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Management vs. Leadership as the Sole, Separable and Independent Factors of Perceived Educational Administration Behavior within an Urban Community College System

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MANAGEMENT VS. LEADERSHIP AS THE SOLE, SEPARABLE AND
INDEPENDENT FACTORS OF PERCEIVED EDUCATIONAL
ADMINISTRATION BEHAVIOR WITHIN AN URBAN
COMMUNITY COLLEGE SYSTEM

by

John T. Steward

A Dissertation Submitted to the Faculty of the School of
Education of Loyola University of Chicago in Partial
Fulfillment of the Requirements for the Degree of
Doctor of Education

May

1990

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The dichotomy on the efficiency of management vs. the effectiveness of leadership within the school administration community has caused many educators to question the theory that management and leadership are independent, separable competencies.

A review of the literature and related research from both the business and educational communities reveals that little has been done comparing management and leadership within higher education. A functional model of management, offered by R. Alec Mackenzie, was modified to fit educational administration functions. In order to test the model a study was designed utilizing data gathered from a management study performed by the Higher Education Management Institute (HEMI) for the nine campuses of the City Colleges of Chicago, a multicampus urban community college system.

The hypothesis, that management and leadership, as defined, are independent and separable competencies among the work-group leaders within this community college system was stated. It was anticipated that the method of factor analysis performed on the data obtained from the HEMI management survey would result in two

high-order factors which in turn would fit the model's definitions of management and leadership.

Six factors, rather than two, emerged as significant. Therefore the hypothesis was not supported and consequently was rejected. However an attempt to identify the six factors resulted in the realization that it is possible that a new, remodified model could be created and tested. This recommendation, to test the new model, and corollary recommendations were offered along with the suggestions that any conclusive findings be integrated into the cumulative body of related knowledge gleaned over the last 25 years.

The three conclusions arrived at in this study are: (1) that administrative behavior may be factor analyzed; (2) there are at least six administrative competencies indicated by factor analysis; and (3) while management may be defined as the administrator's involvement with things and ideas, both management and leadership may involve the administrator with people.

It is possible that a model of educational administration behavior based upon these conclusions may be created and tested resulting in a more unified and integrated theory of administrative competencies and behavior.

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In addition sincere gratitude is due for the assistance of the author's dissertation committee members: Dr. Max A. Bailey, Director; Dr. Philip M. Carlin, Reader; and Dr. Jack A. Kavanagh, Reader.

VITA

The author, John (Jack) T. Steward, is the son of Jack and Jeanette (Mallace) Steward. He was born January 6, 1935, in Chicago, Illinois.

His elementary and secondary education was obtained in the public schools of Chicago, and he entered the United States Air Force in 1951.

Following discharge from the military, he attended the City Colleges of Chicago on a part-time basis and in 1964 was granted an Associate of Arts Degree. He then received a Bachelor of Arts in Philosophy from Roosevelt University, Chicago, in 1970 and a Master of Education Degree from DePaul University, also in Chicago, in 1972.

After serving as an adult education administrator for nineteen years within various institutions of higher education, he is presently employed by the City Colleges of Chicago as an executive dean.

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CHAPTER I

INTRODUCTION

In the May/June, 1977, issue of The Harvard Business Review, Abraham Zalesnik concluded that managers and leaders are different types of people! (Zalesnik 1977), a conclusion which, if extended, may imply that management and leadership are different aspects of school administrative behavior as well. If Zalesnik's point is well founded, are management and leadership, then, the sole chief competencies of a school, college or university administrator?

Further, if management and leadership are distinct competencies within the school administration process, is it possible to isolate one from the other by some kind of functional, semantic or, perhaps, statistical analysis? It may be argued that management and leadership are one within the other; or that management and leadership, while perhaps conceptually or semantically different, can not be distinguished as independent competencies within an individual administrator or group of administrators. The questions are limitless but not necessarily pointless.

In order to emphasize the need for distinction between management and leadership, James C. Enochs

argues that the movement from educational leadership to management has been a costly one to the educational community. He says that too many administrators are more interested in managing than leading because managing is less demanding and less risky: "Managing," he states, "may be an artful way of preventing a job from exceeding the limits of its holder" (Enochs 1981).

This current stress on management rather than leadership is also noted by Sullins. He objects to college administrators who rush to emulate their counterparts in business and industry with the trappings of management techniques. He further feels that this has caused us to fail to realize that successful managers in business and industry must also be leaders. But he does suggest that there are those who feel that educational leadership and tough management are sometimes competing and yet so intertwined that one should not attempt to separate the two (Sullins 1981).

Fiedler and Chemers state that "all managers who supervise people are leaders," and add that leader effectiveness is measured "in terms of how well the leader's group performs its assigned functions" (Fiedler 1974).

While the above paragraphs indicate a concern over the appropriate relationships between management vs. leadership within educational administration, they do little to add to our understanding of the important and relevant behaviors or factors within educational administration. Admittedly it is a start, but perhaps overly

simplistic: $E=MC^2$ may be good physics, but A(Administrator) = M(Management) + L(Leadership) may cause us to believe that a "good" school administrator may simply be an MBA who supplemented his studies with writings by Machiavelli and Dale Carnegie.

This point of view, as naive as it may appear, frequently is taken by advocates of both the management and leadership camps. For example, R. Alec Mackenzie contrasts two American generals of World War II, Omar Bradley and George Patton, manager and leader, respectively (Mackenzie 1969).

The danger in this type of labeling or stereotyping misses the point that although Bradley excelled in planning and managing campaigns, he did have the ability to inspire his followers to success. Conversely, while no one doubts the effectiveness of the charismatic mien and popularity of Patton, it cannot be said that he earned this respect through tactfulness and diplomacy, both traits commonly accepted as positive indications of leadership.

Barber, in order to reconcile some of these apparent contradictions, proposes two dimensions of leadership: (1) activity/passivity and (2) the positive/-negative effect. In defining presidential types Barber asks "How much energy does the man invest in his presidency (activity/passivity)?" and "How does he feel about what he does (positive-negative effect)?" Barber combines these two dimensions into four basic "character patterns" and applies them to a number of United States

presidents with examples:

- Type I. Active and positive: High-energy achievers who enjoy it; examples are Franklin Roosevelt and Harry Truman.
- Type II. Active and negative: High-energy achievers who gain little satisfaction; examples are Woodrow Wilson and Richard Nixon.
- Type III. Passive and positive: Do-nothings who enjoy it; an example is Warren Harding.
- Type IV: Passive and negative: Miserable do-nothings; an example is Calvin Coolidge (Barber 1972).

Such a classification may be helpful to historians and psychologists but does little for creating a clearer understanding of sound administration principles. It is not difficult to envision an ecstatic, hyperactive executive lacking the more obvious personal and administrative traits of a Roosevelt or a Truman. We may even be able to substitute school administrators we know for Barber's examples and find that the more successful of them belong to the Type I group. But to state that we can predict administrative success on the active-positive dimensions, as formulated above, appears fallacious.

How, then, can we determine what is going on when we observe the successes of an effective school administrator? Is it simply the appropriate amounts of, or balance of, management and leadership, or are there other factors interacting, which may be perceived and controlled, resulting in successful goal achievement? Many of the more scientific approaches to answering these questions will be cited in the succeeding chapter.

In later chapters an attempt will be made to descriptively support or discredit the simple management-leadership dichotomy by constructing, testing and accepting or rejecting an appropriate hypothesis.

The opportunity to test such a hypothesis presented itself in 1981 when the City Colleges of Chicago made the decision to improve its management competencies across the multi-campus district. A brief history and background of the City Colleges of Chicago (Illinois Community College District #508) will help in establishing the need for such a decision.

The City Colleges of Chicago

In 1911 the principals of Crane Technical High School and Lane Technical High School of Chicago, Illinois, began enrolling students into post-high school courses; twenty students at Crane and twelve at Lane. After this date Crane alone offered post-high school courses, and it was here that Chicago's first junior college really developed.

Accredited by the North Central Association in 1917, the college grew rapidly, reaching an enrollment of more than 3,000 in 1933. Then with feelings of shock and disbelief, Chicago residents learned in July of 1933 that due to the Great Depression the Chicago Board of Education suddenly abolished the college as an economy measure.

Mounting public pressure by Chicago's leading citizens caused the Board to rescind its action and

three branches of the Chicago City Junior College were opened the next year, 1934. They were geographically located on the North, West and South Sides of Chicago. The college continued to flourish until the beginning of World War II when enrollments dropped drastically and most of the physical facilities were turned over to the armed forces.

But when the war ended, returning servicemen again caused enrollment to swell which in turn brought about the "Extended Day" schedule -- 8:00 AM until 10:00 PM. The college continued to develop through the early 1950's, and between 1955 and 1957 several key bills were passed in the General Assembly to provide state aid payments directly to the junior colleges.

By September 1960 the city's junior college system had expanded to seven campuses. Under the "proximity principle" these campuses, frugally housed in public high school buildings, were located strategically across the city. In addition the college had been experimenting with credit courses via open-circuit television, a first in the nation.

Another giant step was taken during the early '60's by initiating two-year technical and nursing degree programs designed to train students for immediate employment rather than for transfer to four-year institutions.

Governance by the Chicago Board of Education over the colleges came to an end on July 1, 1966 when Junior College District #508 was born. Renamed the Chicago

city Colleges, it was placed under the control of a seven-member board appointed by the mayor. Along with this change came income and support from local tax levies and state flat-grant funding and equalization aid. In 1969 the system was renamed the City Colleges of Chicago (Master Plan for the City Colleges of Chicago 1974).

As of October, 1980 the City Colleges of Chicago consists of the following nine semi-autonomous campuses;

Chicago City-Wide College; founded 1975;

enrollment: 12,790.

Daley College; founded 1960;

enrollment: 7,413.

Kennedy-King College; founded 1934;

enrollment: 9,456.

Loop College; founded 1962;

enrollment: 7,876.

Malcolm X College; founded 1911;

enrollment: 7,254.

Olive-Harvey College; founded 1957;

enrollment: 6,786.

Truman College; founded 1956;

enrollment: 10,225.

Wright College; founded 1934;

enrollment: 10,175.

Chicago Urban Skills Institute; founded 1970;

enrollment: 38,100 (City Colleges of Chicago Fact Sheet, 1983).

The Need for a Management Study

With a total enrollment (1983) of more than 200,000 and a faculty, clerical and administrative staff exceeding 4,000, the colleges felt a need for a management study. Until July, 1966, the system had been administered by the Chicago Board of Education and had undergone uncertain times. Its rapid growth since then and its vast geography (the system's boundaries are coterminous with the boundaries of the City of Chicago) do not easily lend themselves to centralized, "under-the-thumb" administration or management. It was determined at this time, therefore, that the study should begin with the goal of eventual general improvement of management within the entire system. It was further decided that the study be performed by the system itself under the guidance of the Higher Educational Management Institute (HEMI) of Coconut Grove, Florida, which is a part of the American Council on Education Center for Leadership and Academic Administration, Washington, D.C. A seven-member task force was named to manage the effort, and the writer of this paper was included as a member of the group.

The Higher Education Management Institute

The Higher Education Management Institute was established in April, 1976, under a grant from the Exxon Education Foundation. The purpose of the Institute was to develop a management training program geared to the needs of the higher education community.

Formal management development and training programs have been features of commercial and industrial organizations for years. Borrowing from these experiences and materials, HEMI has developed a program for management development and training for higher education institutions which was field tested on 23 pilot colleges and universities.

The entire program now includes five phases:

1. Introduction -- Gives the institution under study sufficient information for program start up.
2. Needs Assessment -- Quantitatively describes the institution's current management functioning.
3. Action planning -- Compiles institutional needs and interests; identifies opportunities for improvement; sets institutional priorities; plans a program to meet high priority needs; assigns responsibilities.
4. Implementation -- Delivers management development and training programs to work groups, training groups and individuals.
5. Evaluation -- Systematically determines program effectiveness and provides basis for program continuation (HEMI Brochure).

This study is concerned only with Phases 1 and 2 and no further references will be made to Phases 3, 4 and 5. More specifically, Phase 1 will be used for appropriate background and description while Phase 2 of

the program will be used to describe data gathering.

Phase 1 of the HEMI Program

The initial phase of the program involves orientation and task force selection from the campus administrative pool in consultation with a HEMI representative. Program literature is disseminated, program concepts and structure are discussed, and finally a decision to participate or to not participate in the program is made. Once the introduction to the program is presented to the administrative staff and a decision is made to participate in the program, a formal legal contract is entered into between the college system and HEMI. It is during this initial phase of the program that a key concept is presented to the task force, that of the work group.

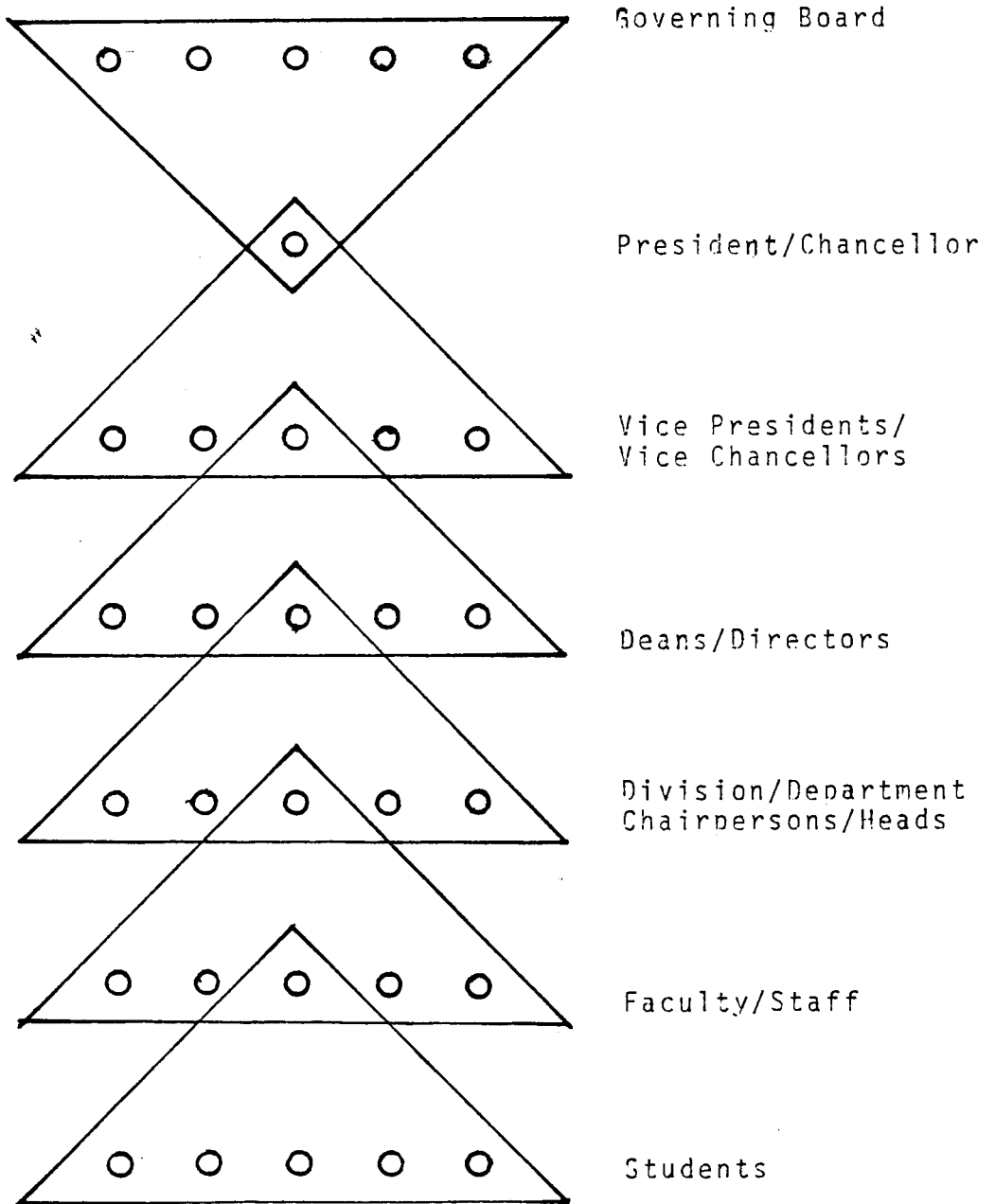
The work group is defined as "two or more individuals reporting to a leader, plus the leader." It is important to note that a work group leader is always a member of another work group who reports to another work group leader. These relationships are illustrated in Figure 1. This concept of the work group will be more fully explained below under the sections entitled, "Review of the Related Literature" in Chapter II and "The Survey Instrument" in Chapter III.

Phase 2 of the HEMI Program

The second phase of the program, which chiefly involves the management needs assessment of the college

Figure 1

WORK GROUP AND WORK GROUP LEADER
RELATIONSHIPS IN INSTITUTIONS OF HIGHER EDUCATION



REDRAWN FROM HEMI BROCHURE

system, is carried out via a survey. Each and every work group which exists in the system, along with its work group leader, is identified by the task force. Following work group identification, each task force member is assigned an equitable share of the groups for survey. Then each task force member schedules time for each of his groups during which survey instruments and answer sheets are issued, completed and collected. Next, all completed survey answer sheets are sent to the HEMI Records and Development Center, Coconut Grove, Florida for statistical tabulation.

The tabulated data is returned to the task force in two forms:

- (1) the confidential individual work groups results which are available only to the respective work group leaders, and
- (2) individual campus aggregate results which are available to all work group leaders.

Due to the confidential nature of the work group results, only the aggregate campus results will be analyzed in this study. Justification for this decision will be provided in Chapter III, "The Design of the Study".

The remaining three phases of the HEMI Program are not relevant to this study. The previous brief descriptions of these phases were offered solely to illustrate the context of Phases 1 and 2 of the program and to present overall background on HEMI.

Principal Hypothesis

A cursory examination of recent literature indicates concern over a stress on management rather than on

leadership within the higher educational community. But in order to approach this problem it appears that a formal distinction should be drawn between these two apparent factors of educational administration, and that it should be determined whether or not they are the sole factors of educational administration.

Simply stated, then, the principle hypothesis to be tested is:

"Management and leadership are the sole separable and independent factors involved in perceived educational administration behavior."

In Chapter III the terms "management," "leadership" and "administration" will be defined as applied to this study. Due to the nebulous meanings of these terms, it is first necessary to review the related literature.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

Organizational concerns over administration, leadership and management are logically related to the concept of organizational effectiveness. If organizations operated with perfect effectiveness there would be no need to analyze the factors which lead to goal achievement. Historically, studies in organizational effectiveness began with investigations of the various management approaches of business and industry.

Since the principles of various management theories which have evolved from business and industry have been subsequently borrowed by school administration (Sullins 1981), it appears appropriate to review the related literature in two sections:

- (1) the literature from business and industry and
- (2) the literature pertaining to educational management, particularly to higher education management.

Business and Industry

One of the earliest writers on organizational effectiveness and industrial management was F. W. Taylor, a production manager at the Modvale Steel Works in Philadelphia. Known as the "father of management" he

published two books which resulted in popularizing the theory of "scientific management" (Taylor 1911).

To begin with, Taylor made some basic assumptions which were readily accepted by his contemporaries. He assumed that work was distasteful, the major concern of working men was financial compensation, workers preferred to be treated as individuals, the monetary goals of managers and workers were similar, and only a few selected men are capable of working independently and creatively.

These assumptions regarding employees resulted in scientific management being segmented into three major areas:

- (1) classifying overall tasks into basic work elements,
- (2) identifying management's function as planning, and
- (3) dividing the work between management and workers utilizing the best available talent resulting in increased efficiency.

This model which clearly defined standards of performance and rigid procedures for each job was later somewhat refined by Henri Fayol, a French industrialist. Dividing industrial organization into six types -- technical, commercial, financial, security, accounting and managerial -- Fayol's contribution to scientific management included three additional basic assumptions: (1) authority should be related to responsibility, (2) for each objective there should be unity of command, planning and activities, and (3) cooperation among managers was required in order to overcome obstacles to

goal achievement (Fayol 1949).

Scientific management continued to be the dominant management mode during the first quarter of the twentieth century. Its emphasis on economic compensation for the worker and specific definitions of roles and tasks, however, were seriously being questioned. Then in 1927 Elton May and Chester Barnard made some startling discoveries at the Hawthorne Plant of Western Electric. One of their experiments, which were known as the Hawthorne Studies, began by increasing the visual lighting of workers which resulted in increased productivity.

However, when lighting was decreased, production again increased. Later, interviews among the workers revealed that they were enjoying the attention they were receiving during the experiments and were motivated to work harder when lighting was decreased.

Consequent studies by May and Barnard found that workers would prefer to receive less pay if it would gain them acceptance by their work groups; thus, the group had a personality of its own. Overall, the Hawthorne Studies revealed that employees were motivated by factors other than financial compensation for their productivity. Internal needs such as positive human relations and physical environmental conditions contributed to goal achievement.

Although scientific management theories dominated business and industry's approach to organizational effectiveness for the better part of this century, the field of motivational psychology had been evolving since

1879 when Wilhelm Wundt began to experiment with human behavior. In 1939 Kurt Lewin, relying on Gestalt psychology, posited that groups had dissimilar characteristics than of the individuals comprising the group (Lewin 1939). Group theory thus became an important aspect of organizational effectiveness.

Later, in 1956, C. L. Shartle published his Executive Performance and Leadership as a result of his work at Ohio State University. The OSU group, while striving to identify effective leader behaviors and to teach these leader behaviors to foremen at International Harvester, identified the two most often used leader behavior dimensions of consideration and structure (Shartle 1956).

Fleishman, also an early member of the OSU lead-study group, defined these two dimensions:

"Consideration" reflected the extent to which the leader established rapport, two way communication, mutual respect, and consideration of the feelings of those under him. It comes closest to the "human relations" aspects of group leadership. The other dimension, called "Initiating Structure," contained items reflecting the extent to which the supervisor defines or facilitates group interactions toward goal attainment. He does this by planning, scheduling, criticizing, initiating ideas, organizing the work, etc. (Fleishman 1955).

Another researcher who studied the needs of workers is Chris Argyris who in 1957 showed that workers need worthwhile work, a sense of self esteem, recognition and involvement in the decision making process. He concluded that employees are motivated by "psychological energies" which when channeled toward the company's goals result in high productivity, but if the company's

goals are in conflict with the individual's, the energies are then channeled against the company's goals (Argyris 1957).

One important and extensive study was performed by Stogdill and Coons in 1957. Their work resulted in the development of the Leader Behavior Description Questionnaire (LBDQ) at Ohio State University. Based on statistical analyses of over 1500 behavior descriptions, the two major factors were again identified -- consideration and initiation of structure. An attempt will be made to relate these two factors, by definition, to the results of this present study because of their extensive and general acceptance by leadership researchers.

Then in 1960 Douglas McGregor combined his version of scientific management theory with his new theory which held a more optimistic view of human nature. The former theory he termed Theory X and the latter Theory Y (McGregor 1960).

Theory X, sometimes called the "classical" approach to motivation, postulated that people have an inherent dislike for work which results in management having to force the employee to work. Consequently management must exercise authority and offer bribes to the employee and must also constantly supervise the employee.

Theory Y, on the other hand holds that the employee has an inherent willingness to work. Work is a pleasurable function like eating and sleeping and may be self-directed resulting in personal satisfaction and self-

esteem.

The rub is that companies may take the Theory X point of view which perpetuates itself causing the Theory Y employee to exhibit Theory X behavior. However, McGregor feels that if the employee were realistically treated as a Theory Y individual, he would receive job satisfaction resulting in increased productivity.

Due to the inherent goodness of the employee, McGregor further states that the employee is capable of being involved in the decision making process with management. This is not to say that a company should be operated on a purely democratic basis or that authority should be relinquished, only that employee involvement in planning and goal setting, again, should result in increased productivity and organizational effectiveness.

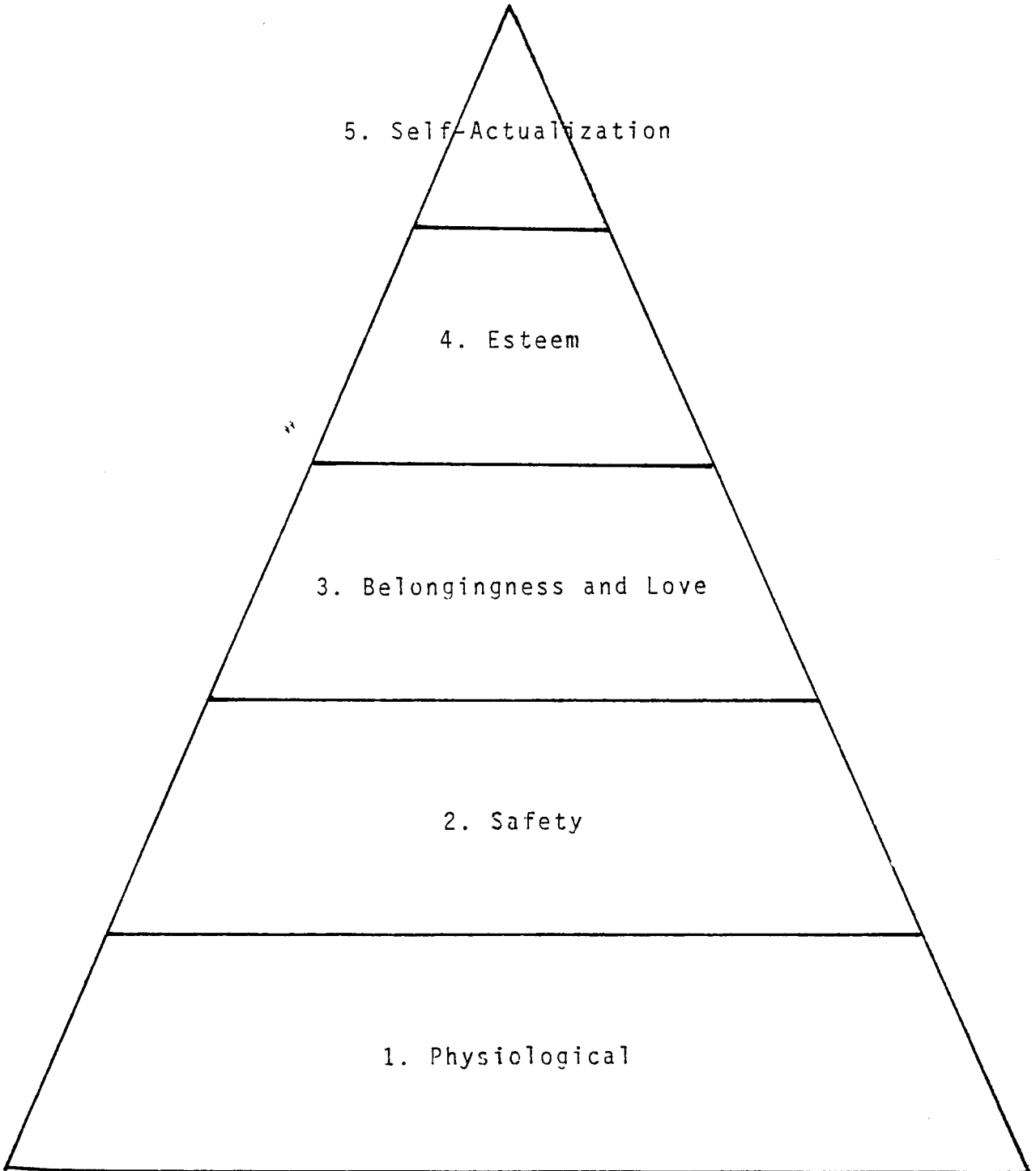
The key to utilization of McGregor's Theory X and Theory Y is adaptability. Both theories, McGregor believes, have merit under different environmental conditions. The use of one or the other theories exclusively is not advocated. Flexibility in management alternatives is required in order to get the best out of employees.

Closely associated with McGregor's Theory Y is Abraham Maslow's universally accepted Hierarchy of Needs (Maslow 1962). A schematic presentation of Maslow's theory is illustrated in Figure 2.

Maslow, by surveying the personal needs of businessmen, found that his subjects rank-ordered their

Figure 2

MASLOW'S HIERARCHY OF NEEDS



internal needs on a cumulative-successive basis. A need within the hierarchy would not motivate an individual until those needs beneath it were satisfied. For example, the need for safety would not be dominant until the physiological needs are met, likewise the need for self-actualization would not dominate until the need for self esteem is satisfied.

The implications of Maslow's theory are tremendous. If the theory is applied to motivating employees in order to increase organizational effectiveness, managers have much more to account for than the economic needs of employees. That is to say that as soon as one level of needs is met, the manager must attend to the next level. The process is on-going due to the fact that when self-actualization needs are met, they immediately reformulate themselves, thus creating new goals at that level.

In addition, the possibility exists that a previously satisfied need at a lower level may be frustrated due to some change in the environment resulting in the lower need again becoming dominant. This is a far cry from the simple scientific management theory which considered only economic needs.

In 1966, relying heavily on Maslow's Hierarchy of Needs, Fredrick Herzberg presented his motivation-hygiene theory. This work expanded Maslow's findings by not only recognizing the positive effects of filling workers' needs but also by recognizing the negative effects of the presence of dissatisfactions (Herzberg 1966).

Briefly, Herzberg found, after questioning 1,685 people about their jobs, that most of the positive feelings they had toward their jobs were related to content factors (motivators) and negative feelings were associated with context factors (hygienes).

Satisfiers, or motivators, defined as aspects of the job content, include achievement, recognition, work itself, responsibility, advancement and growth. Conversely, dissatisfiers or hygienes, defined as aspects of the job context include company policy, working conditions, salary, status and job security. The task of management, according to Herzberg, is to maximize the satisfiers and minimize the dissatisfiers. The question here is "Are satisfiers, as well as dissatisfiers, the same for all individuals?"

A similar, two dimensional approach to supervision was taken by Blake and Mouton when in 1964 they offered their managerial grid theory. The two dimensions are labelled "concern for people" and "concern for production." Concern for people is expressed by commitment, accountability, trust, esteem, good working conditions, equitable salary structure, security, positive social relations, etc. Concern for production as exhibited by the supervisor may be seen in the quality of decisions, creativity, quantity of work produced, quality of staff services, efficiency, or whatever else the organization wishes to produce.

As mentioned, the grid is two dimensional which means that a supervisor may exhibit any amount, or mix,

of the two concerns. In other words the two concerns are independent, and when a supervisor or manager responds to a situation, there are a broad range of alternative ways for him to go about his work (Blake and Mouton 1968). "Concern for people" and "concern for production" correspond very positively with the "consideration" and "structure" factors of Shartle, Fleishman, et al., and the Theory X and Theory Y of McGregor, respectively.

Another Ohio State Leadership Study performed by Fleishman and Harris expanded the scope of consideration and structure to include the notion of leadership climate which was influenced by the behavior and attitudes of the foreman's own boss. These researchers also found that although there may be an optimal balance of consideration and structure in any given supervisory situation, the independence of the two factors and their interactiveness show that the relationship is curvilinear and not linear. In other words, in any given leadership situation an increase or decrease in one factor does not mean a one-for-one opposite change in the other. In general, however, "taken in combination, Consideration is the dominant factor" (Fleishman and Harris 1962).

Fiedler describes a number of studies, including his own, which support the theory that leadership and managerial effectiveness is contingent. That is "it seems reasonable to expect that the leader's personality must in some way interact with the favorableness of the

situation" (Fieldler 1972). Similarly, this "Contingency Model" of leadership was earlier demonstrated by Sample and Wilson showing that the same leaders dramatically change behavior as the situation changes (Sample and Wilson 1965).

One of the more important theorists for the present study is Rensis Likert who published his book, The Human Organization in 1967. The importance of Likert's proposals is that all workers and managers are members of at least one work group. While workers are usually included in only one work group, managers or work-group leaders being members of the work groups they lead are also included in the work groups led by their own respective managers. The manager thus becomes what Likert calls a "linking pin" within the total organization (Likert 1967).

Likert believes that a manager's effective authority comes from his subordinates themselves regardless of how much titular authority he holds by virtue of his position alone. Further, some of the authority granted the work group leader by his subordinates is a direct function of how much influence the leader has over his own boss. There the linking pin concept is important to overall management effectiveness of the organization.

In addition, Likert believed every organization exhibited one of the following four systems of leadership:

System 1 - Exploitive-Authoritative

System 2 - Benevolent-Authoritative

System 3 - Consultative

System 4 - Participative-Group

Hushaw defines Likert's System 4 Management Theory by describing the characteristics of four different management systems, placing each of the four on a continuum from an extremely authoritative type of behavior at one end of the scale to a participative group type of behavior at the other.

System 1 is described as exploitive authoritative. Systems operating in this mode tend to discount individual contributions to the organization's goals; communication is primarily downward; and goals are established, and decisions made, at the top. Performance characteristics also include average productivity, absenteeism, and difficulty in enforcing standards. Work is more an individual than a group concern.

System 2 is described as benevolent authoritative. Managerial personnel feel responsibility for achieving the organizational goals, but others do not. Conflict often exists. Communication laterally may be greater than in System 1, but is still primarily downward. Decision making is not necessarily at the higher level, but is often based on usually more accurate information from lower levels. Likert describes the productivity as fair to good, but team work of any sort is still lacking.

System 3 is described as consultative. A substantial proportion of personnel feel responsible for and generally are concerned with achieving the organizational goals. Communication is improved in both horizontal and vertical directions, and the accuracy of the information flow is increased over System 2. Decision making involves more personnel. Some decisions are now made at lower levels though most are made at the top. Performance characteristics include good productivity, declining absenteeism, some individual work, but importantly, the beginning of teamwork.

System 4 is described as participative group. Systems operating at this level tend to make use of the self-fulfillment motives of personnel. The group is involved in establishing goals and improving methods. Communications flow freely both horizontally and vertically. Decisions are made throughout the organization through an overlapping

4 group structure and tend to promote and encourage teamwork and cooperation (Hushaw 1977).

In 1967 a new theory, Situational Leadership Theory, developed from the writings of W. J. Reddin. Reddin's Management Style Theory explained the importance of a manager's relationship orientation and his task orientation in conjunction with effectiveness. This meant that effectiveness was the result of matching style to situation (Reddin 1967). Relying upon Reddin, to some extent, Hersey and Blanchard posited that according to their Situational Leadership Theory, as an employee or group of employees gain in maturity, the need for supervisory social-emotional support decreases while the need for structuring decreases. Further they stated that follower maturity could be sorted into three levels -- high, moderate or low. When the maturity level of a work group is high, the leader or manager does a lot of delegating; when the maturity level is moderate, the manager promotes participation and selling; when the maturity level is low , the manager does a lot of telling (Hersey and Blanchard 1982).

Vecchio, having tested the theory on 303 full-time high school teachers, agrees that more recently hired employees may require greater structuring from their supervisor, but that more mature employees may not require any supervision at all. In addition Vecchio feels that Situational Leadership Theory does a good job of synthesizing the views of writers such as Hersey and Blanchard, McGregor, Argyris, Likert, Maslow, Herzberg, Lewin and a number of earlier writers and researchers

5

(Vecchio 1987).

Latham believes that trait theories of leadership did not take hold in the past because they did not take into account the situational aspect of leadership. Drawing upon the work of Bales (1950) and Shaw (1973), Latham suggests two dimensions of small groups' tasks, "interest of group members" and "task challenge," and that interest may be high or low and challenge, too, may be high or low for any given situation resulting in four possible composites. Latham names four corresponding leadership styles which can attend these four composite situations respectively, the "coordinator," "inventor," "enthusiast," and "director." Latham believes leaders can be trained (1) to assess the group's motivational level and (2) to display the behaviors appropriate to the situation (Latham 1987).

Hammer and Turk relied on three earlier studies to provide a foundation for their situation-task model: the resource-dependence model of organizational control (Pfeffer and Salancik 1978); the multiple influence leadership model (Hunt and Osborn 1982); and Stewart's demand-constraints-choices model of managerial jobs (Stewart 1982). Collectively, according to Hammer and Turk, these models "have incorporated organizational constraints by separating those aspects of the leader role that originate in the leader from those caused by outside forces" (Hammer and Turk 1987). Employing "demand" and "constraint" as these outside forces,

Hammer and Turk found that technology, union strength, and pressure from upper management were the dominant factors which influenced leader behavior. The researchers do not believe that responsive leadership is as important as discretionary leadership, but they do believe that responsive leadership deserves more extensive and intensive study than it is presently getting. "After all," they state, "the role of the work-group leader contains more than supervising subordinates."

McClelland (1985) argues that effective leaders exhibit high power motive in combination with low affiliative motive and high activity inhibition. He adds that the need for power is an appropriate motive for meeting the role demands of positions of influence. McClelland and Boyatzis (1982) had already demonstrated that managers who possessed the leadership motive pattern, cited above, had significantly higher levels of advancement after 8 and 16 years of experience. These findings, however, held only for those managers in nontechnical jobs.

In 1986 Fiedler offered his Cognitive Resources Utilization Theory which was induced from earlier research produced by himself and others. This theory was intended to specify the conditions under which leader intelligence and task related abilities are predictive of the leader's effectiveness. These specific conditions, in general, are directive leader behavior, freedom from stress, support of followers, and possession of task related knowledge (Fiedler 1986).

The following year Fiedler and Garcia published a book reporting the results of numerous studies which demonstrated support for the theory (Fiedler and Garcia 1987). In addition the theory links positively with Fiedler's earlier Contingency Theory (Fiedler 1964).

More recent approaches to theories of leadership are the charismatic and transformational theories.

House and Singh state:

In contrast to traditional theories of leadership which take as their dependent variables the performance, satisfaction, and cognitions of subordinates, charismatic or transformational leadership theories take as their dependent variables followers' emotional responses to work-related stimuli; followers' self-esteem, trust and confidence in the leaders; follower values and follower motivation to perform above and beyond the call of duty (House and Singh 1987).

In addition, the charismatic and transformational leaders instill followers with a sense of vision and mission. According to Burns, transformational leadership occurs "when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality." Accordingly, transformational and charismatic leaders attend to followers' "...wants, needs and other motivations, as well as their own and thus they serve as an independent force in changing the make-up of followers' motive base through gratifying their motives" (emphases original, Burns 1978).

There is also strong evidence that charismatic and transformational leaders lend something more to an organization than just effectiveness. House proposes

that charismatic leaders are more self-assured, experience more meaningfulness in their work, report more back-up from their superiors, work longer hours, perceive their own leaders as more dynamic, and receive higher performance ratings than less charismatic but more effective leaders (Smith 1982).

Howell compared the effects of charismatic leader behavior on followers with the effects of structuring or considerate leader behavior. He found that charismatic leadership behavior had a stronger and more positive influence on the performance and satisfaction of followers (Howell 1985).

A study of charismatic and noncharismatic American presidents by House indicates that the charismatic presidents received significantly more frequent expressions of positive affects from their cabinet members. In addition the charismatic presidents exhibited significantly more need for achievement and power as evidenced by analyses of their respective inaugural addresses (House 1985).

Yukl and Van Fleet found in four separate studies that "inspirational" leaders were more effective and affected higher levels of follower motivation (Yukl and Van Fleet 1982). House explains that the inspirational leader behavior was consistently related to the behavior of charismatic leaders (House and Singh 1987).

Charismatic leadership, Bass reports, as a dimension, accounts for 66% of the response variance concerning follower perceptions of their transforma-

tional leaders (Bass 1985). However, there is the possibility that the leaders are rated on the basis of group performance or effectiveness rather than on actual leader behavior (House and Singh 1987).

Extending the concept of leaders providing vision during transformational changes within their organizations, Beer and Walton state, ". . . research has found the envisioning skills of the executives to be critical in managing change (Beer and Walton 1987). After studying 17 companies which had been successfully revitalized, Anderson et al found that the key factor for positive change in these companies was the existence of "championing" leaders. "Such leaders fight persistently for their ideas, are more ideological than their business-as-usual counterparts, manage by symbols, set an example of championing leadership for potential leaders throughout the corporation, and use rewards and interchampion competition as motivators" (Anderson et al 1985).

Bennis and Nanus, having interviewed 90 famous figures from government, business, education, labor and the arts, found little commonality among them other than four themes, or strategies, in action: attention through vision, meaning through communication, trust through positioning, and the deployment of self (Bennis and Nanus 1985). These authors also endorse the notion of "empowerment," from the leader to the followers. This strategy has been held valuable by other researchers (Kanter 1983) and (Burke 1985), and Sashkin noted

"research is consistent in suggesting that effective leaders involve subordinates rather than dominating and . . . give away power. . . . leaders achieve goals through others, and unless others have the power to do what the leader wants done, such achievements are not likely" (Sashkin 1985).

Transformational leadership also expects a matching of the internal and external environments (Katz and Kahn 1966; Lawrence and Lorsch 1967; Beer 1980; Burke 1982). This open-view approach to management has led researchers and managers to take notice of the stakeholders involved in an enterprise (Freeman 1984; Auerbach 1984; Roberts and King 1985; Porras 1985).

It appears that this latest research in leadership behavior does not focus on leader behavior alone. Initially broadening the focus to include followers, the focus now also includes individuals and groups which hold a major stake in the effectiveness of the organization. Not only leaders and followers, then, contribute to the overall leadership climate of an organization.

The earliest consideration of climate as a key link between an individual and his environment took hold through Lewin who studied climate as a determinant of motivation and behavior (Lewin 1951). This work was extended by the human relation theorists, (e.g., Blake and Mouton 1964; Likert 1967; McGregor 1960), as described above. Then in 1968 Litwin and Stringer showed that climates in three separate, simulated

organizations became increasingly differentiated, over time, according to the leadership styles of their leaders (Litwin and Stringer 1968).

The evolution of climate through time and leadership styles within an organization led to the idea that the role-making process is a three-phase sequence: role taking, role making, and role routinization. This leader-member interaction is processed through negotiating latitude or "NL," (Graen and Scandura 1987). In general, group members within a Fortune 500 manufacturing organization who tested high in NL were found to be more trusted, have more discretion, and have better communication with their leader than do members low in NL (Kozlowski and Doherty 1989).

Higher Education

Up to now this review of the related literature has examined the study of the evolution of organizational effectiveness as a product of employee productivity within business and industry whose bottom-line assessment of effectiveness is profit measured in dollars. But according to John Stephens there are major differences between commercial institutions and institutions of higher education:

1. Use of profit as indicator
2. Organization structure
3. Definition of goals
4. Reluctance to outside evaluation
5. Efficiency as effectiveness (Stephens 1967).

Institutions of higher education are, or at least should be, principally concerned with education, while commercial institutions are chiefly concerned with financial profit. Although the literature focuses on profit making organizations, institutions of higher education may, and often do, apply management techniques to achieve their goals. But again, profit in the sense of dollars cannot be utilized to measure the value of those techniques.

Organizational structure in universities and colleges according to Reif are, to a greater extent than business, comprised of discrete "fiefdoms" of turf (Reif 1977), and these units are more loosely connected in education than in business (Weick 1974). Romney has shown, however, that there exists much commonality between these units in their perceptions of an institution's goals (Romney 1977). These studies will prove useful in supporting the research design of this paper as described in Chapter III.

Although institutions of higher learning have been pressed recently to be more accountable to the public, both academically and financially, there exists among them a greater reluctance to submit to outside evaluation and assessment than exists within businesses. Bowen claims that academicians feel no one outside the educational community knows enough about it to assess it (Bowen 1973).

Another difference between higher education institutions and business is the focus on efficiency

when assessing the former rather than effectiveness as in the latter (Meeth 1974 and Hartmark 1975). Although there are many studies on efficiency, which usually measures cost effectiveness and innovation, within programs of higher education, there has been little done on management effectiveness (Cameron 1978).

A recent ERIC search, utilizing the three descriptors of "Higher education," "Management," and "Leadership," resulted in a mere 66 entries for the years 1983 through 1989 (Silverplatter vi.5). Most of these were not of the scientific method but, rather, in the "how to" or pop-management approach. This is not to say that there is a dearth of scientific management and leadership studies, but only to repeat that most of the work still takes place within business and industry.

Peterson and Mets state ". . . governance, management, and leadership do not delineate a clear institutional function or set of activities. Governance, management, and leadership can be discussed at state, system, or institutional levels. Furthermore, the terms government, governance, management, administration, and leadership often overlap in a confusing way" (emphasis original, Peterson and Mets 1987).

In spite of the drawbacks in assessing organization and management effectiveness in higher education, some important findings have been presented in the recent literature which should prove relevant to this study. Likert found "to be effective and to communicate as intended, a leader must always adapt his behavior to

take into account the expectations, values and interpersonal skills of those with whom he is interacting" (Likert 1961). While Likert's conclusions were drawn from studies in industry, institutions of higher education, too, have exhibited participative behavior patterns despite their classical patterns of organizational structure which tend to inhibit such open communication and participation (Hushaw 1977).

While studying the administrative competencies needed to serve in various levels of management in higher education, Cloe found that the most important competency perceived was that of understanding human behavior (Cloe 1973). The requirement to understand human needs was also studied by Cartwright who showed that to effect change and effectiveness in colleges and universities those who wish to influence the change must have an understanding of belonging to a group (Cartwright 1961).

In 1969 Thompson stated that structural looseness, free communication and decentralization characterized the most effective colleges and universities (Thompson 1969). Also examining the administration of effective colleges and universities, Hyatt made the major discovery that faculty preferred a more participatory management style (Hyatt 1969).

A number of studies have given evidence that the more productive institutions exhibit a greater amount of decision making shared by employees and administrators. The Carnegie Commission on Higher Education showed that

increased involvement by employees in the decision making process results in increased organizational effectiveness (Carnegie Commission on Higher Education 1972).

Scigliano, while surveying community colleges in Florida, found that institutions allowing a higher degree of faculty participation within the decision making process that concerns their areas of need are more productive. Higher productivity in this case means more efficient, more graduates and more adaptive (Scigliano 1971).

Earlier, Rubenstein and Haberstroh offered five major characteristics of innovative and more effective institutions:

1. Greater participation leading to increased commitment;
 2. Interdependence of members of the group;
 3. Recognition of individual merit and absence of intrigue;
 4. The supervisor as an agent for communication;
 5. Employee's acceptance of responsibility
- (Rubenstein 1966).

In 1976, Kipps and Rinander found that 80% of the administration and 70% of the faculty of California's colleges and universities desired more participation in the decision making process (Kipps and Rinander 1976). More specifically Carlisle differentiates between critical and routine decision making and advocates involvement of decisions by units of the institution

only if a decision directly involves a unit (Carlisle 1975).

This idea of contingent participation is also advocated by Tannenbaum and Schmidt who state that participative decision making is dependent upon conditions and particular situations (Tannenbaum and Schmidt 1966). A somewhat cumbersome model for this contingent manner of leadership was developed by Vroom and Yetton who hoped to assist leaders decide which leadership style to choose for different types of problems (Vroom 1973). Last, Kelton and Ellison deplored the loss of power to colleges and universities due to centralization and lack of participative decision making (Kelton 1971 and Ellison 1977).

Another aspect of institutional management and leadership is that of job satisfaction. The idea of job satisfaction as a function solely of financial compensation was negated by the Hawthorne studies. Two important factors of job satisfaction are organizational climate and congruity of the organization's and employee's goals. Roth concluded that the integration of an organization's structure, management, policies and procedures all contribute to the organization's climate (Roth 1977), and Tagiuri reports that climate, although intangible, influences employee's behavior (Tagiuri 1968).

Collins concluded that employees' motivation is highest only when their goals are not in conflict with the goals of the institution (Collins 1970). Also the

findings of Segner and Britton show that redirected institutional goals result in disharmony when the redirected goals are in conflict with faculty goals (Segner and Britton 1976). Breuder and King studied the goal congruity at Brevard Community College and found that the institution's goals were not being met because students and faculty did not agree with the goals (Breuder and King 1976).

Rabin studied the perceived and the preferred goals of the administration and faculty of 68 universities. He found that the perceived goals were highly incongruent (Rabin 1974). Consequently Baker and Brownell believe that congruity between administration and faculty could be reached through participative goal setting (Baker 1972).

Utilizing Herzberg's theory of satisfiers and dissatisfiers, Thomas examined the similarities of job satisfaction among three groups of chief academic officers. He found the most common motivator among all three groups was achievement of goals. The tasks involved were not significantly related to satisfaction or dissatisfaction (Thomas 1977).

An educational management study related to motivation and institutional management effectiveness was performed by Williams in 1979. Williams, relying on Maslow's theory and the importance of need fulfillment, tried to determine the degree to which each of Maslow's categories of need were fulfilled for college and university administrators on a national scale. His

findings were:

| | Most satisfaction with | Least satisfaction with | Most important | Least important |
|---------------------------------|------------------------------|-------------------------------|------------------------------|--------------------|
| Academic Administ- rators | Security needs | Self realization needs | Self realization needs | Security needs |
| student Affairs Officers | Security needs | Self realization needs | Self realization needs | Security needs |

Both groups obviously are dissatisfied with need fulfillment on a priority basis. If Maslow's theory is adhered to, then colleges and universities must reexamine policies and procedures with an eye to change (Williams 1974).

Job satisfaction is a function of many variables, according to Berman who studied full and part-time instructors at the University of Maryland. The variables include sex, full or part-time status, marital status and the need for clearly defined goals (Berman 1979). Other factors contributing to job satisfaction are described by Medrano and Elins. Medrano found a high amount of stress associated with administrators whose roles were not clearly defined or who had multiple role expectations (Medrano 1978). Elins found the most common reason given for seeking other employment was related to job dissatisfaction rather than lack of job security (Elins 1971).

This review of the related literature, thus far, has dealt with management, first as an instrument of effectiveness in business and industry and second as an instrument of effectiveness in higher education. No

attempt has been made, however, to isolate and then reintegrate the concept of leadership at the individual level. The terms "management", "leadership" and "administration" have been utilized loosely and often-times interchangeably with one another. One of the chief purposes of this paper is to determine the relationship among these terms and will be better considered in the succeeding chapters. But perhaps one study which treats leadership as a discrete aspect of management or administration should be cited at this point.

In 1969 Glenn Schroeder tried to determine:

1. Administration's self-perceived leadership;
2. Administration's ideal leadership;
3. Responsibility, authority and delegation behaviors of leaders.

His major conclusions were:

1. Faculty expect more leadership from chairpersons than they actually get;
2. Chairpersons feel they should show more leadership;
3. Deans expect more leadership from chairpersons than do faculty.

Although there is an obvious gap between the amount of leadership deans expect and the amount that faculty expect from chairpersons, Schroeder recommends that pre- and in-service training in human relations be given chairpersons (Schroeder 1969). Later, Cloe also concluded from his studies of 55 Indiana institutions of higher education that the highest value placed on any administration characteristic was understanding human

behavior (Cloe 1973).

Reif tried to distinguish between administration and leadership functions by pointing out that administrators manage the day-to-day business of the organization while the leader was responsible for the creative and long-range planning of the organization (Reif 1977). Dykes, too, believed that the administrator's prime responsibility was in keeping the organization running (Dykes 1971).

Earlier, in 1964, Perry reviewed the available literature on executive administration behavior and arrived at 84 criteria for rating performance. Interviews of executives, administrators and trustees, showed there was consistent agreement between the two groups that in order to satisfy the 84 criteria administrators must be able to (1) make decisions, (2) be aware of interpersonal relationships and (3) be able to plan and delegate responsibilities (Perry 1964).

Virtually all researchers and authors who make use of the notion of power refer to the work of French and Raven. Citing five different power bases: (1) reward power; (2) coercive power; (3) legitimate power; (4) expert power; and (5) referent power. These authors believe that each power base is important because each has a variable effect. For example, referent power reduces the need for direct contact as the follower becomes more like the leader. On the other hand, coercive power will tend to increase the need for contact as the need for increased coercive methods become necessary

(French and Raven 1968). Utilizing this power-influence model, Bachman (1968) and Pfeffer (1981) each concluded that an understanding of power can enhance an individual's effectiveness.

One of the few trait models orientated to higher education exclusively is one created by Ringle and Savickas. These authors suggest that educational administrators who subjectively integrate past, present and future also foster optimism, continuity and accomplishment. Administrators who focus on the past are seen to be resistive to change, and those who are future oriented tend to lack purpose and stability (Ringle and Savickas 1983).

A number of recent higher education researchers have focused on behavior-model approaches. Lewis and Dahl (1976) found that academic department heads who spent more time on administration functions experienced more stress than those who only voluntarily spent less time on administrative functions.

Another behavioral study was performed by Glueck and Thorp (1974). They discovered that research professors preferred a leadership style supporting ethical behavior, assisting in research projects, communicating accurately, completely and frequently, and willing to represent the interests of the staff. They saw the ideal administrator as a facilitator who tended to the needs of the staff.

Dill (1984), after reviewing the literature on behavior models, concluded that staffing problems and

subordinate ineffectiveness appear to be the major constraints on college and university presidents' productivity.

One book which deserves mention relative to behavioral models is Leadership and Ambiguity: The American College President. (2nd ed.). This controversial study calls colleges "organized anarchies," and that the institutions and their leaderships are constrained by ambiguous objectives which are guided via a "garbage can" of decisions and solutions, solutions looking for issues (Cohen and March 1986). The relevance of this work is that it is based upon the findings of some very sound and professional research and may lend insight into the uniqueness of the environment of the educational manager and leader.

Studying the University of California system and ten campuses outside California, McCorkle and Archibald place the university within an evolving environment without a mandate to exist in the present or future. Therefore they advocate that effective leaders in a changing environment will stress creativity over constraint, continuity over crisis, initiative over conformity, and achievement over protocol (McCorkle and Archibald 1982).

Most of the recent situational models authors who study management and leadership within the higher education context base their findings on a denial, or at least partial denial, of Vroom and Yetton's "decision acceptance" and "decision quality" theory (1973).

Vroom, himself, admitted that his theory lacked applicability to higher education due to relatively high degrees of upward communications and relative lack of downward control, diversity of specialization, and individual control over type and amount of work performed (Vroom 1983).

A year earlier Taylor found that administrators in higher education tend to ignore situational factors when making decisions. While they tend to select a participatory style the majority of the time, in those instances when autocratic styles were chosen, it was without regard for situational constraints (Taylor 1982).

As described earlier transformational leadership is of a type which brings about outcomes transcending the limits of the leader and followers. Keller, while studying the management practices of a wide variety of colleges and universities across the nation, describes academic strategies as a means of going beyond the limits of traditional planning (Keller 1983).

Then in 1984 Warren Bennis called for a leadership which raises the levels of consciousness, builds meaning and inspires intent. Bennis' advocacy of transformational leadership is intended for a professionally general audience, but he is, nevertheless, a former provost and university president. Bennis says that getting from intent to reality is the job of the leader and can be accomplished through vision, creativity,

communication, persistence, consistency, and focus (Bennis 1984).

Transformational leadership, state Cameron and Ulrich, is the only way colleges and universities can survive in a world in which their constituencies are themselves undergoing radical change. The authors propose a five-step strategy for transformational leadership: create readiness, overcome resistance, articulate a vision, generate commitment, and institutionalize implementation (Cameron and Ulrich 1986).

Summing up the literature on educational management and leadership, it is clear that the field takes most of its foundation from the studies of management and leadership within business and industry. But there remains some question of whether or not a complete reliance on this foundation is warranted.

Many researchers feel that the two dimensions of consideration and structure, or some similar model of administration exists in business and industry. On the other hand some educational theorists feel that for various reasons this assumption should not be made within the context of educational administration. Hopefully this study will shed some light on the question.

It is clear that one of the primary considerations of an educational leader is human relations. This insight will be an important factor in the design of this study and also in an attempt to define leadership in Chapter III.

Later, in Chapters IV and V, the results of this

research will be examined in order to determine if concern with human relations again emerges as a chief factor within administrative behavior.

CHAPTER III

DESIGN OF THE STUDY

Definitions

One attempt to define and differentiate the administration, management and leadership roles of executives was made by Mackenzie in 1969. Mackenzie created a chart entitled the "Management Process." The foreword to his article states:

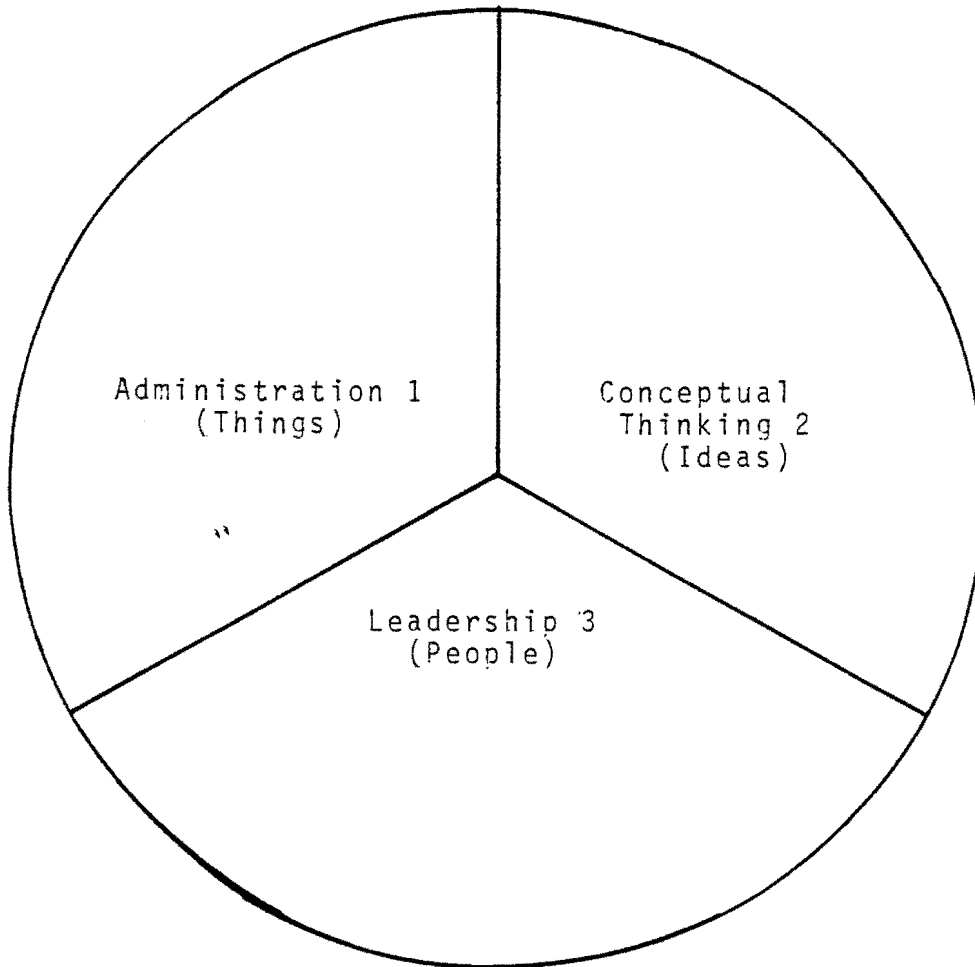
To many businessmen who are trying to keep up with management concepts, the literature must sometimes seem more confusing than enlightening. In addition to reflecting differences of opinion and semantics, it generally comes to the reader in fragments. The aim of this diagram is not to give the executive new information, but to help him put the pieces together (Mackenzie 1969).

A simplified version of Mackenzie's "Management Process" is illustrated by Figure 3. Mackenzie's background is in business. Therefore the overall behavior of the executive is termed "management." The various functions of management are in turn termed "conceptual thinking", "administration" and "leadership." His definitions of the terms are:

1. Management - achieving objectives through others;
2. Conceptual thinking -formulating ideas and notions;
3. Administration - managing the details of executive affairs;
4. Leadership - influencing people to accomplish desired objectives.

FIGURE 3

MACKENZIE'S MANAGEMENT PROCESS



Sequential Functions

1 Plan

2 Organize

3 Staff, direct and control

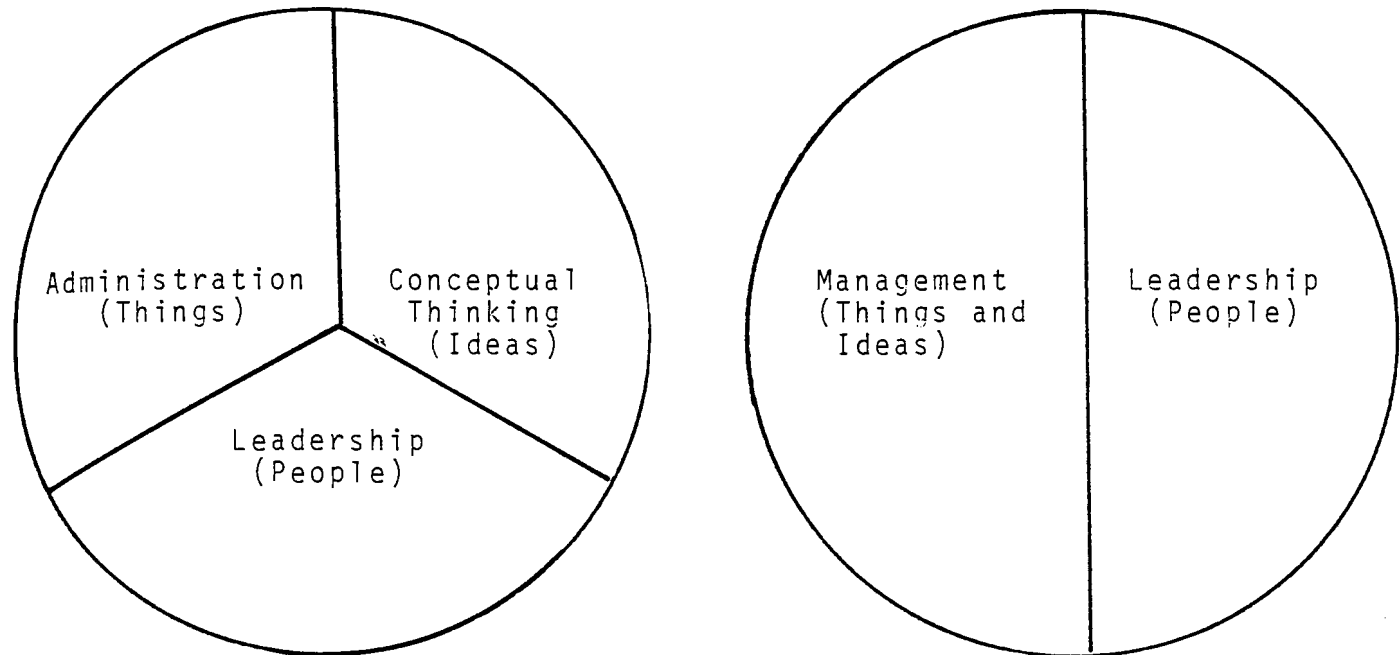
REDRAWN FROM "THE MANAGEMENT PROCESS IN 3-D"

Mackenzie further explains that when the manager is involved with conceptual thinking, he is dealing with ideas; when he is involved with leadership he is dealing with people; and when he is involved with administration he is dealing with things.

Mackenzie also states "We are not dealing here with leadership in general. We are dealing with leadership as a function of management." He views administration, too, as a function of management. Interesting enough, the Higher Education Management Institute agrees with Mackenzie on these relationships. Admittedly Mackenzie only wishes his model to assist the student to understand the roles and responsibilities of the executive, but his model is in contradiction to some of the educational writers cited. He feels leadership is a part of management, while others, e.g., Zalesnik, Enochs and Barber, feel that management and leadership are, or can be, distinct and independent.

Historically, professional educators are either administrators or teachers. In order to adapt Mackenzie's "Management Chart" to the purpose of this paper which is to determine whether or not management and leadership are the sole functional and independent factors within educational administration, a revised chart is offered in Figure 4. This adaptation, in addition to meeting more traditional definitions and functions of educational administrators, also tends to fit the management/leadership dichotomy of educational writers.

FIGURE 4

COMPARISON OF MACKENZIE'S
MANAGEMENT PROCESS MODEL TO REDEFINED MODEL

Mackenzie's Management Process

Redefined Administrative
Functions

In accordance with the revised chart and for the purposes of this paper, then, the following revised definitions are offered:

1. Administration - the overall function of the educational executive;
2. Management - that aspect or function of administration which involves the consideration of things and ideas in order to achieve goals;
3. Leadership - that aspect or function of administration which involves the consideration of people in order to achieve goals.

The definitions, as proposed, provide the advantage of distinctly differentiating between the two functions of leadership and management because, although they are both defined as functions of educational administration; each has its own independent, distinct function: management deals with things and ideas; leadership deals with people. These distinctions are consistent with the educational leadership advocates.

At this point it may be helpful to repeat the Higher Education Management Institute's definition of a work group as two or more individuals who report to a leader, plus the leader. Conversely, the following definition is presented:

The Work Group Leader: an individual who has the members of a particular work group reporting to him/her.

The Survey Instrument

The HEMI Needs Assessment Survey Questionnaire utilized in this study was developed by Likert for the Institute for Social Research at the University of

Michigan. The questions were adapted for higher education from extensive research in other organizations. The questionnaire was field tested at 26 institutions of higher education and two versions of the questionnaire were produced, the second and final version in March of 1978.

All question items were then grouped into the a priori HEMI Program Structure of Figure 1. HEMI utilizes this categorical structure when reporting needs assessment results to an institution. HEMI states that the groupings "do not, and are not intended to, represent a validated factor analytic or scaling structure," but are "in relation to categories of institutional functioning..." (HEMI brochure).

The final version of the questionnaire has been developed into eight forms, each form corresponding to the functions and language related to various levels of respondents. These levels and respective number of question items are:

| <u>LEVELS</u> | <u>NUMBER OF QUESTION ITEMS</u> |
|---------------------------------|---------------------------------|
| 1. Governing Boards | 179 |
| 2. President/Chancellor | 200 |
| 3. Vice President/Dean/Director | 190 |
| 4. Department Heads | 190 |
| 5. Faculty Members | 168 |
| 6. College/University Staff | 200 |
| 7. Students | 196 |
| 8. Committees | 168 |

Relevant to the scope of this study it is important to

note that each campus or institution was given a choice, based upon its needs and structure, as to which levels of respondents will be surveyed. For example Campus X may elect to survey department heads and faculty members only while Campus Y may feel the need for improvement at all levels and therefore may elect to survey all levels except for those which are non-existent at Campus Y.

Levels of Response

The questionnaires are designed so that a respondent will answer on a scale of 1 through 8. However, the scales are both numerical and on a verbal range such as "none" to "very much"; or "never" to "very often". The numerical scales alone are utilized for quantitative analysis. Appendix D contains both the question items and their scales as selected for this study.

Scope of the Study

The data from eight of the nine campuses of the City Colleges of Chicago will be utilized in this study regardless of levels surveyed. To assure confidentiality each campus will be identified by the first eight letters of the alphabet and subsequently by the levels surveyed.

Table 1 describes those levels of the various campuses which were consistently surveyed within each campus. The inclusion of all levels surveyed by each campus, although all the levels are not consistent, is justified because the purpose of the study is to deter-

mine if distinct, i.e., management versus leadership, competencies exist for work group leaders collectively regardless of levels surveyed.

Nevertheless, only the three consistent levels were utilized in order to simplify the design model and to avoid any questions of consistency.

TABLE 1

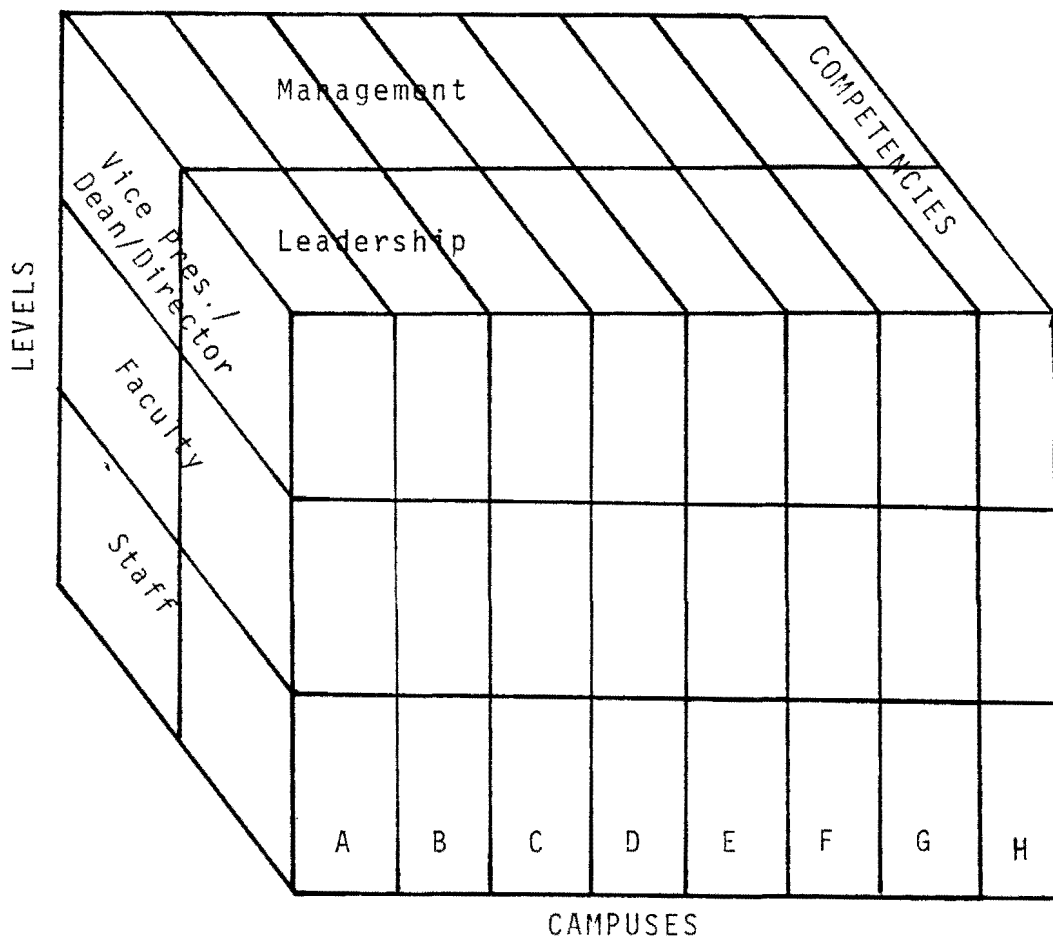
| <u>LEVELS SURVEYED</u> | <u>NUMBER OF QUESTION ITEMS</u> | |
|---------------------------------|---------------------------------|-----------------|
| | <u>ORIGINAL</u> | <u>SELECTED</u> |
| 1. Vice President/Dean/Director | 190 | 39 |
| 2. Faculty Members | 168 | 39 |
| 3. College/University Staff | 200 | 39 |

The overall scope of the study can be graphically illustrated by a three-dimensional model accounting for the eight campuses, the three levels consistently surveyed and the two competencies under consideration. This model is presented in Figure 5.

The processed data received from HEMI were in aggregate form, presented as mean scores (averages) for each question item. Initially, over 2000 subjects responding to each of the 39 selected question items were submitted to HEMI by the City Colleges of Chicago. The means of the responses to each of the individual question items reduced the total required observations of the study to 24 so that the total number of data generated for analysis is $39 \times 24 = 886$. $N = 24$, of course, represents the three levels surveyed across all eight campuses.

FIGURE 5

SCOPE OF THE STUDY AND COMPETENCIES SURVEYED



structuring The Data

A thorough screening of all question items on all three levels of questionnaires was performed in order to include only those question items which were relevant to this study. Many questions were purged because they did not evaluate the administrator but, rather, assessed physical conditions which may not have been under the control of the administration.

For example, it is often infeasible to have a gymnasium or swimming pool on a downtown urban campus. Another reason for purging certain question items was they were not asked across all levels. Last, only three respondent levels were included in the study: (1) Vice-President/Dean/Director, (2) Faculty and (3) Staff because these were the only common levels surveyed across all campuses.

After an exhaustive screening of the question items, according to the above guidelines, the relevant question items remaining for the study were:

1. To what extent does the person to whom you report represent the interests of your unit effectively to other parts of the institution?
2. To what extent does the person to whom you report maintain high standards of performance?
3. To what extent does the person to whom you report seek your opinions, suggestions and ideas?
4. To what extent is the person to whom you report willing to make changes in practices based on input from you and your colleagues?
5. To what extent does the person to whom you report involve you in making decisions related to your work?
6. To what extent does the person to whom you report

back you up in your actions?

7. To what extent does the person to whom you report give recognition for good performance?
8. To what extent does the person to whom you report strive to minimize frustrations in your work?
9. To what extent does the person to whom you report find time to listen to you?
10. To what extent does the person to whom you report communicate openly and frankly with you?
11. To what extent does the person to whom you report encourage you and your colleagues to work as a team?
12. How often do you see the behavior of the person to whom you report as friendly and supportive?
13. How well do you understand the way decisions are made at this institution?
14. To what extent does the person to whom you report involve you in developing your unit's performance standards?
15. How satisfied are you with the extent of your involvement in the planning process in your unit (department/division/school)?
16. How satisfied are you with the extent of your involvement in the preparation of the budget for your unit (department/division/school)?
17. How often do you receive feedback on your performance?
18. How satisfied are you with the way you receive feedback on your performance?
19. How effective is the person to whom you report in working with people to improve their performance?

How effective is the person to whom you report in:

20. Conducting meetings?
21. Resolving problems through negotiation?
22. Helping people with career planning?
23. To what extent does the person to whom you report establish realistic targets and deadlines?
24. To what extent does the person to whom you report delegate authority?

25. To what extent does the person to whom you report provide you with adequate information to carry out your responsibilities?
26. How adequate is the information that flows downward in this institution?
27. How adequate is the information that flows upward in this institution?
28. To what extent does the person to whom you report use a systematic approach to problem solving?
29. How adequately does the person to whom you report explore alternatives before making decisions?
30. How adequately does the person to whom you report estimate the costs and benefits of alternatives before making decisions?
31. How effective is the person to whom you report in implementing decisions?
32. To what extent are decisions made at this institution on the basis of explicit, objective criteria?
33. How clear and specific are the goals and objectives of your unit (department, division, school, etc.)?
34. To what extent are your day-to-day working responsibilities clearly defined?
35. How adequate are the resources you have for doing your work?
36. How clear and specific are your individual work goals and objectives?
37. To what extent does your unit (department/division) evaluate its own performance in relation to goals and objectives?

How effective is the person to whom you report in:

38. Managing time?
39. Using information systems and analytical techniques?

It remains now to decide what method, statistical or otherwise, should be utilized to determine if the two competencies, leadership and management, are independently and separately perceived by the respondents within

the model. Since the question items were designed for a different purpose, i.e., to measure levels of many different functions, rather than designed to measure only two defined competencies, it appears that perhaps a method could be chosen that would reduce all the responses to the question items into as few categories as reasonably acceptable and then to compare those categories to leadership and management as defined.

Selection of Method

The proposed Model in Figure 4 for educational administration offered in this chapter is both semantical and functional, resulting from arbitrary definitions of the functions of the educational administrator. In turn, the question items contained in the HEMI questionnaires were selected and categorized according to the constructed definitions of either leadership or management. The problem of selection of test for significant differences then became apparent.

Due to the nebulousness and non-distinct nature of language (semantics), it was felt that extremely powerful statistical tests for significant differences between the two categories would indeed be evident, but in addition, significant differences within each of the two categories would also be present, thus rendering the study useless.

The problem of selecting an appropriate statistical test for consistent differences in responses to the respective categorical questions which would not be

sensitive to such a degree so as to not indicate more subtle differences within each category led to the consideration of utilizing factor analytic methods. Consideration of factor analysis as the appropriate method to demonstrate that the respondents felt, either consciously or subconsciously, that each of the question items related to only one of the defined concepts of leadership or management, began with an overview of factor analysis as described by L.L. Thurstone.

Thurstone

While studying the cubic capacities (volumes) of cardboard boxes, Thurstone re-established, to his own satisfaction, that no matter what the measurement or other sub-characteristics of the boxes, three main characteristics or factors were always present -- length, width and depth. This consistent relationship of volume to length, width and depth supported his work Multiple Factor Analysis which is "concerned with methods of discovering and identifying significant categories in psychology and in other sciences. These categories or factors may be called by different names, such as 'causes,' 'faculties,' 'parameters,' 'functional unities,' 'abilities,' or 'independent measurements'" (Thurstone 1947).

Further, Thurstone differentiates the statistical problem and the factorial problem by stating "Whereas the statistical prediction problem demands merely that a good prediction shall be made, the factorial problem

demands that there shall be a meaningful interpretation of the small number of derived variables in terms of which the whole set of given variables can be comprehended" (Thurstone 1947).

In short, the major purpose of factor analysis is to condense a correlation matrix to its smallest number of factors which will account for the correlations with negligible residuals. A correlation matrix is produced by correlating each question item score with every other question item score, a pair at a time. Since the total number of question items selected for this study is 39, 39 x 39 or 1,521 computations could be performed to obtain the coefficients of correlations according to the formula: $r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} \sqrt{n(\sum y^2) - (\sum y)^2}}$

This task was accomplished utilizing the capabilities of a computer to arrive at 1,521 - 39 or 1,482 discrete coefficients of correlation. Actually only 1,482/2=741 correlations are utilized since half the correlations are duplicates.

Thurstone (1947) states that "by the usual statistical considerations the most acceptable factor matrix would then represent a reference frame that is called the principal axes of the configuration of test vectors." The principal-axis solution is that the first-factor products account for more of the variance in the correlation matrix than can be accounted for by any other factor. Other factor analytic methods are merely approximations of the principal axis solution. For this

study, the iterated principal axis method of factor analysis was chosen.

One of the major problems in factor analysis is the determination of what numbers to place in the diagonal of the correlation matrix. Ideally the communalities are to be placed there. The communality is that which the item has in common with all the other items being factor analyzed. However, this is what we are trying to determine. Therefore at the beginning of the factor analysis it must be estimated. With a large correlation matrix the effect of an incorrect estimate is much less than with a small one. Even though this matrix is fairly large at 39 x 39, the best possible estimate of the communality is desirable. Thurstone indicates that "when it is desirable to obtain a very close estimate of the communalities for a specified number of factors, the ideal procedure is to obtain the principal-axis solution to the specified number of factors and to repeat this process with adjusted communalities as determined in each trial (295-296)." Therefore the communalities in this study were determined through an iteration of the principal axis method. The communalities which were finally determined to be the best estimate are shown in Appendix A. These estimates run from 1.00 down to .77 with the majority being higher than .90.

The results of the factor analysis prior to rotation are shown in Appendix B. As expected, the first factor accounted for almost 20% of the variance. Arbitrarily, 10 factors were asked for. Theoretically, the

number of factors is equal to one less than the number of columns in the correlation matrix. Normally, the first few factors account for the vast majority of the variance, while the final ones relate so weakly that they are virtually uninterpretable. Preliminary inspection of the correlation matrix indicated that there were at least five significant factors present. Therefore, it was reasonable to expect that the actual number did not exceed ten. If the tenth factor were significant, a second factor analysis would be required with more factors requested from the computer.

Basically, factor analysis consists of two major tasks. The first is to determine the major factors which account for the variance within the matrix and the second is to rotate the arbitrary reference frame into a preferred or simplified position. This second stage is called the rotational problem.

In approaching the rotational problem, a basic decision has to be made: "Is it expected that the final factors are correlated or uncorrelated?" If it is expected that they are uncorrelated an orthogonal solution is used. On the other hand, correlated factors can be determined only through an oblique solution.

In this study, an oblique solution was requested for two reasons. First, due to the nature of the question items, it was expected that at least some of the factors would be correlated. Secondly, using the oblique solution will not distort those factors which are actually uncorrelated with the other factors. That

is, if the factor is really not correlated, the emerging factor will be orthogonal in relationship to the other factors even though an oblique solution was requested. The Promax method of rotation was used.

Promax begins with a Varimax rotation of the factors to the best orthogonal solution but then continues the rotation until the best oblique solution is achieved.

Eigenvalues

Typically, once the factors are produced, the major share of the total variance can be accounted for by a relatively small number of factors. In the present study we are asking for ten factors, but our hypothesis states that there will only be two factors produced, management and leadership. In the event more than two factors are identified, how will we determine which factors are significant to our study? "Associated with each derived factor is a quantity known as an eigenvalue, which corresponds to the equivalent number of variables which the factor represents" (Kachigan 1986).

For example, if five factors are derived and their respective eigenvalues are calculated, the resultant spread of variance could look like this:

| Factors | Eigenvalues | Variance |
|---------|-------------|----------|
| F1 | 3.5 | 70% |
| F2 | .7 | 14% |
| F3 | .6 | 12% |
| F4 | .1 | 2% |
| F5 | .1 | 2% |

The variance is calculated by multiplying the average

variance of all factors ($100\%/5 = 20\%$) by each factor eigenvalue.

It is clear from the example that 96% of the total variance is accounted for by the first three largest factors, and that the remaining two factors account for only 4% of the variance and are therefore negligible or what Kachigan calls "rubble." Eigenvalues, then, can be important in determining how many factors to retain from the analysis. Kachigan suggests the rule of thumb is to retain only the factors which have an eigenvalue of 1.00 or more. This suggestion will be followed for the purposes of this study.

Once the rotational process is accomplished, the next problem is to identify the factors. This is managed by first assuming a critical value of r . Since $n=24$, the critical value of r for this study was established at 0.50. All factor loadings less than 0.50 in value, then, are assumed to be of little or no significance and may be eliminated from further study.

Next, factors are identified with all questions items with which they correlate most highly. From the nature of the questions which correlate highly with a specific factor, the factor may be identified or named. Obviously, factor analysis becomes an art as well as a science. Regardless, this is an important step to the study, particularly when further analysis, interpretations, and recommendations in the final chapter depend almost completely upon accuracy and integrity. The significant results of the processed data and

their associated factors are described in Chapter IV.

CHAPTER IV

RESULTS OF THE STUDY

Virtually all of the mathematical and computational tasks of this study were performed by a computer programed according to the design described in Chapter III. In order to simplify the results of the processed data, the correlations which reveal $r > .50$ are stressed in this chapter and are listed in Table 3 while the results, in their entirety, are contained in Appendices A and B. However, the eigenvalues which are used to determine the significant factors of the ten requested are presented in Table 2:

Table 2
Factor Eigenvalues

| Factor # | Eigenvalues | Variance Portion | Cumulative Portion |
|----------|-------------|------------------|--------------------|
| 1 | 19.62 | 52.4% | 52.4% |
| 2 | 5.46 | 14.6% | 66.9% |
| 3 | 3.65 | 9.7% | 76.7% |
| 4 | 2.80 | 7.5% | 84.2% |
| 5 | 2.11 | 5.6% | 89.8% |
| 6 | 1.81 | 4.8% | 94.6% |
| 7 | .82 | 2.2% | 96.8% |
| 8 | .51 | 1.4% | 98.2% |
| 9 | .40 | 1.1% | 99.2% |
| 10 | .29 | .8% | 100.0% |

TABLE 3

FACTOR STRUCTURE MATRIX

| Question Items | Factors | | | | | |
|-------------------|---------|-----|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | .76 | -- | -- | .71 | .58 | .50 |
| 2 | -- | -- | -- | .82 | -- | .56 |
| 3 | -- | -- | -- | .94 | -- | -- |
| 4 | -- | -- | -- | .83 | .66 | -- |
| 5 | -- | .55 | -- | .83 | .51 | -- |
| 6 | -- | .55 | -- | .54 | .81 | -- |
| 7 | -- | -- | .68 | .54 | .79 | .54 |
| 8 | .62 | -- | .56 | .59 | .67 | -- |
| 9 | .56 | .54 | -- | -- | -- | -- |
| 10 | .63 | -- | -- | .74 | -- | -- |
| 11 | -- | -- | -- | .64 | -- | -- |
| 12 | .59 | .54 | -- | .52 | .79 | .57 |
| 13 | -- | .89 | -- | -- | -- | -- |
| 14 | .53 | .58 | -- | .65 | .51 | .75 |
| 15 | -- | .77 | -- | -- | -- | .65 |
| 16 | -- | -- | -- | -- | -- | -- |
| 17 | -- | -- | -- | .64 | -- | -- |
| 18 | -- | -- | .74 | .64 | -- | -- |
| 19 | -- | -- | .67 | .83 | .56 | .50 |
| 20 | .66 | -- | -- | -- | .93 | -- |

TABLE 3 (Continued)
 FACTOR STRUCTURE MATRIX

| Question Items | Factors | | | | | |
|-------------------|---------|-----|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 21 | -- | -- | -- | .55 | .94 | -- |
| 22 | .62 | -- | .66 | .51 | .65 | .56 |
| 23 | -- | -- | -- | .61 | -- | -- |
| 24 | -- | -- | -- | -- | .76 | .51 |
| 25 | .65 | -- | -- | -- | .60 | -- |
| 26 | -- | .90 | -- | -- | -- | -- |
| 27 | -- | .93 | -- | -- | -- | -- |
| 28 | -- | -- | -- | .53 | .52 | .53 |
| 29 | -- | .52 | -- | -- | .50 | -- |
| 30 | -- | -- | -- | .70 | .62 | .60 |
| 31 | .55 | .57 | -- | .51 | .72 | .54 |
| 32 | -- | .93 | -- | -- | -- | -- |
| 33 | .52 | .52 | -- | -- | -- | .89 |
| 34 | .80 | -- | -- | -- | -- | -- |
| 35 | -- | -- | .84 | -- | -- | -- |
| 36 | .96 | -- | -- | -- | .50 | -- |
| 37 | -- | .60 | .65 | -- | -- | -- |
| 38 | .82 | -- | -- | .57 | .81 | -- |
| 39 | -- | -- | .60 | -- | .81 | -- |

The Hypothesis

Iteration of the data narrowing the factors down to the significant six is displayed in Appendix C. While ten factors were requested, the final four of the ten are insignificant (eigenvalues <1) and are omitted from this chapter.

It is clear and obvious that the hypothesis as presented in Chapter II is not accepted nor supported by the results of the processed data. The hypothesis stated that "Management and leadership are the sole separable and independent factors involved in perceived educational administration behavior." Had this hypothesis been supported by the results of the processed data, these events would have occurred:

- (1) rather than six factors emerging, only two -- management and leadership -- would have resulted;
- (2) given two factors rather than six, each question item would have correlated with one, or both, of the two factors;
- (3) one set of question items which correlated with a common factor would as a group fit the definition of "leadership" as defined in Chapter III, and another set of question items would fit the definition of "management", also defined in Chapter III.

Since the first event did not occur, and consequently neither could its dependent events occur, the hypothesis is rejected and the results of the study must

speak for themselves.

Factorial Results

Although this study shows a clearly defined structure, it does not support the hypothesis that any specific educational administration behavior is perceived as either leadership behavior or management behavior. However, the fact that the question items correlated to only six factors is indication of the possibility that perhaps administration behavior may be somewhat simplified and understood.

This possibility would have been enhanced had each question item correlated to one and only one of the resultant factors, but such is not the case as evidenced by Appendix A. Most question items correlated to several factors which upon first inspection indicates little pattern of relationship.

In order to determine if the question items and resultant factors lend further insight into educational administration behavior, it was decided to perform some meticulous "data snooping". Perhaps an examination of the question items themselves would reveal something about the nature of the factors with which they correlated. For example, if the content of Question Item Number 1 is compared with the content of Question Item Number 8 (both correlate with Factor 1), we may interpret the questions as being related to the leader's consideration of the well-being of his/her subordinates. Question Items 9 and 10 may be interpreted similarly.

Indeed, this process was performed exhaustively in an effort to identify a common nexus within each factor. If this approach appears subjective and artful, Thurstone provides the rationale for such an approach by stating:

The exploratory nature of factor analysis is often misunderstood. Factor analysis has its principal usefulness at the borderline of science. It is naturally superseded by rational formulations in terms of the science involved. Factor analysis is useful, especially in those domains where basic and fruitful concepts are essentially lacking and where crucial experiments have been difficult to perceive.
(Thurstone 1947).

Thurstone adds that "the factorial problem demands that there shall be a meaningful interpretation of the small numbers of derived variables in terms of which the whole set of given variables can be comprehended." "Meaningful interpretation", then, may serve as the justification for identifying the factors derived from their correlated question items.

The resulting interpretations are presented in Tables 4a through 4f along with their correlations (question items have been abridged for the sake of convenience). In addition related factors have been included.

TABLE 4a

FACTOR #1 -- STRUCTURE

| <u>Question Item</u> | <u>Description</u> | <u>Weight</u> |
|----------------------|--|---------------|
| 36 | Clear individual work goals and objectives | .96 |
| 38 | Manages Time | .82 |
| 34 | Defines day to day responsibilities | .80 |
| 01 | Represents interests of unit | .76 |
| 20 | Conducts meetings | .66 |
| 25 | Provides you with adequate information | .65 |
| 10 | Communicates openly and frankly | .63 |
| 08 | Minimizes frustrations | .62 |
| | <u>Related to Factor(s):</u> | |
| Number 5 | Interpersonal Management | .47 |

TABLE 4b

FACTOR #2 -- INSTITUTIONAL COMMUNICATION

| <u>Question Item</u> | <u>Description</u> | <u>Weight</u> |
|--------------------------|---|---------------|
| 27 | Upward information | .93 |
| 32 | Decisions made on objective criteria | .93 |
| 26 | Downward information | .90 |
| 13 | Understanding decisions | .89 |
| 15 | Involvement in planning | .77 |
| 37 | Unit evaluates own performance | .60 |

Related to Factor(s):

None

TABLE 4c

FACTOR #3 -- CONCERN ABOUT PRODUCTION

| <u>Question Item</u> | <u>Description</u> | <u>Weight</u> |
|--------------------------|---|---------------|
| 35 | Resources for doing your work | .84 |
| 18 | Way you get feedback on performance | .74 |
| 7 | Recognition for good performance | .68 |
| 19 | Effective in improving peoples performance | .67 |
| 22 | Helps in career planning | .66 |
| 37 | Unit evaluates own performance | .65 |
| 39 | Uses information systems and analytic techniques | .60 |
| | <u>Related to Factor(s):</u> | |
| Number 6 | Performance Standards | .42 |

TABLE 4d

FACTOR #4 -- CONSIDERATION

| <u>Question Item</u> | <u>Description</u> | <u>Weight</u> |
|----------------------|--|---------------|
| 3 | Seeks your opinion | .94 |
| 4 | Changes based on your input | .83 |
| 5 | Involvement in decision making | .83 |
| 9 | Effective in improving peoples performance | .83 |
| 2 | High standards of performance | .82 |
| 10 | Communicates openly and frankly | .74 |
| 1 | Represents interests of group effectively | .71 |
| 30 | Estimates cost/benefits before decision | .70 |
| 14 | Involves in developing performance standards | .65 |
| 11 | Encourages to work as team | .64 |
| 17 | Feedback on performance (frequency) | .64 |
| 18 | Way feedback is given | .64 |
| 23 | Establishes realistic targets | .61 |

Related to Factor(s):

| | | |
|----------|--------------------------|-----|
| Number 5 | Interpersonal Management | .45 |
| Number 6 | Performance Standards | .41 |

TABLE 4e

FACTOR #5 -- INTERPERSONAL MANAGEMENT

| <u>Question Item</u> | <u>Description</u> | <u>Weight</u> |
|----------------------|---|---------------|
| 21 | Resolving problems through negotiation | .94 |
| 20 | Conducting meetings | .93 |
| 6 | Backs up your actions | .81 |
| 38 | Manages time | .81 |
| 39 | Using information systems and analytical technology | .81 |
| 7 | Recognition for good performance | .79 |
| 12 | Friendly and supportive boss | .79 |
| 24 | Delegates authority | .76 |
| 31 | Effective in implementing decisions | .72 |
| 8 | Minimizes frustrations | .67 |
| 4 | Willing to make changes based input from staff | .66 |
| 2 | Helps people with career planning | .64 |
| 30 | Estimates costs/benefits before decisions | .62 |
| 25 | Provides adequate information | .60 |
| | <u>Related to Factor(s)</u> | |
| Number 1 | Structure | .47 |
| Number 4 | Consideration | .45 |

TABLE 4f

FACTOR #6 -- PERFORMANCE STANDARDS

| <u>Question Item</u> | <u>Description</u> | <u>Weight</u> |
|--------------------------|---|---------------|
| 33 | Specific goals of unit | .89 |
| 37 | Evaluates performance of unit | .80 |
| 14 | Involves you in performance standards | .75 |
| 15 | Involves you in planning | .65 |
| 30 | Estimates cost/benefits before decision | .60 |

Related to Factor(s):

| | | |
|----------|--------------------------|-----|
| Number 3 | Concern About Production | .42 |
| Number 4 | Consideration | .41 |

Factor Identification

The semantical approach utilized in identification of the factors required (1) condensation of each question item and (2) determining an appropriate label or tag from the condensed question items within each factor. These steps and the resulting identification labels of the six factors are presented in Tables 4a through 4f. In summary, the factors are identified as:

| Factor # | Description or Label |
|----------|-----------------------------|
| 1. | Structure |
| 2. | Institutional Communication |
| 3. | Concern about Production |
| 4. | Consideration |
| 5. | Interpersonal Management |
| 6. | Performance Standards |

Factor Interpretations

Factor #1, which accounts for more than half (50%) of the variance, exhibits a very obvious and clear planning component. Managers rated high on Factor # 1 have developed clear and specific individual work goals and objectives for their units. This particular characteristic accounts for 92% of the variance within this factor.

In addition, supervisors rated high on Factor #1 are effective in managing time within their units and are clear in defining their subordinates' day-to-day working responsibilities. The planning abilities of these managers are also exhibited in the fact that they

are skillful in conducting meetings. Overall, the prevalence of planning aspects of some of the items loading high on Factor #1 might tempt one to label this particular factor "Planning." However, there is also a communication component within this factor as evidenced and represented by Question Items #25, #10 and #1. Consequently, this factor must represent more than planning alone.

Fleishman has indicated that planning is the most important component within the factor he identified as "Structure." In addition to planning he states that individuals scoring high on this structure factor also direct their groups' activities by communicating information. Thus, managers who score high on Structure would provide their subordinates with adequate information to carry out their objectives and responsibilities (Question Item #25) and would also communicate openly and frankly with their subordinates (Fleishman 1969).

There is a justification, too, for stating that managers who rate high in Structure also tend to effectively represent the interests of their units to other parts of the organization (Question Item #1). In a study of department heads in hospitals it was found that those who scored high on Structure had less conflict between their departments and other departments (Oaklander and Fleishman 1964). It appears that effectively representing ones unit to other departments results in greater inner harmony.

Due to the similarities found between Factor #1 and

Fleishman's Structure, it was determined to retain the term and identify Factor #1 as "Structure." The fact that Question Item #8 is moderately related to Factor #1 seems to be due to the managers' abilities to plan and communicate, resulting in minimizing frustrations within their subordinates' work places.

Factor #2, accounting for 14.6% of the variance, appears to be strongly related to how well managers assist in the upward (Question Item #27) and downward (Question Item #26) flow of information. The difficult part of describing this factor is explaining the strong relationship between the factor and certain question items: the perception of subordinates that decisions are made on objective criteria (Question Item #32); that the subordinates understand how decisions are made (Question Item #13); and that they feel they are involved in their units' planning (Question Item #15). However, Harrison (1985) and Wheelless, et al, (1983) found that good communication with their superiors is needed by subordinates to feel that they participate in decision making. In other words, when managers properly convey information upward and downward, they enable their subordinates to understand why decisions were made and have a greater feeling that they participated in the planning. It also appears that those subordinates under managers with positive institutional communications skills feel that their departments are better able to evaluate their own performances.

Because upward and downward communications load so

heavily on this factor and because the remainder of the question items relate to and are dependent upon communications, Factor #2 is identified as "Interpersonal Communications."

Factor #3 appears related to performance. Additionally, the managers who rated high on this factor are concerned that their subordinates receive the necessary resources for effectively completing their work (Question Item #35). It can also be seen that this factor is somewhat related to Factor #6 ($r = .42$) which concerns performance standards. This concern for performance, performance standards and resources is most characteristic of Blake and Mouton's Concern for Production factor (Blake and Mouton 1968). Factor #3, then, can be identified as "Concern for Production."

Factor #4 attributes 88% of its variance to Question Item #3 which deals with the degree to which managers seek the opinions, suggestions and ideas of their subordinates. In addition, managers who scored high on this factor make changes based upon their subordinates input (Question Item #4) and involve their subordinates in decision making (Question Item #5).

Fleishman has defined his Consideration factor as . . . the extent to which an individual is likely to have job relationships with subordinates characterized by mutual trust, respect for their ideas, consideration of their feelings, and a certain warmth between the individual and them (Fleishman 1969).

The similarities between Fleishman's Consideration factor and Factor #4 provides the rationale for labeling Factor #4, "Consideration."

Factor #5 relates to both Structure ($r = .47$) and Consideration ($r = .45$). That is, while it is a separate and discrete factor, managers who score high on Structure and Consideration will tend to score high on Factor #5 and vice versa. Theoretically, individuals scoring high on this factor may approach perfection as managers. They are analytic planners (Question Item #39) while still being seen as friendly and supportive by their subordinates (Question Item #12).

Additionally, Factor #5 administrators are able to resolve problems through negotiation (Question Item #21) and like administrators who score high on Structure, are good at conducting meetings (Question Item #20), managing time (Question Item #38), minimizing frustration (Question Item #8), and providing their subordinates with adequate information (Question Item #25). Further, like administrators who score high on Consideration, Factor #5 administrators are willing to make changes based upon input from staff (Question Item #4), are helpful to their staff in career planning (Question Item #2), perform cost/benefits analyses before making decisions (Question Item #30). Moreover, they are unique in their willingness to back up their subordinates actions (Question Item #6), providing recognition for good performance (Question Item #7), delegating authority (Question Item #24), and effectively implementing decisions (Question Item #31). Perhaps because this factor accounts for only 5.6% of the variance and at the same time has a high number of question items loading on it,

some difficulty is experienced in identifying it. But, since it contains many of the Structure and Consideration elements as described by Fleishman in 1955, it can be identified with the hybrid tag of "Interpersonal Management."

The sixth and final significant factor appears to relate to defining clear and specific goals (Question Item #33) by which to evaluate the performance of the unit (Question Item #37). Administrators who score high on this factor involve their subordinates in the development of performance standards (Question Item #14) and in planning (Question Item #15) while keeping an eye to the cost/benefits of the process.

Bass found, interestingly enough, that the level of performance standards and degree of task orientation displayed by managers was directly proportional to the level of management studied (Bass 1967). This, of course, implies that top-level managers will employ the highest standards and front-line supervisors the lowest. Since this study does not discriminate between the various levels of administration within the community college district surveyed, Factor #6 was assigned the general tag, "Performance Standards."

The descriptions, or labels, are again somewhat arbitrary due to the nature of language. For example, the description assigned to Factor 1 is "structure". An examination of the correlating question items could just as easily have resulted in assigning the label of "planning" to Factor 1. The decision was made to utilize

those labels commonly found in related literature and research. In this example the term "structure" was borrowed from the Ohio State Studies.

Regardless of the method of identification of factors employed, the results of the factor analysis speak for themselves: there are six significant factors, not two, and it does appear that perceived educational administration behavior does lend itself to examination. The fact that the management vs. leadership hypothesis was not supported does not diminish the significance of the study. Perhaps, too, further analysis, contained in Chapter V, will provide direction for new approaches to the management vs. leadership problem.

CHAPTER V

ANALYSIS AND INTERPRETATIONS, CONCLUSIONS, RECOMMENDATIONS AND SUMMARY

It is doubtful that this study or those performed in the very near future will quiet the management vs. leadership issue. Although models, such as R. Alec Mackenzie's, are offered and often accepted as operational tools used to better understand, predict and control administration behavior in the schools, most of the research cited in Chapter II did not result in such simplistic outcomes. Further analysis of the results of this study may nevertheless maintain the hope for such a model.

Analysis and Interpretations

Since higher order factor analysis did not produce the hypothetical management and leadership model, it must be tentatively assumed that either the model is in error or that the study is not valid.

First assuming that this study is valid, it may be asked what is wrong with the model? In this case two separable and independent factors -- leadership and management -- were hypothesized, but mathematical processing produced six factors. If however, one were to divide the six factors into two groups, could one group

be described as management behavior and the other as leadership behavior?

As a trial, suppose Factors 1, 2, 3 and 6 formed one group and Factors 4 and 5 formed the second group accordingly:

| Group A (Management) | Group B (Leadership) |
|-------------------------------------|---------------------------------------|
| Factor 1 - Structure | Factor 4 -Consideration |
| Factor 2 - Institutional Management | Factor 5 -Interpersonal Communication |
| Factor 3 - Concern about Production | |
| Factor 6 - Performance Standards | |

The fact that the factors are divided into one group of four factors and a second group of two factors need not be relevant here; a configuration of 1 and 5 or 2 and 4 or 3 and 3 factors may just as well have occurred.

If, now, Group A is described as "management" and Group B is described as "leadership", the tentative definitions offered in Chapter III for these terms is in error. For example, Factor 6, Performance Standards, relates to people and their behavior which according to the tentative definitions would be a leadership function not a management function. However, the act of defining, writing, issuing (via memo) and evaluating performance standards may all be performed without any real meaningful personal interaction, in which case "Performance Standards" becomes more of a management function.

The implication here is that people may be either

managed or led to perform. Contrast the behavior of a prison warden ordering prisoners to their cells with the behavior of an elected official wishing to get his constituency to pass a public referendum. The desired behavior of the former group is managed while the behavior of the latter is inspired. Further, one may conclude that it is not what an administrator does, it is how it is done that differentiates management from leadership.

The notion of how an administrator motivates his work group to performance and thus effecting productivity is consistent with the research findings of the last 25 years which were cited in Chapter II. If such is the case, and the research is overwhelming, the validity of the HEMI questionnaire for use in this study may be somewhat suspect. The legitimacy of what community college administrators do is not as relevant as how they do it.

The HEMI scales for participants' responses are on a scale of 1 to 8 measuring frequency or amount of work-group leader behaviors indicating how much of what the leader does in performance of his administrative tasks.

The possible fallacy inherent in quantified answers to qualifying questions can be illustrated by an example:

Question Item Number 9 asks, "To what extent does the person to whom you report find time to listen to you?" The response scale ranges, on a continuum of 1 to 8, from "very little" to "very great". Should an office

administrator supervising 25 employees and scoring high on such a scale by all employees be rated a good administrator? One might ask, "What else does he have time to do?" On the contrary, the supervisor, due to the large number of employees involved, may not score well on any of the question items except those related to time management!

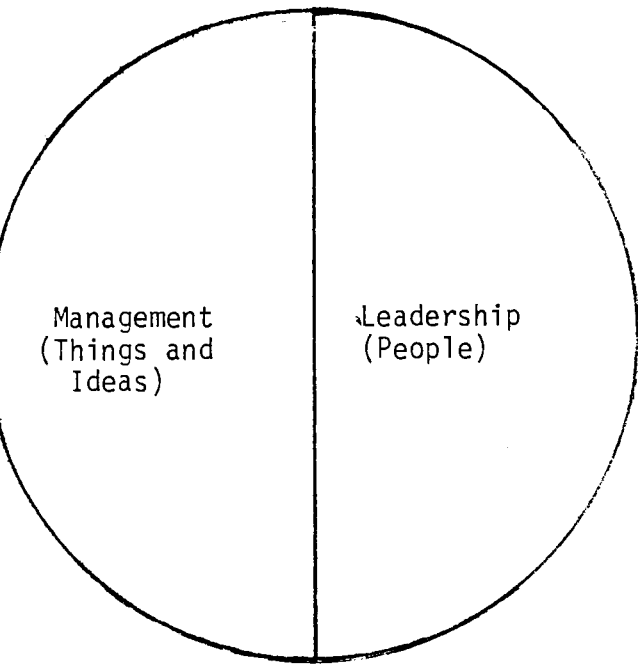
Conclusions

The validity of the HEMI questionnaire is not questioned here, only the validity of the questionnaire as applied to this study. This point is made under the section "Recommendations" later in this chapter. Notwithstanding the validity of this questionnaire relative to this study, however, the questionnaire was demonstrated valid for its original purpose by HEMI and six factors did emerge from the data provided from a multi-campus community college system. The high correlations between these factors -- "Structure," "Institutional Communication," "Concern about Production," "Consideration," "Interpersonal Management," and "Performance Standards" -- and certain question items indicate that the study is of some importance.

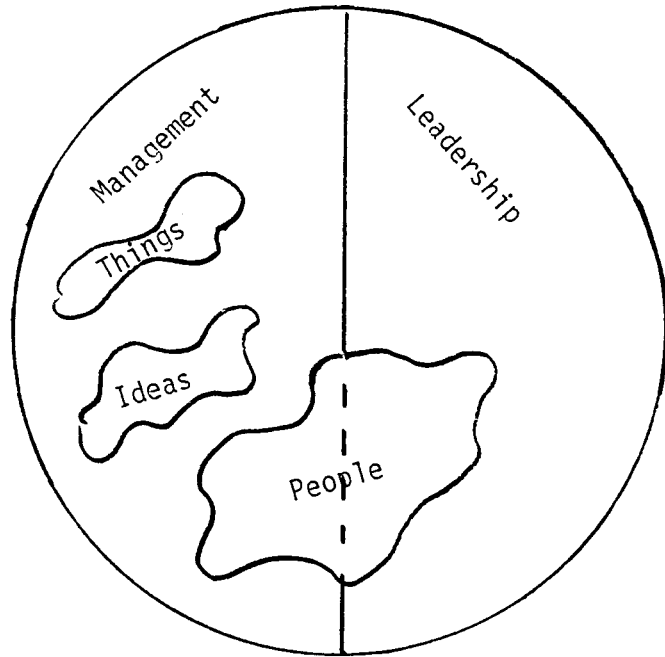
Returning to Mackenzie's model, it is apparent that things and ideas can only be dealt with through management, never leadership. In addition if one accepts the nature of the factors derived through this study, then people may be either managed or led. This analysis would produce a third possible model presented in Figure

FIGURE 6

RESTRUCTURED MANAGEMENT/LEADERSHIP MODEL



Hypothesized Model
(Unsupported By Study)



Restructured Hypothesized Model

6. This graphic illustrates:

1. Things are managed
2. Ideas are managed
3. People may be managed
4. People may be led
5. People may be both managed and led.

These conclusions, of course, require testing and will be discussed further under the next section, "Recommendations".

Recommendations

Although the hypothesis of this study was rejected on the basis of factor analytic theory and process, the findings indicate that a revision of the hypothesis may prove fruitful if tested. The nature of educational administration suggests a need for confirmed research through which we may gain more insight into the functions of the school administrator. It is therefore proposed that a similar but redesigned research project be performed according to the following recommendations:

1. A hypothesis be posited that takes into consideration the possibility that people may be either managed, or led, or both;
2. An assumption be made that things and ideas may only be managed, not led, and therefore need not be studied within the scope of this design;
3. The terms administrator, management and leadership be redefined;
4. A survey questionnaire be created which tends to reveal how a school administrator performs certain tasks with others rather than how

much of what;

5. The questionnaire be tested for both validity and reliability;
6. The concept of administrator as work-group leader be maintained in order that the various levels of administration of the population surveyed be adequately represented;
7. The definitions and hypothesis offered be constructed in such a way that meaningful conclusions be probable;
8. A new model for educational administration be accepted by the educational community which includes qualified functional definitions.

It is further recommended that the findings of this research project be integrated into the management and educational administration research which has been performed over the last 25 years. The outcome of this recommendation could result in unified theory, universal definitions and accepted functions of the effective school administrator.

Summary

The dichotomy on the efficiency of management vs. the effectiveness of leadership within the school administration community has caused many educators to question the theory that management and leadership are independent, separable competencies.

A review of the literature and related research from both the business and educational communities reveals that little has been done comparing management and leadership within higher education. A functional model of management, offered by R. Alec Mackenzie, was modified to fit educational administration functions. In order to test the model a study was designed

utilizing data gathered from a management study performed by the Higher Education Management Institute (HEMI) for the nine campuses of the City Colleges of Chicago, a multicampus urban community college system.

The hypothesis, that management and leadership, as defined, are independent and separable competencies among the work-group leaders within this community college system was stated. It was anticipated that the method of factor analysis performed on the data obtained from the HEMI management survey would result in two high-order factors which in turn would fit the model's definitions of management and leadership.

Six factors, rather than two, emerged as significant. Therefore the hypothesis was not supported and consequently was rejected. However an attempt to identify the six factors resulted in the realization that it is possible that a new, remodified model could be created and tested. This recommendation, to test the new model, and corollary recommendations were offered along with the suggestions that any conclusive findings be integrated into the cumulative body of related knowledge gleaned over the last 25 years.

The three conclusions arrived at in this study are: (1) that administrative behavior may be factor analyzed; (2) there are at least six administrative competencies indicated by factor analysis; and (3) while management may be defined as the administrator's involvement with things and ideas, both management and leadership may involve the administrator with people.

It is possible that a model of educational administration behavior based upon these conclusions may be created and tested resulting in a more unified and integrated theory of administrative competencies and behavior.

REFERENCES

- Anderson, D. G., Phillips, J. R., and Kaible, N. 1985. Revitalizing Large Companies. Work. Pap. Cambridge, MA: Massachusetts Institution of Technology, 1-35.
- Argyris, C. 1957. Personality and Organization: The Conflict Between The System and The Individual. New York: Harper And Row.
- Auerbach, J. 1984. The Now and Future Business Corporation. Work. Pap. Boston, MA: President & Followers, Harvard College.
- Bachman, J. G. 1968. Faculty satisfaction and the dean's influence: An organizational study of twelve liberal arts colleges. Journal of Applied Psychology, 52, 55-61.
- Bales, R. F. 1950. Interaction Process Analysis. Cambridge, MA: Addison-Wesley.
- Baker, G. A., and Brownell, R. L. 1972. Participative goal setting: A synthesis of individual and institutional purpose. Eric Document Reproduction Service No. ED067073.
- Barber, J. D. 1972. The Presidential Character: Predicting Performance In The Whitehouse. Englewood Cliffs, NJ: Prentice-Hall.
- Bass, B. M. 1967. Social behavior and the orientation inventory: A review. Psychological Bulletin, 68, 260-292.
- Bass, B. M. 1985. Leadership and Performance Beyond Expectations. New York: Free Press.
- Beer, M. 1980. Organization Change and Development: A Systems View. Santa Monica, CA: Goodyear, 339.
- Beer, M., and Walton, A. E. 1987. Organization change and development. Annual Review of Psychology, 38. Palo Alto, CA: Annual Reviews, Inc., 339-367.
- Bennis, W. 1984. Transformative power and leadership. Leadership and Organizational Culture: New Perspectives on Administrative Theory and Practice. T. Sergiovanni and J. E. Corbally, eds. Urbana, IL: University of Illinois Press, 64-71.
- Bennis, W., and Nanus, B. 1985. Leaders. New York: Harper & Row, 95-214.

- Berman, M. R. 1979. A comparative study of job satisfaction and role conflict in men and women, full and part-time faculty at the University of Maryland, College Park Campus. Ph.D. diss., University of Maryland.
- Blake, R. R., and J. S. Mouton. 1968. The Managerial Grid. Houston, TX: Gulf Publishing Company, 8-12.
- Bowen, H. R. 1973. Holding colleges accountable. The Chronicle Of Higher Education, March 12.
- Breuder, R. I., and King, M. C. 1976-77. Institutional goals in planning. Community and Junior College Journal, December-January, 47.
- Burke, W. W. 1982. Organization Development, Principles and Practices. Boston/Toronto: Little, Brown, 402 pp.
- Burke, W. W. 1985. Leadership as Empowering Others. New York: W. Warner Burke Associates, 1-31.
- Burns, J. M. 1978. Leadership. New York: Harper & Row, 20.
- Cameron, K. S. 1978. Measuring organizational effectiveness in institutions of higher education. Administrative Science Quarterly, 23, December, 604-632.
- Cameron, K. S., and Ulrich, D. O. 1986. Transformational leadership in colleges and universities. Higher Education: Handbook of Theory and Research, 2, J. C. Smart, ed. New York: Agathon, 1-42.
- Carlisle, H. M. 1975. University administration and change process. Phi Kappa Phi Journal, Fall, 26-29.
- Carnegie Commission On Higher Education. 1972. Reform On Campus. New York: McGraw-Hill.
- Cartwright, D. Achieving change in people. 1961. The Planning Of Change. W. Bennis, et al., eds., Chicago, IL: Holt, Rhinehart, Winston, 698.
- "City Colleges of Chicago Fact Sheet." 1983. Prepared By The Office of Public Information, City Colleges of Chicago.
- Cloe, L. E. 1973. Administrative competencies needed in academic administrative positions in institutions of higher education in the State of Indiana. Ph.D. diss., Indiana University.

- Cohen, M. D., and March, J. G. 1986. Leadership and Ambiguity: The American College President. Boston, MA: Harvard Business School Press, 290 pp.
- Collins, R. W. 1970. Management by objectives: Advantages, problems, implications for community colleges. Unpublished paper, University Of California At Los Angeles.
- Dill, D. D. 1984. The nature of administrative behavior in higher education. Educational Administrative Quarterly, 20 (3), 69-99.
- Dykes, A. R. 1981. University presidents can influence public policy. Educational Record, Winter, 25-27.
- Elins, J. J. 1971. Factors affecting attitudes and morale in relation to job security and job satisfaction for administrators below the rank of dean, not possessing academic rank in 20 private and independent insitutions of higher education. Ph.D. diss., Fordham University.
- Ellison, N. M. 1977. A personal perspective on some challenges facing Ohio's two-year colleges. Paper issued by the Ohio Association Of Two Year Colleges, 7.
- Enochs, J. C. 1981. Up from management. Phi Delta Kappa, November, 175-178.
- Fayol, H. 1949. General and Industrial Management. London: Pitman.
- Fiedler, F. E. 1964. A contingency model of leadership effectiveness. Advances in Experimental Social Psychology, L. Berkowitz, ed., New york: Academic.
- Fiedler, F. E. 1972. Personality, motivational systems, and behavior of high and low LPC persons. Human Relations, 25, 391-412.
- Fiedler, F. E., and M. M. Chemers. 1974. Leadership and Effective Management. Glenview, IL: Scott, Foresman and Company, 5-7.
- Fiedler, F. E. 1986. The contribution of cognitive resources and behavior to leadership performance. Changing Conceptions of Leadership, Grauman and Moseovici, (eds.). New York: Springer-Verlag.
- Fiedler, F. E., and J. E. Garcia. 1987. New Approaches to Leadership: Cognitive Resources and Organizational Performance. New York: Wiley, 1987.
- Fleishman, E. A. 1969. Leadership Opinion Questionnaire (LOQ): Examiners Manual. Chicago: Science Research Associates.

- Fleishman, E. A., and Bass, A. (eds.). 1961. Studies in Personnel and Industrial Psychology. Homewood, IL: The Dorsey Press, 1961, p. 317.
- Fleishman, E. A., and E. F. Harris. 1962. Patterns of leadership behavior related to employee grievances and turnover. Personnel Psychology, 15, Spring, 43-56.
- Freeman, R. E. 1984. Strategic Management: A Stakeholder Approach. Boston, MA: Pitman, 276 pp.
- French, J. R. P., Jr., and Raven, B. 1968. The bases of social power. Group Dynamics: Research and Theory (3rd ed.). D. Cartwright and A. Zander, eds., New York: Harper and Row, 607-623.
- Graen, G., and Scadura, T. A. 1987. Toward a psychology of dyadic organizing. Research in Organizational Behavior, 9, 175-208.
- Glueck, W. F., and Thorp, C. D. 1974. The role of the academic administrator in research professors' satisfaction and productivity. Education Administration Quarterly, 10, 72-90.
- Hammer, T. H., and Turk, J. M. 1987. Organizational determinants of leader behavior and authority. Journal of Applied Psychology, 72, No. 4, 674-82.
- Harrison, T. M. 1985. Communication and participative decision making: An exploratory study. Personnel Psychology, 38, (1), 93-116.
- Hartmark, L. 1975. Accountability, efficiency, and effectiveness in the State University Of New York. Albany, NY: Comparative Development Studies Center.
- Hersey, P., and K. Blanchard. 1982. Management of Organizational Behavior (4th Edition). Englewood Cliffs, NJ: Prentice-Hall, 152.
- Herzberg, F. 1966. Work And The Nature Of Man. New York: World Publishing Company.
- House, R. J., and Singh, J. V. 1987. Organizational behavior: Some new directions for I/O Psychology. Annual Review of Psychology, 38. Palo Alto, CA: Annual Reviews, Inc.
- House, R. J. 1985. Research contrasting the behavior and effect of reputed charismatic versus reputed non-charismatic U. S. presidents. Presented at the Annual Meeting of the Administrative Science Association, Montreal, Canada.

- Howell, J. M. 1985. A laboratory study of charismatic leadership. Presented at the Annual Meeting of Academic Management, San Diego, CA.
- Hunt, J. G., and Osborn, R. N. 1982. Toward a macro-oriented model of leadership: An odyssey. Leadership: Beyond Establishment Views. Hunt, J. B., Selcaraan, V., and Schriesheim, C. A., eds. Carbondale, IL: Southern Illinois University Press.
- Hushaw, J. R. 1977. Management climate in selected Southern California community colleges based on Likert's profile of a college. Ph.D. diss., University of Southern California.
- Hyatt, S. A. 1969. A behavioral study of management and leadership in higher education. Ph.D. diss., Ohio State University.
- Kachigan, S. K. 1986. Statistical Analysis. New York: Radius Pres, Chapter 15.
- Kanter, R. M. 1983. The Change Masters: Innovation and Entrepreneurship in the American Corporation. New York: Simon and Schuster, 432 pp.
- Katz, D., and Kahn, R. L. 1966. The Social Psychology of Organizing. New York: Wiley, 838 pp.
- Keller, G. 1983. Academic Strategy: The Management Revolution in American Higher Education. Baltimore, MD: Johns Hopkins Universty Press, 177 pp.
- Kipps, M. J., and Rinnander, E. 1976. Governance: Sources and information. New Directions For Community Colleges, Summer, 75-92.
- Lewis, D. R., and Dahl, T. 1976 Time management in higher education administratiion: A case study. Higher Education, 5, 49-66.
- Lozowski, S. W. J., and Doherty, M. L. 1989. Integration of climate and leadership: Examination of a neglected issue. Journal of Applied Psychology, 4, 546-53.
- Latham, V. M. 1987. Task type and group motivation: Implications for a behavioral approach to leadership in small groups. Small Group Behavior, 18, No. 1, February, 56-71.
- Lawrence, P. R., and Lorsch, J. W. 1967. Organizations and Environment: Managing Differentiation and Integration. Homewood, IL: Irwin, 279 pp.
- Likert, R. 1961. New Patterns Of Management. New York: McGraw-Hill.

- Likert, R. 1967. The Human Organization: Its Management And Value. New York: McGraw-Hill.
- Litwin, G. H., and Stringer, R. A. 1968. Motivation and Organizational Climate. Boston, MA: Harvard University, Graduate School of Business Administration.
- Mackenzie, R. A. 1969. The management process in 3-D. Harvard Business Review, November-December, 80-87.
- Maslow, A. H. 1962. Toward A Psychology Of Being. New York: Van Hostrand.
- Master Plan For The City Colleges of Chicago. 1974. Prepared by Davis MacConnell Ralson, a division of Westinghouse Learning Corporation, Sunnvale, CA, 21-30.
- McCorkle, C. O., and Archibald, S. O. 1982. Management and Leadership in Higher Education: Applying Modern Techniques of Planning, Resource Management, and Evaluation. San Francisco, CA: Jossey-Bass, 229 pp.
- McGregor, D. 1960. The Human Side Of Enterprise. New York: McGraw-Hill.
- Medrano, E. 1978. An exploratory examination of role conflict, role ambiguity and job related tension experienced by selected non-academic higher education middle managers. Ph.D. diss., University Of Houston.
- Meeth, R. L. 1974. Quality Education For Less Money. San Francisco, CA: Jossey-Bass.
- Oaklander, H., and Fleishman, E. A. 1964. Patterns of leadership related to organizational stress in hospital settings. Administrative Science Quarterly, 8, 520-532.
- Perry, R. R. 1964. Appraisal of criteria for evaluation of executive administrative performance in public higher education. Ph.D. diss., University Of Toledo.
- Peterson, M. W., and Mets, L. A., eds. 1987. Key Resources on Higher Education Governance, Management, and Leadership. San Fransisco, CA: Jossey-Bass, Inc., 3.
- Pfeffer, J. 1981. Power in Organizations. Marshfield, MA: Pitman, 370 pp.
- Pfeffer, J., and G. R. Salancik. 1978. The External Control of Organizations: A Resource Dependence Perspective. New York: Harper and Row.

- Porras, J. I. 1985. Organizational Development Research Paper #802, March.
- Rabin, K. H. 1974. Goal perceptions and preferences of faculty and administrators at five types of higher educational institutions. Ph.D. diss., George Peabody Teachers College.
- Reddin, W. J. 1967. The 3-D management style theory. Training and Development Journal, 21, 8-17.
- Reif, F. 1977. Where are the leaders in higher education? Education Digest, 42, May, 25-27.
- Ringle, P. M., and Savickas, M. L. 1983. Administrative leadership: planning and time perspective. Journal of Higher Education, 54, (6), 649-661.
- Roberts, N., and King, P. The Stakeholder Audit: A Key Political Tool in the Change Process. Draft.
- Romney, L. 1978. Measures of institutional goal achievement. Boulder, CO: National Center For Higher Education Management Systems.
- Roth, S. A. 1977. An investigation to determine what combination of organizational climate facets are the most effective predictors of specific dimensions of job satisfaction among selected Connecticut school principals. Ph.D. diss., University Of Connecticut.
- Rubenstein, A. H., and Haberstroh, C. J. 1966. Some Theories Of Organizations. Homewood, IL: Irwin.
- Sample, J. A., and T. R. Wilson. 1965. Leader behavior, group productivity, and rating of least preferred coworker. Journal of Personality and Social Psychology, 13, 266-70.
- Sashkin, M. 1985. Visionary Leadership: A New Look at Executive Leadership. Washinton, DC: Office of Resource Improvement, 1-9.
- Schroeder, G. B. 1969. Leadership behavior of department chairmen in selected state institutions of higher education. Ph.D. diss., University Of New Mexico.
- Scigliano, J. A. 1971. A comparative analysis of administrative structure and performance of community junior colleges in the State Of Florida. Ph.D. diss., University Of Florida.
- Segner, K. B., and Britton, G. M. 1976. M.B.O. in the community college. New Directions For Community Colleges, Spring, 39-46.

- Shartle, C. L. 1956. Executive Performance and Leadership. Englewood Cliffs, NJ: Prentice-Hall.
- Shaw, M. E. 1973. Scaling group tasks: A method for dimensional analysis. JSAS Catalogue of Selected Documents in Psychology, 3, 8.
- Smith, B. J. 1982. An initial test of a theory of charismatic leadership based on responses of subordinates. Ph.D. diss., University of Toronto.
- Stephens, J. 1967. The multi-county regional educational service agency in Iowa, Part III, summary report.
- Stewart, R. 1982. Choices for the Manager. Englewood Cliffs, NJ: Prentice-Hall.
- Stogdill, R. M., and Coons, A. E. 1957. Leader behavior: Its description and measurement. Research Monograph No. 88. Ohio State University.
- Sullins, W. R. 1981. Leadership in the 1980's. Community And Junior College Journal, October, 27-29.
- Tagiuri, R. 1968. The concept of organizational climate. Organizational Climate: Exploration Of A Concept, R. Tagiuri and G. H. Litwin, eds., Boston, MA: Harvard University Press.
- Tannenbaum, R., and Schmidt, W. H. 1966. How to choose a leadership pattern. Harvard Business Review, July and August.
- Taylor, A. L. 1982. Decision-process behaviors of academic managers. Research in Higher Education, 16, 156-173.
- Taylor, F. W. 1911. The Principals Of Scientific Management. New York: Harper.
- Thomas, S. C. 1977. An application of Herzberg's two-factor theory of job attitudes to selected community college administrative roles. Ph.D. diss., University Of Florida.
- Thompson, V. 1969. The Innovative Organizations And Human Behavior: Focus On Schools. F. Carver and T. Sergiovanni, eds., New York: McGraw-Hill, 392-400.
- Thurstone, L. L. 1947. Multiple-factor Analysis: A Development And Expansion Of The Vectors Of The Mind. University of Chicago Press.
- Vroom, V. H. 1983. Leaders and leadership in academe. Review of Higher Education, 6, 367-386.

- Vroom, V. H., and Yetton, P. W. 1973. Leadership And Decision Making. Pittsburg, PA: University of Pittsburg Press, 220 pp.
- Vecchio, R. P. 1987. Situational leadership theory: An examination of a prescriptive theory. Journal of Applied Psychology, 72, No. 3, 444-451.
- Weick, K. E. 1974. Middle range theories of social systems. Behavioral Science, 356-367.
- Wheless, V. E., Wheless, L. R., and Howard, R. D. 1983. An analysis of the contribution of participative decision making and communication with upervisors as predictors of job satisfaction. Research in Higher Education, 18, 145-160.
- Williams, T. E. 1979. A national study of need fulfillment satisfaction and importance for selected academic and student affairs administrators of institutions of higher education. The Florida State University.
- Yukl, G. A., and Van Fleet, D. D. 1982. Cross-situational multi-method research on military leader effectiveness. Organizational Behavior and Human Performance, 30, 87-108.
- Zaleznik, A. 1977. Managers and leaders: Are they different? Harvard Business Review. May-June, 67-78.

APPENDIX A

APPENDIX A

COMMUNALITIES FOR TWELVE ITERATIONS
TEN FACTORS TO BE RETAINED

| | Question Item Numbers | | | | | | | | | |
|-------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Iter- | | | | | | | | | | |
| ation | | | | | | | | | | |
| 1) | .96 | .97 | .96 | .97 | .98 | .99 | .97 | .99 | .98 | .93 |
| 2) | .95 | .97 | .95 | .97 | .97 | .99 | .96 | .98 | .98 | .92 |
| 3) | .94 | .96 | .95 | .97 | .97 | .99 | .96 | .98 | .98 | .91 |
| 4) | .94 | .96 | .95 | .96 | .97 | .99 | .96 | .98 | .98 | .91 |
| 5) | .94 | .96 | .95 | .96 | .98 | .99 | .96 | .98 | .98 | .91 |
| 6) | .94 | .96 | .95 | .96 | .98 | .99 | .96 | .98 | .98 | .91 |
| 7) | .94 | .96 | .95 | .96 | .98 | .99 | .96 | .98 | .98 | .91 |
| 8) | .94 | .96 | .95 | .96 | .98 | .99 | .96 | .98 | .99 | .91 |
| 9) | .94 | .96 | .95 | .96 | .98 | .99 | .96 | .98 | .99 | .91 |
| 10) | .94 | .96 | .95 | .96 | .98 | .99 | .96 | .98 | .99 | .91 |
| 11) | .94 | .96 | .95 | .96 | .98 | .99 | .96 | .98 | .99 | .91 |
| 12) | .94 | .96 | .95 | .96 | .98 | .99 | .96 | .98 | .99 | .91 |

APPENDIX A (Continued)

COMMUNALITIES FOR TWELVE ITERATIONS
TEN FACTORS TO BE RETAINED

| | Question Item Numbers | | | | | | | | | |
|----------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Iter- ation | | | | | | | | | | |
| 1) | .96 | .98 | .98 | .99 | .98 | .97 | .98 | .98 | .98 | .99 |
| 2) | .95 | .98 | .97 | .99 | .98 | .96 | .97 | .98 | .98 | .99 |
| 3) | .94 | .98 | .97 | .99 | .98 | .95 | .96 | .98 | .98 | .99 |
| 4) | .94 | .98 | .97 | .99 | .98 | .95 | .95 | .98 | .98 | .99 |
| 5) | .93 | .98 | .97 | .99 | .98 | .95 | .94 | .99 | .98 | .99 |
| 6) | .93 | .98 | .97 | .99 | .98 | .95 | .93 | .99 | .98 | .99 |
| 7) | .93 | .98 | .97 | .99 | .98 | .95 | .93 | .99 | .98 | .99 |
| 8) | .93 | .98 | .97 | .99 | .98 | .95 | .92 | .99 | .98 | .99 |
| 9) | .93 | .98 | .97 | .99 | .98 | .95 | .91 | .99 | .98 | .99 |
| 10) | .93 | .98 | .97 | .99 | .98 | .95 | .91 | .99 | .98 | .99 |
| 11) | .93 | .98 | .97 | .99 | .98 | .95 | .90 | .99 | .98 | .99 |
| 12) | .93 | .98 | .97 | .99 | .98 | .95 | .90 | .99 | .98 | .99 |

APPENDIX A (Continued)

COMMUNALITIES FOR TWELVE ITERATIONS
TEN FACTORS TO BE RETAINED

| | Question Item Numbers | | | | | | | | | |
|----------------|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Iter- ation | | | | | | | | | | |
| 1) | .98 | .95 | .99 | .98 | .99 | .99 | .96 | .98 | .99 | .96 |
| 2) | .98 | .94 | .99 | .98 | .99 | .99 | .95 | .97 | .99 | .95 |
| 3) | .98 | .94 | .99 | .99 | .99 | .99 | .95 | .97 | .99 | .95 |
| 4) | .99 | .94 | .99 | .99 | .99 | .99 | .95 | .97 | .99 | .95 |
| 5) | .96 | .94 | .99 | .99 | .99 | .99 | .99 | .97 | .99 | .95 |
| 6) | .99 | .94 | .99 | .99 | .99 | .99 | .95 | .97 | .99 | .95 |
| 7) | .99 | .94 | .99 | .99 | .99 | .99 | .95 | .97 | .99 | .95 |
| 8) | .99 | .94 | .99 | .99 | .99 | .99 | .95 | .97 | .99 | .95 |
| 9) | .99 | .94 | .99 | .99 | .99 | .99 | .95 | .97 | .99 | .95 |
| 10) | .99 | .94 | .99 | .99 | .99 | .99 | .95 | .97 | .99 | .95 |
| 11) | .99 | .94 | .99 | .99 | .99 | .99 | .95 | .97 | .99 | .95 |
| 12) | .99 | .94 | .99 | .99 | .99 | .99 | .95 | .97 | .99 | .95 |

APPENDIX A (Continued)

COMMUNALITIES FOR TWELVE ITERATIONS
TEN FACTORS TO BE RETAINED

| | Question Item Numbers | | | | | | | | |
|----------------|-----------------------|-----|-----|-----|-----|------|-----|-----|-----|
| | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 |
| Iter- ation | | | | | | | | | |
| 1) | .97 | .98 | .98 | .90 | .93 | .98 | .98 | .98 | .98 |
| 2) | .97 | .98 | .98 | .84 | .88 | .98 | .97 | .98 | .97 |
| 3) | .97 | .98 | .97 | .81 | .85 | .98 | .97 | .98 | .97 |
| 4) | .97 | .98 | .97 | .79 | .83 | .99 | .97 | .98 | .97 |
| 5) | .97 | .98 | .97 | .78 | .82 | .99 | .97 | .98 | .97 |
| 6) | .97 | .98 | .97 | .77 | .81 | 1.00 | .97 | .98 | .97 |
| 7) | .97 | .98 | .97 | .77 | .81 | 1.00 | .96 | .98 | .97 |
| 8) | .97 | .99 | .97 | .77 | .81 | 1.00 | .96 | .98 | .97 |
| 9) | .97 | .99 | .97 | .77 | .81 | 1.00 | .96 | .98 | .97 |
| 10) | .97 | .99 | .98 | .77 | .81 | 1.00 | .96 | .98 | .97 |
| 11) | .97 | .99 | .98 | .77 | .80 | 1.00 | .96 | .98 | .97 |
| 12) | .97 | .99 | .98 | .77 | .80 | 1.00 | .96 | .98 | .97 |

APPENDIX B

APPENDIX B

FACTOR PATTERN PRIOR TO ROTATION

| Question Items | Factors | | | | | | | | | |
|-------------------|---------|------|------|------|------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) | .75 | -.47 | .13 | -.01 | .25 | .21 | .01 | -.10 | .01 | .17 |
| 2) | .65 | .13 | -.32 | -.58 | .20 | .03 | .02 | -.00 | .18 | -.07 |
| 3) | .68 | -.42 | .04 | -.47 | .01 | .25 | .12 | .05 | -.05 | -.09 |
| 4) | .66 | -.41 | .22 | -.34 | -.30 | .32 | -.07 | .02 | -.04 | -.08 |
| 5) | .82 | .21 | .10 | -.32 | .09 | .37 | -.11 | -.02 | .04 | -.04 |
| 6) | .80 | .23 | .12 | .15 | -.29 | .37 | -.16 | .01 | -.04 | -.06 |
| 7) | .64 | -.35 | -.54 | .08 | -.28 | .05 | -.14 | -.00 | .15 | -.06 |
| 8) | .61 | -.73 | -.19 | .06 | .02 | -.01 | -.10 | .04 | .09 | .01 |
| 9) | .72 | .23 | .52 | .02 | .26 | -.13 | -.01 | .03 | .02 | -.26 |
| 10) | .85 | -.06 | .23 | -.18 | .32 | .00 | -.00 | .02 | .01 | .03 |
| 11) | .51 | .10 | -.21 | -.62 | -.35 | -.16 | .25 | -.11 | -.04 | .03 |
| 12) | .93 | .15 | .07 | .26 | -.05 | .07 | -.09 | -.03 | .02 | -.05 |
| 13) | .53 | .76 | .16 | -.13 | .15 | .11 | -.17 | .01 | -.03 | .10 |
| 14) | .82 | .20 | -.29 | .04 | .28 | .32 | .12 | -.00 | -.07 | -.00 |
| 15) | .73 | .49 | -.15 | .18 | .17 | .33 | .08 | -.03 | -.09 | -.01 |
| 16) | .37 | .06 | -.56 | -.13 | .51 | .17 | -.42 | -.04 | -.10 | .08 |
| 17) | .56 | -.21 | .42 | -.44 | -.00 | -.07 | .04 | .30 | .07 | .27 |
| 18) | .81 | -.15 | -.23 | -.24 | .05 | -.42 | -.04 | .09 | -.07 | .00 |
| 19) | .71 | -.45 | -.33 | -.33 | -.07 | -.06 | .10 | .07 | .13 | -.10 |
| 20) | .76 | -.22 | .11 | .49 | -.29 | .02 | -.11 | .09 | .07 | .06 |

APPENDIX B (Continued)

FACTOR PATTERN PRIOR TO ROTATION

| Question Items | Factors | | | | | | | | | |
|-------------------|---------|------|------|------|------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 21) | .79 | -.07 | .03 | .16 | -.52 | .21 | .00 | .06 | .10 | .06 |
| 22) | .75 | -.08 | -.32 | .18 | .19 | -.14 | -.18 | -.01 | -.04 | -.06 |
| 23) | .74 | .00 | .56 | -.28 | .03 | -.15 | -.14 | .03 | -.09 | -.01 |
| 24) | .70 | .23 | -.40 | .13 | -.48 | .03 | .02 | -.04 | -.17 | .10 |
| 25) | .80 | -.27 | .30 | .12 | .08 | -.33 | -.12 | -.14 | .02 | -.10 |
| 26) | .58 | .71 | .19 | -.05 | .08 | -.29 | .01 | .10 | .00 | .01 |
| 27) | .44 | .80 | -.15 | .05 | -.19 | .06 | -.00 | .18 | .02 | -.06 |
| 28) | .83 | .02 | .34 | -.01 | .06 | -.22 | .09 | -.30 | .12 | .06 |
| 29) | .76 | .28 | .41 | -.09 | -.16 | -.24 | -.12 | -.20 | -.03 | .09 |
| 30) | .88 | .08 | -.17 | -.11 | -.10 | .04 | .20 | -.17 | -.24 | -.04 |
| 31) | .89 | .20 | .15 | .20 | -.16 | .03 | .22 | .01 | -.04 | .01 |
| 32) | .38 | .82 | -.19 | .09 | .02 | -.26 | -.06 | .21 | .07 | -.02 |
| 33) | .66 | .26 | -.19 | .41 | .31 | .11 | .28 | -.19 | .21 | .07 |
| 34) | .54 | -.33 | .31 | .36 | .16 | -.15 | .25 | .14 | -.10 | -.04 |
| 35) | .36 | -.16 | -.65 | .00 | .07 | -.41 | .07 | .04 | -.21 | .01 |
| 36) | .61 | -.53 | .06 | .36 | .37 | .11 | .14 | .17 | -.09 | .05 |
| 37) | .72 | .28 | -.52 | .05 | .08 | -.19 | .13 | .04 | .17 | .03 |
| 38) | .90 | -.21 | .16 | .30 | -.01 | .08 | .03 | .10 | -.03 | -.04 |
| 39) | .80 | -.21 | -.09 | .24 | .23 | -.35 | -.22 | -.07 | .01 | .03 |

APPENDIX C

APPENDIX C
COMPLETE FACTOR STRUCTURE MATRIX

| Question Items | Factors | | | | | | | | | |
|-------------------|---------|------|------|-----|-----|-----|------|-----|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1) | .76 | -.08 | .18 | .71 | .58 | .50 | .58 | .58 | .01 | -.17 |
| 2) | .07 | .43 | .41 | .82 | .22 | .56 | .51 | .37 | .12 | -.15 |
| 3) | .46 | -.04 | .22 | .94 | .46 | .29 | .39 | .44 | .10 | -.11 |
| 4) | .40 | -.07 | .05 | .83 | .66 | .11 | .28 | .50 | .15 | -.07 |
| 5) | .36 | .55 | -.03 | .83 | .51 | .46 | .61 | .59 | .34 | -.25 |
| 6) | .41 | .55 | -.07 | .54 | .81 | .37 | .39 | .55 | .42 | -.35 |
| 7) | .28 | -.01 | .68 | .54 | .79 | .54 | .37 | .17 | -.10 | -.36 |
| 8) | .62 | -.34 | .56 | .59 | .67 | .40 | .41 | .35 | -.33 | .22 |
| 9) | .56 | .54 | -.07 | .45 | .30 | .24 | .21 | .88 | .11 | -.22 |
| 10) | .63 | .35 | .17 | .74 | .44 | .47 | .51 | .79 | .10 | -.12 |
| 11) | -.19 | .28 | .42 | .64 | .26 | .32 | -.01 | .33 | .46 | .17 |
| 12) | .59 | .54 | .20 | .52 | .79 | .57 | .43 | .72 | .25 | -.38 |
| 13) | .04 | .89 | -.20 | .29 | .16 | .29 | .39 | .51 | .48 | -.05 |
| 14) | .53 | .58 | .23 | .65 | .51 | .75 | .68 | .36 | .33 | -.49 |
| 15) | .41 | .77 | .02 | .44 | .48 | .65 | .56 | .37 | .48 | -.47 |
| 16) | .16 | .25 | .35 | .36 | .13 | .45 | .89 | .03 | -.08 | -.36 |
| 17) | .36 | .09 | .06 | .64 | .29 | .06 | .13 | .63 | .06 | .43 |
| 18) | .36 | .27 | .74 | .64 | .48 | .46 | .33 | .64 | .03 | -.03 |
| 19) | .36 | -.04 | .67 | .83 | .56 | .50 | .32 | .36 | -.10 | -.17 |
| 20) | .66 | .14 | .25 | .32 | .93 | .38 | .20 | .57 | .03 | -.24 |

APPENDIX C (Continued)

COMPLETE FACTOR STRUCTURE MATRIX

| Question Items | Factors | | | | | | | | | |
|-------------------|---------|------|------|------|-----|-----|-----|-----|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 21) | .40 | .28 | .19 | .55 | .94 | .41 | .16 | .49 | .29 | -.17 |
| 22) | .62 | .04 | .66 | .51 | .65 | .56 | .57 | .46 | -.20 | -.40 |
| 23) | .44 | .33 | -.00 | .61 | .40 | .09 | .22 | .94 | .19 | .12 |
| 24) | .12 | .49 | .44 | .37 | .76 | .51 | .21 | .28 | .53 | -.21 |
| 25) | .65 | .11 | .35 | .48 | .60 | .36 | .25 | .90 | -.08 | -.16 |
| 26) | .09 | .90 | .06 | .21 | .16 | .31 | .09 | .65 | .39 | .03 |
| 27) | -.11 | .93 | .02 | .15 | .28 | .31 | .10 | .22 | .49 | -.18 |
| 28) | .49 | .33 | .19 | .53 | .52 | .53 | .21 | .91 | .23 | -.05 |
| 29) | .25 | .52 | .06 | .42 | .50 | .28 | .14 | .92 | .41 | .09 |
| 30) | .40 | .44 | .38 | .70 | .62 | .60 | .38 | .56 | .52 | -.30 |
| 31) | .55 | .57 | .15 | .51 | .72 | .54 | .18 | .69 | .45 | -.22 |
| 32) | -.12 | .93 | .20 | -.01 | .11 | .32 | .08 | .27 | .29 | .09 |
| 33) | .52 | .52 | .20 | .28 | .44 | .89 | .42 | .36 | .20 | -.46 |
| 34) | .80 | .00 | .16 | .26 | .42 | .24 | .05 | .54 | -.06 | -.15 |
| 35) | .12 | .05 | .84 | .20 | .22 | .41 | .21 | .05 | -.03 | -.14 |
| 36) | .96 | -.13 | .25 | .43 | .50 | .42 | .44 | .40 | -.20 | -.30 |
| 37) | .20 | .60 | .65 | .43 | .45 | .80 | .35 | .32 | .16 | -.28 |
| 38) | .82 | .25 | .23 | .57 | .81 | .48 | .36 | .69 | .09 | -.33 |
| 39) | .45 | .15 | .60 | .37 | .81 | .43 | .23 | .67 | -.01 | -.16 |

APPENDIX D

APPENDIX D

REVISED AND CONDENSED HEMI QUESTIONNAIRE
WITH RESPONSE SCALES

1. To what extent does the person to whom you report represent the interests of your unit effectively to other parts of the institution?

Very little Some Considerable Very great

1 2 3 4 5 6 7 8

2. To what extent does the person to whom you report maintain high standards of performance?

1 2 3 4 5 6 7 8

3. To what extent does the person to whom you report seek your opinions, suggestions and ideas?

1 2 3 4 5 6 7 8

4. To what extent is the person to whom you report willing to make changes in practices based on input from you and your colleagues?

1 2 3 4 5 6 7 8

5. To what extent does the person to whom you report involve you in making decisions related to your work?

1 2 3 4 5 6 7 8

6. To what extent does the person to whom you report back you up in your actions?

1 2 3 4 5 6 7 8

7. To what extent does the person to whom you report give recognition for good performance?

1 2 3 4 5 6 7 8

8. To what extent does the person to whom you report strive to minimize frustrations in your work?

1 2 3 4 5 6 7 8

9. To what extent does the person to whom you report find time to listen to you?

1 2 3 4 5 6 7 8

10. To what extent does the person to whom you report communicate openly and frankly with you?

1 2 3 4 5 6 7 8

11. To what extent does the person to whom you report encourage you and your colleagues to work as a team?

1 2 3 4 5 6 7 8

12. How often do you see the behavior of the person to whom you report as friendly and supportive?

| Rarely | Sometimes | Quite a bit | A very great deal |
|--------|-----------|-------------|-------------------|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |

13. How well do you understand the way decisions are made at this institution?

| Not well | Somewhat well | Quite well | Very well |
|----------|---------------|------------|-----------|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |

14. To what extent does the person to whom you report involve you in developing your unit's performance standards?

| Very little | Some | Considerable | Very great |
|-------------|------|--------------|------------|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |

15. How satisfied are you with the extent of your involvement in the planning process in your unit (department/division/school)?

| Not Satisfied | Somewhat Satisfied | Quite Satisfied | Very Satisfied |
|---------------|--------------------|-----------------|----------------|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |

16. How satisfied are you with the extent of your involvement in the preparation of the budget for your unit (department/division/school)?

1 2 3 4 5 6 7 8

17. How often do you receive feedback on your performance?

| Rarely | Sometimes | Often | Very often |
|--------|-----------|-------|------------|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |

18. How satisfied are you with the way you receive feedback on your performance?

| Not satisfied | | Somewhat satisfied | | Quite satisfied | | Very satisfied | |
|---------------|---|--------------------|---|-----------------|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

19. How effective is the person to whom you report in working with people to improve their performance?

| Not effective | | Somewhat effective | | Quite effective | | Very effective | |
|---------------|---|--------------------|---|-----------------|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

How effective is the person to whom you report in:

20. Conducting meetings?

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|

21. Resolving problems through negotiation?

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|

22. Helping people with career planning?

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|

23. To what extent does the person to whom you report establish realistic targets and deadlines?

| Very little | | Some | | Considerable | | Very great | |
|-------------|---|------|---|--------------|---|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

24. To what extent does the person to whom you report delegate authority?

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|

25. To what extent does the person to whom you report provide you with adequate information to carry out your responsibilities?

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|

26. How adequate is the information that flows downward in this institution?

| Highly inadequate | | Somewhat inadequate | | Somewhat adequate | | Highly adequate | |
|-------------------|---|---------------------|---|-------------------|---|-----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

27. How adequate is the information that flows upward in this institution?

1 2 3 4 5 6 7 8

28. To what extent does the person to whom you report use a systematic approach to problem solving?

Very little Some Considerable Very great

1 2 3 4 5 6 7 8

29. How adequately does the person to whom you report explore alternatives before making decisions?

Highly inadequate Somewhat inadequate Somewhat adequate Highly adequate

1 2 3 4 5 6 7 8

30. How adequately does the person to whom you report estimate the costs and benefits of alternatives before making decisions?

1 2 3 4 5 6 7 8

31. How effective is the person to whom you report in implementing decisions?

Not effective Somewhat effective Quite effective Very effective

1 2 3 4 5 6 7 8

32. To what extent are decisions made at this institution on the basis of explicit, objective criteria?

Very little Some Considerable Very great

1 2 3 4 5 6 7 8

33. How clear and specific are the goals and objectives of your unit (department, division, school, etc.)?

Not clear Somewhat clear Quite clear Very clear

1 2 3 4 5 6 7 8

34. To what extent are your day-to-day working responsibilities clearly defined?

Very little Some Considerable Very great

1 2 3 4 5 6 7 8

35. How adequate are the resources you have for doing your work?

| Highly inadequate | | Somewhat inadequate | | Somewhat adequate | | Highly adequate | |
|-------------------|---|---------------------|---|-------------------|---|-----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

36. How clear and specific are your individual work goals and objectives?

| Not clear | | Somewhat clear | | Quite clear | | Very clear | |
|-----------|---|----------------|---|-------------|---|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

37. To what extent does your unit (department/division) evaluate its own performance in relation to goals and objectives?

| Very little | | Some | | Considerable | | Very great | |
|-------------|---|------|---|--------------|---|------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

How effective is the person to whom you report in:

38. Managing time?

| Not effective | | Somewhat effective | | Quite effective | | Very effective | |
|---------------|---|--------------------|---|-----------------|---|----------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

39. Using information systems and analytical techniques?

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|

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The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

April 20, 1990
Date

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