained.
2. The instrument may be marked "For Research Only." They will not be sold or used for commercial purposes.
3. You will be provided with a bound copy of my dissertation.
My research will require approximately 200 copies. Would you please grant my request to use the LBA II-Self for educational research and forward copies. If there is any additional information I can provide, you may write or call me at (405) 744-1795.

Sincerely,

Farshid Jahan-shahi, Ed.S.
Doctoral Candidate

Advisor: Dr. Thomas A. Karman
EAHED, OSU
(405) 744-7244

## Blanchard Training and Development, Inc.

August 1, 1991

Mr. Farshid Jahan-shahi<br>Doctoral Candidate<br>Oklahoma State University<br>309 Gundersen Hall<br>Stillwater, OK 74078

Dear Farshid:
Forgive me for not responding sooner to your letter of May 8; but, of course, you can have the LBA - Self. I can't remember whether or not we have sent them to you. Call me and we will be glad to put them in the mail.

Yours truly,
Dree Bjanmi

Dr. Drea Zigarmi<br>Research Coordinator

DZ:jk

The purpose of this letter is to request your participation in a research study regarding leadership styles of female academic department chair/heads. We believe there is a need for studies on leadership in the most stepping stone of higher education institutions-departments. Along with effective leadership in departmental level, it is important to recognize the increasing diversity of higher education population and underrepresentation of women and minorities. Hopefully, when there is a better understanding of these issues, we will be able to contribute to the maximization of the leadership effectiveness.

The survey contains two parts:
Leader Behavior Analysis II-Self (LBA II-Self) instrument which takes approximately 20-30 minutes; and second part seeks demographic information which may help in a better understanding of patterns or trends.

The survey is coded for mailing purpose and the codes will be removed immediately upon return of the questionnaire. All information will be treated confidentially and all the respondents will remain anonymous in the written report.

Please complete the questionnaire and return it in your earliest convenient time. A return envelop is also furnished for your convenience. Thank you for your time and professional assistance.

Farshid Jahan-shahi, Ed.S. Sincerely, Ph.D.


Dr. *first name* *last name*, *building* *position*
*university*
*address*
*city*, *state* *zip*

Dear Dr. *last name*,
Two weeks ago a questionnaire seeking your thoughts was mailed to you. Unfortunately I did not receive the demographic information. Your participation in the study is very important to us, recognizing that this is a very busy time of year.

Please complete the questionnaire and return it in your earliest convenient time. A return envelop is also furnished for your convenience.

Thank you for your cooperation.

## Oklahoma State University

*title* *first name* *last name*, *building* *position*
*university*
*address*
*city*, *state* *zip*

Dear Dr. *last name*,
Two weeks ago a questionnaire seeking your thoughts was mailed to you. If you have already completed and returned it, please accept my sincere thanks. If not, please take few minutes to complete it. Your participation in the study is very important to us, recognizing that this is a very busy time of year.

If you need another survey, please call me at (405) 744-1795, I would be happy to send you one. Thank you for your cooperation.

> Sincerely,

Farshid Jahan-shahi, Ed.S. Doctoral candidate

## Blanchard Training and Development, Inc.

January 7, 1992

Ms. Farshid Jahan-shahi
70 S. University Place
Apartment 1
Stillwater, OK 74075-4516

## Dear Farshid:

Thank you for your phone call yesterday.
This letter is to formally give you permission to duplicate the LBA and Scoring in your dissertation under the stipulations agreed upon in your letter of May 8.


Drea Zigarmi, Ed.D.
Research Coordinator
DZ:JK

## APPENDIX E

## LIST OF INSTITUTIONS <br> AND FIELDS OF STUDY

## LIST OF THE CONTACTED INSTITUTIONS

```
RESEARCH UNIVERSITIES I PUBLIC (TOTAL 45)
University of Missouri-Columbia
    Columbia, Missouri 65211
University of Maryland at College Park
    College Park, Maryland 20742
University of Minnesota-Twin Cities
    Minneapolis, Minnesota 55455
Indiana University at Bloomington
    Bloomington, Indiana 47405
University of Wisconsin-Madison
    Madison, Wisconsin 53706
RESEARCH UNIVERSITIES I PRIVATE (TOTAL 25)
University of Miami
    Coral Gables, Florida 33124
Duke University
    Durham, North Carolina 27706
Harvard University
        Cambridge, Massachusetts 02138
RESEARCH UNIVERSITIES II PUBLIC (TOTAL 26)
University of Nebraska-Lincoln
        Lincoln, Nebraska 68588
Iowa State U of Science & Technology
        Ames, Iowa 50011
Arizona State University
        Tempe, Arizona 85287
RESEARCH UNIVERSITIES II PRIVATE (TOTAL 8)
Syracuse University, Main Campus
        Syracuse, New York 13244
```

* Carnegie Foundation Technical Report, 1987


## LIST OF CONTACTED INSTITUTUIONS

```
DOCTORATE-GRANTING UNIVERSITIES I PUBLIC (TOTAL 30)
Northern Illinois University 24,630 6
    DeKalb, Illinois 60115
University of Southern Mississippi 13,239 6
    Hettiesburg, Mississippi 39406
University of South Florida 26,911 14
    Tampa, Florida 33620
DOCTORATE-GRANTING UNIVERSITIES I PRIVATE (TOTAL 21)
Brigham Young University, Main Campus
    Provo, Utah 84602
Saint John's University
    Jamaica, New York 11439
DOCTORATE-GRANTING UNIVERSITIES II PUBLIC (TOTAL 33)
Old Dominion University
    Norfolk, Virginia 23529
Portland State University
    Portland, Oregon 97207
University of Texas at Arlington
    Arlington, Texas }7601
DOCTORATE-GRANTING UNIVERSITIES II PRIVATE (TOTAL 25)
Northeastern University
    Boston, Massachusetts 02115
Drexel University
    Philadelphia, Pennsylvania 19104
Baylor University
    Waco, Texas 76798
```

* Carnegie Foundation Technical Report, 1987

```
Natural Science ( }\textrm{n}=20
    Botany (3)
    Chemistry (3)
    Cardiopulmonary Sciences
    Communication Disorders
    Computer Science
    Dental Hygiene
    Environmental Design
    Management Information Systems
    Mathematics
    Medical Technology
    Nursing (3)
    Physical Education and Dance
    Physiology
    Plant Pathology
Engineering ( }\textrm{n}=5\mathrm{ )
    Chemical Engineering
Social Science ( }\textrm{n}=28\mathrm{ )
    Anthropology
Child Development
Communication
Counseling Psychology
Cultural Anthropology
Economics
Family Studies
Geography
History (3)
History of art
Home Economics
Journalism
Library And Information Studies
Mass Communications
Political Science
Psychology (5)
Psychology and Behavioral Science
Social Work (3)
Sociology
Urban and Regional Planning
```

Humanities ( $\mathrm{n}=7$ )
Art and Design (Fiber, Personal Art) Dance
English Literature, Renaissance Poetry
Ethnomusicology
French and Italian
Linguistics
Theater
Business and Commerce ( $n=3$ )
Merchandising
Business Administration/Marketing
Textile and Clothing (Listric)
EDUCATION ( $\mathrm{n}=10$ )
Adult Education
Business/Vocational Education
Education
Educational Technology
Health Education
Home Economics Education
Physical Education
Science Education
Secondary Education
Special Education and Behavioral Disorders
OTHERS ( $\mathrm{n}=12$ )
French Literature, Linguistics, Women's Studies Interdisciplinary Arts: Specialty Latin American Justice Studies Law and Policy Multi-discipline Multi-discipline and interdisciplinary Occupational Therapy Policy Science/Public Administration Women's Studies

APPENDIX F

TRI-DIMENSIONAL LEADER
EFFECTIVENESS MODEL

## TRI-DIMENTIONAL LEADER EFFECTIVENESS MODEL



VITA

Farshid F. Jahanshahi<br>Candidate for the Degree of<br>Doctor of Education

Thesis: FEMALE ACADEMIC DEPARTMENT HEAD: A NATIONAL STUDY OF SELF-PERCEIVED LEADERSHIP STYLES IN DOCTORAI GRANTING INSTITUTIONS

Major Field: Higher Education Administration
Biographical:
Personal Data: Born in Urmiah, Azarbyjon, March 12, 1950, the daughter of Mahbobeh and Hossein FathiRezaee; married to Behrooz Jahanshahi; children, Behfar and Ideen Jahansahahi.

Education: Graduate from Mehr High School, Urmiah, Azarbyjon, in May 1968; received Bachelor of Science degree in Social Science from Tehran University, Iran, in 1972; received Master of Science degree in Higher Education Administration from Oklahoma State University in 1982; received Educational Specialist Degree (Ed.S.) in Higher Education from Oklahoma State University in 1985; completed requirements for the Doctor of Education degree at Oklahoma State University in May 1992.

Professional Experience: Counselor in State Orphanage, Urmiah, Azarbyjon, 1968-1968; Librarian and Secretary, Institute of Statistics, Tehran, Iran, 1968-1970; Social Service and Welfare Coordinator, National Planning and Budgeting Organization, Tehran, Iran, 1968-1972; Graduate Research Assistant, Department of Sociology, Tehran University, Iran, 1971-71; Drafted Second Lieutenant, Tehran, Iran, 1972-74; Lead Teacher, Head Start, Stillwater, Oklahoma, 1984-86; Center Director and Teacher Coordinator, Head Start, Stillwater, Oklahoma, 1986-88; Payne County Area Supervisor, Head Start, Stillwater, Oklahoma, 1988-88; Research Associate and Unit Assistant, Department of Sociology, Oklahoma State University, 1990 to Present.

Professional Organizations: Parents and Teachers for Young Children: Caring Together, 1984; Oklahoma Head Start Association, 1985; Advisory Committee for Business Services at Indian Meridian, 1987; Head Start Parent Involvement Advisory Board, 1988; Oklahoma Association for the Education of Young Children, 1988; Oklahoma State University Steering Committee Member (Friends of CDL), 1990;

Honors and Awards: National Merit Scholarship, 1968-67; Dean's Honor Roll, 1968-69; Candidate for Teacher of the Year, Head Start, May 1985; Leadership in Core Recruitment Award, Action Inc., Head Start, May 1988.


[^0]:    * Significance at p < 0.05

