A STUDY TO DETERMINE THE RELATIONSHIP OF VERSATILE
BEHAVIOR TO INDIVIDUAL DEMOGRAPHICS, JOB
CHARACTERISTICS, ORGANIZATIONAL
CLIMATE, PERFORMANCE FEEDBACK
AND JOB SATISFACTION

DISSERTATION

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

For the Degree of

DOCTOR OF PHILOSOPHY

By

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The behavioral characteristics of leaders have been subjects of study for centuries. The scope of these studies has grown to encompass task analysis, follower needs and situational requirements. Current leadership theories consistently recognize the need for a successful leader to adjust behavior to meet the needs of the task, followers and situation. The problem of this research is to define this ability to modify one's behavior, measure it and test its relationship to demographic and job characteristics.

The purpose of this study is to evaluate the correlation of individuals' ability to modify their behavior to job function, hierarchy, climate, feedback, satisfaction and their demographic characteristics. The hypotheses held that high ability to modify behavior would correlate positively with job characteristics, climate, feedback and satisfaction and show no correlation to individual demographics.
Data were collected through the administration of three research instruments to 138 managers of three business firms. The instruments were the Participant Data Form providing job and demographic characteristics, Descriptive Adjective Questionnaire measuring an individual ability to modify behavior, and Climate and Satisfaction Evaluation Index measuring climate, feedback and satisfaction.

Pearson’s correlation coefficients were calculated to identify possible relationship between the manager’s ability to modify behavior, called versatility, and all other independent variables, and linear and multiple regressions were utilized to verify the relationship. No significant statistical correlation was found.

Conclusions are that the ability of a manager to vary behavior does not influence job climate, feedback or satisfaction, that the versatile behavior is not derived from job or demographic characteristics, and that job satisfaction is directly and positively related to performance feedback and climate.
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CHAPTER I

INTRODUCTION

The success of any individual in a leadership position depends on many factors including the situation, the task to be accomplished, the relationship of the leader to the followers, the competency and willingness of the followers, follower behavior, and the behavior of the leader. It is this last factor, the behavior of the leader, which is the subject of this study.

The identification of leader behavioral characteristics contributing to successful leadership and the classification of leaders into stereotypes has been done for centuries. Mystical forms of characteristic identification and leader classification include palmistry, astrology, phrenology, graphology, and others. Palmistry, the study of the hand's relationship to the psychology and future of the individual, is said to have existed in China in 3,000 B.C. Astrology was an integral part of the Babalonian, Egyptian, Inca, and Aztec societies.

Some of the more modern and humorous methods of classification include "the color of your favorite jelly beans" (Bard 1982), "the part of the body most admired" ("Leg Lovers A Step Ahead in Personality" 1981), and "how do you like your eggs cooked?" ("Eggs Reveal Personality 1975).
Studies such as these predicting success of a leader based on such frivolous behavior are interesting and fun studies, provocative, but not definitive.

By contrast, many scholarly studies take a position that there are no consistent leader characteristics or traits that assure leadership success. These studies have appeared at different times periodically over the past thirty-five years. Andrew W. Halpin and Ben J. Winer (1952) in a study of aircraft commanders' leadership patterns and the proficiency ratings of their crews, conclude that commanders with the least likely leadership characteristics were included in the high proficiency group and those with best or ideal leadership characteristics were in the low proficiency group.

Tannenbaum and Schmidt (1973) also list three forces that determine what type of leadership is practical and desirable—the forces in the manager, the forces in the situation, and the forces in the subordinate. They conclude that a successful leader or manager will be neither strong or permissive but rather flexible, behaving appropriately to the needs of the situation.

Research by Rensis Likert (1961) clearly shows that successful leaders come with a variety of behavioral characteristics. The presumed best or ideal characteristics of leader behavior do not always result in high performance,
and high performance can also be achieved under a presumed least-desirable leader behavior.

Dr. Fred Fiedler (1967), University of Illinois, doing research on factors characteristic of good leaders in successful situations, concluded that individuals can be successful as leaders only when there is a favorable match of their characteristics and situations. Fiedler concluded that successful leadership is dependent on three factors that define the favorability of the situation—the structure of the task, the quality of the leader/follower relationship, and the amount of formal position power.

Thomas Gordon (1980) specifies an effective leader as someone who has the skill to meet group needs, organization objectives, and the flexibility to know when and where to apply behavioral skills. Hersey and Blanchard (1977) identify leadership style range or style flexibility, the ability to vary leadership style, as the key behavior necessary to a leader's success in different situations. Success of any behavioral pattern is dependent on the individual's ability to accommodate a style flex (Manning 1982). Flexibility in learning and applying the skills necessary to be successful under varying conditions and situations is critical according to Blake and Mouton (1985).

Leader or managerial behavior also must vary dependent on group members' or subordinates' acceptance of the
leader's level of authority. Leader behavior must be different for those group members who want to be told or asked what to do or recommend and if approved take action or act and advise at once or act on their own and report routinely (Allen 85). The leadership methods that work in one situation may not work in another. The belief that there is one right way to lead is a myth (Niehouse 1987).

The common thread found in recent leadership studies is the reference to flexibility, style range, style flexibility, role shifting, style flex, and versatility. The amount of versatility an individual has may be the key to a leader's success. Will this characteristic of behavior (versatility) change as an individual ages? Is there any relationship to sex, race, education, and for experience?

Perhaps more important in establishing the predictability of effective leadership will be the relationship of a versatile behavior pattern to job factors such as function and hierarchy and situational factors such as climate, performance feedback, and job satisfaction. The analysis of the relationship of flexibility to demographic and job factors will be the focus of this research study.

This study develops the concept that versatile behavior is a focal point for effective leadership. The literature review and analysis will follow a historical pattern in order to illustrate several consistencies important to this study: First, knowledge of leadership theory has had
substantial growth. Second, growth in knowledge has consistently built on prior knowledge. Third, even as knowledge and theory have grown, in each case, at each level, major and obvious exceptions to the theory exist. Fourth, current leadership theory requires of the successful leader, a vaguely defined need to be flexible, to flex-style, to role shift, to be versatile.

**Purpose of the Study**

The purpose of the study is to evaluate the relationships of the ability of an individual to modify their behavior with the individual’s job function; their position in the hierarchy of jobs, job climate, performance feedback given and received; job satisfaction of subordinates; and selected demographic characteristics.

**Hypotheses**

The hypotheses of this study are that the amount of ability to modify behavior (versatility) will:

1. Correlate positively with upper hierarchical job levels,
2. Correlate positively with collaborative or participative job climate,
3. Correlate positively with high job satisfaction,
4. Correlate positively with a high degree of performance feedback,
5. Correlate positively with a greater amount of work experience,
6. Correlate positively with a greater amount of supervisory experience,
7. Show no correlation with respect to age,
8. Show no correlation with respect to sex,
9. Show no correlation with respect to race,
10. Show no correlation with respect to educational level, and
11. For job function, the amount of versatility will cluster, that is, certain functions (sales for example) will have a greater degree of versatility compared to other functions (for example accounting) which will have a lesser degree.

There are four popular categories of social scientific research: laboratory experiments, field experiments, field studies, and survey research (Kerlinger 1973). This research project will utilize survey research.

Methodology

Survey Instruments

Three survey instruments will be completed by both managers and their subordinates.

1. The Participant Data Form collects demographic and job factor data.
2. The Description Adjective Questionnaire will collect information that will identify a leader's behavioral style by means of a three-dimensional model. This is a critical item in that one dimension of the model will be the dependent variable of the hypothesis, the ability to temporarily change versatile behavior.

3. The Climate and Satisfaction Evaluation Index (CASE) will develop data on perceived and preferred climate, perceived and preferred feedback, and perceived and actual job satisfaction.

This research study is hypothesis testing in the sense that the researcher seeks to test for the existence of a potential relationship between the versatile dimension of the leaders' behavioral model and other demographic and job related factors.

Samples of each instrument are included in Appendices A, B, C, and D. All data will be electronically scored and stored in a computer data bank by social security number. Complete anonymity will be assured for all participants.

Population

The sample population will be individuals employed by three major corporations. The three organizations were selected because they are the only companies that have required, as part of their management development programs, participation by their managers in training activities
necessitating completion of all the research instruments. It is estimated that the sample size will be approximately 100 individuals.

Statistical Procedure

A researcher may select a parametric or nonparametric statistical procedure depending on the assumption that he or she makes about the population from which the sample is drawn. It is assumed at the outset that the sample population on which the study will be based is normal and that variances are not heterogeneous; therefore, parametric statistics will be used to analyze and test the data.

Initial statistical treatment of the data will be to screen it for errors and omissions. Where appropriate and necessary, corrections and/or deletions will be made. It is in this initial evaluation that "dummy" information may be utilized in order to permit use of the data for studies not involving the error of omission. For example, if age has been omitted, data from individuals under ten years old classification may be substituted. This would satisfy the programs need for complete data on all participants and permit use of the data in a frequency distribution analysis of versatility scores for women or versatility scores by job level.

For data analysis, the Statistical Package for the Social Services (SPSS) at East Texas State University
will be utilized. The SPSS batch system is a comprehensive tool for managing, analyzing, and displaying data. The full range of data and file management facilities available in SPSS will not necessarily be utilized. For this study, the systems procedures and features appropriate to descriptive statistics, measures of association for two-way tables, tests for equality of means, and bivariated and multiple regression will be utilized (Norusis 1983).

Multiple linear regression extends bivariated regression by incorporating multiple independent variables. Although there are procedures for computing all possible regression equations, several other methods do not require as much computation and are more frequently used. Stepwise selection of independent variables is probably the most commonly used procedure in regression and will be utilized for this study.

Limitations of the Study

Kerlinger (1973) pointed out that limitations and trade-offs occur in the selection of several potential research designs. This study is no exception. There are several limitations that confront the present study.

First, participation in the study will be limited to those managers who have completed a behavior profile and a CASE Index. Although many people have done one or the
other, only those who have done both can be included in this study.

Second, due to the fact that CASE requires direct input by subordinates, only supervisors and managers are included. Nonexempt employees and professionals with no subordinates are excluded.

Significance of the Study

Peter Drucker, over the last twenty-five years, has probably been the most widely read and respected business authority. In his book, *Management: Tasks, Responsibilities, Practices*, (1975) he comments, with respect to a leader’s characteristic traits and/or style,

The top management tasks require at least four different kinds of human beings: the thought man, the action man, the people man, and the front man. Yet, those four temperaments are almost never found in one person (616).

Prior studies by Tannenbaum and Schmidt, Thomas Gordon, Blake and Mouton, and Hersey and Blanchard, as noted earlier, similarly recognize the need for successful leaders to be different kinds of human beings and to adjust their behavior to the situation, task, and needs of those led. These authorities identified as insight, flexibility, style range, style flexibility, role shifting, style flex, or versatility.

This study is especially significant in that it proposes to measure and analyze versatility, the ability of
leaders/managers to adjust their behavior to meet the needs of the situation, task, and subordinates. The analysis of the relationship of versatility to demographics, job characteristics and, of versatility to job satisfaction will perhaps provide new information and will improve the understanding of effective leadership.

A second major significance of the study is the inclusion of two variables situationally impacting leadership that have not been extensively measured: job climate and performance feedback. The multiple correlation and regression analysis of these with versatility and other variables will provide new information and will further improve the understanding of effective leadership.

**Definition of Terms**

The terminology utilized in this study will be consistent with its source and the following specific definitions:

Behavior -- Things individuals say and do which others can observe and report (Merrill 1981).

Collaborative Climate -- Within an organization, an environment that encourages mutually-agreed-upon goals, use of personal methods and techniques, and mutual exchange of ideas and where work is self-controlled, participative and humanistic,
employee centered ("Climate and Satisfaction Evaluation" 1978).

Conditional Climate -- Within an organization, an environment that prescribes procedures, rules, policies, standardized methods; where there is limited opportunity for change and individuality; and where performance is measured and controlled, non-participative, non-humanistic, and production centered ("Climate and Satisfaction Evaluation" 1978). Job Climate -- The subjective impressions held by individuals about such organizational realities as structure, standards, leadership and rules; how an individual sees an organization's management approach, goals/objectives, activities, measurement system, "freedom," opportunities, and rewards ("Climate and Satisfaction Evaluation" 1978).

Job Satisfaction -- The overall feelings of comfort or discomfort with general conditions surrounding the job ("Climate and Satisfaction Evaluation" 1978).

Perceived -- How a particular setting, climate, or other condition is seen by an individual ("Climate and Satisfaction Evaluation" 1978).
Performance Feedback -- Verbal and nonverbal interpersonal communication that provides the recipient with knowledge of the results of his or her behavior ("Climate and Satisfaction Evaluation" 1978).

Preferred -- Which particular setting, climate or other condition is desired by an individual ("Climate and Satisfaction Evaluation" 1978).

Versatility -- The extent to which a person is seen as adaptable, flexible, competent, and behaving appropriately—a type of social endorsement. The ability to vary leadership style, style flex, and role shift (Merrill 1981).

Summary

The ability of an individual to lead depends upon many factors including the situation, the task to be accomplished, the relationship of the leader to the followers, follower behavior, and the behavior of the leader. It is the purpose of this research study to determine if the versatility dimension of a leader’s behavior has any significant relationship to demographic and occupational characteristics.

The key research instrument used in this study is the social style model of behavior. This particular concept was chosen because it utilizes an instrument which is completed by a reference group selected by the leader and
includes, as one of three dimensions of behavior, versatility, the dependent variable of this study.

Chapter II will present and discuss in chronological order the related research and literature on the evolution of leadership theory and the importance of versatility to effective leadership. Chapter III will present the research findings. Conclusions and recommendations will be discussed in Chapter IV.
CHAPTER II

RELATED RESEARCH AND LITERATURE

Introduction

Leaders, leadership, and leadership traits and/or characteristics have been the subject of scholarly studies for centuries. The amount of written and published material is enormous. An all inclusive review and analysis of these studies is beyond the scope of this project. For this project, concentration will be on key concepts that provide an insight into the chronological development of leadership theory with, ultimately, the development of a behavioral emphasis.

Early leadership concepts, pre-industrial revolution, will be reviewed initially using Plato, Atilla The Hun, and Niccolo Machiavelli as authorities. The second section will focus on the early industrial revolution with Washington, Carlyle, and Mills as references. The third section covers the maturing of the industrial revolution and presents the theories of Taylor, Mayo, Follet, and Barnard. The remaining sections, which span the late 1950s to present, shift emphasis from concepts to models and cover uni-dimensional, two-dimensional and three-dimensional models of leadership theory. For the three-dimensional model, three concepts
will be discussed—a psychological model, a personality model, and a behavioral model.

**Pre-Industrial Revolution Leadership Concepts**

Early writings on leaders tend to place leaders into one of two categories. "Great men" were perceived as either initiators of great actions (they are born) or products of an occasion that demanded a "great man" (they arise to an occasion).

Plato, as quoted by Jennings (1980), viewed the leader as the one who has the knowledge of how to begin and how to rule. "He who knows, does not have to do and he who does, needs no thought or knowledge" (Jowett 1960). It is curious how this concept survives today in so very many organizational managers. "Tell your employees only what they need to know to get their job done" is a currently prevailing concept of appropriate supervision within many organizations.

The acclaim of western historians have evaded the significance of Attila The Hun as an effective leader. His lot in history has been that of a tyrant and an unusually cruel plunderer of Europe. He has been the focal point of authors who characterized ruthless leaders and managers as "Atillas."

Atilla's brilliance as a leader, a genius civilizer, and, in his own way, a compassionate and able king, escapes common remembrances of him in any form. Wess Roberts (1985)
in his recently published study of Atilla identified seventeen leadership qualities, traits, and skills used by Atilla to become "King of Huns--Scourge of God." Among the seventeen, loyalty, empathy, and anticipation are consistent with the theme of this project.

Niccolo Machiavelli believed in the omnipotent great man necessary at the birth of an organization and at a time of severe crises. Quoting from Mark Musa's translation of Machiavelli's *The Prince*, Machiavelli (1964) wrote:

... and since this event of transition from ordinary citizen to prince presupposes either ingenuity or fortune, it would seem that either the one or the other of these two things should, to some extent, mitigate many of the difficulties; . . . .

... . . ., but to come to those who, by means of their own ingenuity and not by fortune, have become princes, let me say that the most outstanding are Moses, Cyrus, Romulus, Thesus and the like . . . .

... and examining their actions and lives, we see that from fortune they received nothing but the occasion; which in turn offered them the material they could then shape into whatever form they pleased; and without that occasion their very ingenuity would have been extinguished, and without that ingenuity the occasion would have come in vain (41, 43).

Machiavelli also spoke of the need for a successful leader to play two roles. The role of the lion—that is authoritative, dictatorial, fierce, and discovering; and the role of the fox—that is cunning, diplomatic, negotiable, and cooperative. A successful leader must not only be able to shift his behavioral role but also know when, and with whom, it is appropriate to play each role. Machiavelli's
concept of changing roles to meet situational needs is more popular today than it has ever been, and his recognition of the need for a successful leader to shift roles is a major area of study for this research project.

**Early Industrial Revolution**

**Leadership Concepts**

The invention of the steam engine by James Watt, patented in 1769, brought to the late 18th and early 19th centuries an industrial revolution. The steam engine freed manufacturing and processing industries from the limits of size and location of water power. Factories could now be built close to markets or resources. Its application to transportation provided a low-cost means of moving both people and goods great distances, thereby permitting the concentration of large numbers of people into cities.

Paralleling this industrial revolution were similar economic and political revolutions, principally the American Revolution in the western hemisphere and the French Revolution in the eastern hemisphere. The "Divine Right of Kings" was dying and democratic and socialistic political and economic institutions were being reformed.

One of the great political leaders of this time period was George Washington. George Washington--first in war, first in peace, first in the hearts of his countrymen; the man who could not tell a lie; could throw a silver dollar across the Potomac; and the "Father of His Country."
Consider the following quotation in a letter from General Washington to Major General Philip Schuyler, dated December 24, 1775: "We must . . . make the best of mankind as they are, since we cannot have them as we wish."

"To make the best of mankind as they are . . ." requires the definition, classification, or in some way establish "as they are" in some recognizable form. A form that can identify and provide recall, that has recognizable characteristics, that from experience permits the application of assumptions and predictability.

A statement very much in agreement with the General's is Patti Hartigan's. "You cannot change other people, but you can change the way you treat them" from Human Communication (Hartigan, undated). From Psychology Today, 1983, agreement from a negative point of view is expressed as follows: "Insensitivity to others was cited as a reason for derailment (executive failure) more often than any other flaw . . ." (McCall 1983).

Washington was truly unique in his advocacy of the leader's adjusting his strategies, tactics, plans, and actions to the individual positions, beliefs, values and styles of the followers. Leaders, executives, and/or managers, in order to be successful, must identify where those who will do the work are. They must then make the effort, to accomplish goals. This too, is a primary element of this research project.
Thomas Carlyle (1841) believed that leadership rested on intuition, insight into reality, and great sincerity. His belief that people could be saved from their woes by great men was put forth in his thesis *On Heroes, Hero Worship, and the Heroic in History*.

John Stuart Mill developed the theories of utilitarianism, tempering them with humanitarianism, and even reflected some agreement with socialism (Mill 1848 and 1863). Eugene Jennings condensed Mill's philosophy as looking upon a great man as one who would restore independence and originality, an individual who would create centers of independent thought, and whose powers of persuasion would be used to enlighten people (Jennings 1980).

Successful leaders need to be knowledgeable (Plato); to have special skills and qualities (Atilla); and to have an opportunity, the initiative, and the ability to role shift (Machiavelli). Washington, Carlyle, and Mill added a very significant piece to the leadership puzzle—the need for a successful leader to adjust his actions to the needs of those being led. By means of insight, intuition, sincerity, utilitarianism, humanitarianism, and originality, great men rise to the occasion.

**Industrial Revolution Leadership Concepts**

Traditional concepts of leadership focused on the "Princes" of the state, church, or armed forces. The
industrial revolution introduced new types of leaders—the Merchant Prince and the Captains of Industry. It was in this climate of technological and social change taking place in the late 19th and early 20th centuries that leaders started to seek a better way to cope with the increasing complexities of their enterprises—a scientific approach to leadership. The Scientific Management Movement focused leaders’ attention on the improvement of follower productivity and defined the leaders and their roles as managers responsible for gathering and interpreting data; for developing and implementing plans; and for selecting, training, and rewarding followers (Taylor 1916).

During the 1920’s an early 1930’s, attention turned away from the basically economic work motives emphasized by the developers of scientific management to a concern for the interpersonal relationships, the Human Relations Movement. Mary Parker Follett added impetus to the human relations movement. Her writing and lectures had significant impact popularizing her philosophy and belief that the fundamental problem of any organization was the building and maintenance of dynamic, yet harmonious, human relations within the organization (Follet 1940).

The Hawthorne studies were begun in 1924 at the Hawthorne Plant of Western Electric in Cicero, Illinois, and for the first time provided research evidence indicating the potential impact of the behavioral sciences on management.
The studies clearly demonstrated that workers react to the psychological and social conditions at work. Productivity can be influenced both positively and negatively by such things as informational group pressure, individual recognition, and participation in decision making (Rue and Byars 1983).

In 1938, Chester Barnard, President of New Jersey Bell Telephone, published a book which combined a thorough knowledge of organizational theory and sociology. Barnard viewed the organization as a social structure and stressed the psychological aspects of organizations. He effectively integrated traditional management and the behavioral sciences (Barnard 1938).

In the years prior to World War II, Taylor’s Principles of Scientific Management polarized into two concepts of effective leadership. One was the concentration on the scientific analysis of the laborer’s tasks, tools, machines, and operations for the purpose of standardization of materials, methods, pay rates and elimination of waste. This concept was a production/productivity non-humanistic orientation, as illustrated by Edgar McCormick’s quotation, "Workers were just like a part of the machinery or the building and weren’t paid to think" (McCormick 1938).

The second concentration of Taylor’s work was on the scientific testing, selection, training, development,
coaching, counseling, and communicating for the purpose of making the laborer worthy of hire, knowledgeable, cooperative, accepting, healthy, proficient, productive, and satisfied, a team/relationship/humanistic orientation, as illustrated by Charles McCormick's quotation, "I wonder if the creation of the new science of human relations is not, indeed, the greatest invention which Thomas Edison predicted" (Copley 1960; Kokar 1970; McCormick 1949).

**Uni-Dimensional Continuum Leadership Model**

World War II created a demand for high production and productivity rates. This, coupled with the need for early identification, selection, and accelerated training of leaders for the military and industry, resulted in expanded research on leadership concepts, models, and theories.

It was realized in the early part of the 1950's by many researchers that the study of leader behavior offered the potential for greater understanding of leader effectiveness. Leader behavior can be related more directly to the process of leadership and the requirements of a managerial position than can abstract traits (Wexley and Yukl 1977).

Studies of leaders during the 1940's and 1950's expanded integration of behavioral science with leadership theory. The production orientation of Scientific Management and the relationship orientation of the Human Resource Movement became seen as extremes of a leadership
style continuum. The leader who involves subordinates in
decision making and the leader who makes all the decisions
represents the two extremes. In between is a whole range
of leadership behavior measured by the amount of authority
exercised by the leaders and the amount of freedom given to
subordinates to make decisions.

Numerous continuum models were developed such as
authoritarian versus democratic, task-oriented versus
socioeconomic, and employee-centered versus production-
centered. The authoritarian versus democratic model has
been popular, since it agrees with accepted historical
concept of leaders influencing their followers by either of
the following:

A. They can tell their followers what to do and how to
do it (McCormick).

B. They can share their leadership responsibilities
with their followers by restoring independence, originality,
independent thought, and persuasion (Mill; McCormick).

University of Michigan Studies

The employee-centered (relationship) versus production-
centered (task) model was derived from studies by the Survey
Research Center at the University of Michigan. These two
orientations parallel the authoritarian (task) and
democratic (relationship) concepts (Katz 1950). Studies by
Rensis Likert (1961) indicate that a great many groups
performed well under a supervisor who is friendly,
approving, available, and helpful—a type of leadership described as democratic or participative. The Michigan research team also found many situations in which the participative type of leadership did not produce high performance and other situations where the opposite type of leadership, authoritarian, did produce high performance (Berliner 1979).

Leadership Behavior Patterns

Robert Tannenbaum and Warren Schmidt, in a paper published by the *Harvard Business Review* in 1973, expand upon the range of behavior by defining the high product and high relationship extremes of the continuum and providing unique definitions of in-between behavioral styles. The differentiation between styles is based on the degree of freedom allotted by managers to subordinates to make decisions.

At one extreme is the manager who exercises tight control makes all the decisions himself, announces them, and expects them to be accepted and obeyed on the power of his authority. At the other extreme is the manager who lets the group define the problem and make the decision within the prescribed limits (Tannenbaum and Schmidt 1973).

Tannenbaum and Schmidt also list three forces that determine what type of leadership is practical and desirable: the forces in the manager, the forces in the situation, and the forces in the subordinate. The
successful manager is neither strong nor permissive but rather one who is insightful and flexible and behaves in accordance with the needs of the situation (Berlinger 1970).

Theory X and Theory Y

Douglas McGregor’s Theory X and Theory Y is one of the most popular examples of this uni-dimensional, continuum theory of leader behavior. In Theory X, the leaders’ power is derived from their position in the hierarchy and that people are innately lazy and unreliable. In Theory Y, the leaders’ power is derived from the group they lead and the belief that people can be self-directed and creative (McGregor 1960). McGregor predicted that over time Theory X, traditional managerial practice, will be replaced by Theory Y as its concept of people achieves more and more general acceptance.

Behavioral Adjustment and the Uni-dimensional Continuum

The description of a leader’s behavior with respect to its position on the employee-centered/production-centered uni-dimensional continuum does not assure effectiveness of the leader. As Tannenbaum and Schmidt pointed out, it is necessary to move in the continuum, to be flexible. Likert’s studies at Michigan confirmed that there are successful leaders at all positions on the continuum. McGregor advocates movement for future leadership success from Theory X behavior toward Theory Y behavior.
Dr. Thomas Gordon in his book *Leader Effectiveness Training* (1980) comments specifically:

An effective leader cannot be only a "human relations specialist" (meeting members' needs) nor only a "productivity specialist" (meeting organizational needs). He or she must be both. Even more important, the effective leader must also acquire the flexibility or sensitivity to know when and where to employ these quite diverse skills to achieve mutual satisfaction of the needs of group members and the needs of the leader (20).

There are three common elements to the Uni-Dimensional Continuum Leadership Models. One is the recognition of two extremes: production orientation and relationship orientation as a range that encompasses a wide variation in a leader’s behavior. Second is that all behaviors within that range can be successful dependent on the environment within which the leader must operate. Third, the effective leader can identify and assume the style needed for the particular environment.

**Two-Dimensional Leadership Concepts**

Effective leadership does not appear to be either/or behavior. Effective leadership appears to require two sets of skills—(1) the skill to meet group members’ needs for self esteem, personal growth, group cohesiveness, and team spirit and (2) the skill to meet the organizations’ need for productivity and the achievement of goals (Gordon 1980).

A major study at Ohio State University for the Office of Naval Research resulted in a significant change in the
concept of leadership. The Ohio State research identified consideration and initiation of structure as two independent variations of behavior rather than as the extremes of a unidimensional behavior continuum. How people behaved with respect to consideration varied from high concern to low concern and initiation of structure also varied from high to low. The study defined these two major dimensions of leadership behavior as follows:

A. Consideration—the degree to which a leader is considerate of the persons led; that is, warm, personal, trusting, and willing to explain actions, and to listen but not be lax.

B. Initiation of Structure—the degree to which the leader organizes and defines the leader-subordinate relationship and takes an active, initiating role in determining who does what, and when (Blanchard and Hersey 1977; Hickman, Lawler and Porter 1975).

The Ohio State Leadership Model

The Ohio State Leadership studies were of leader behavior itself. The data collected was unique in that it included both a Leader Behavior Descriptive Questionnaire (LBDQ), which was completed by the leader’s superiors, subordinates, and peers plus a Leader Opinion Questionnaire (LOQ) completed by the leaders as a self-perception of their own leadership styles.
The Ohio State Research staff found that leadership behavior was a two-dimensional rather than a uni-dimensional continuum. Initiating structure and consideration were separate and distinct dimensions. Leaders could score any combination of high or low on both dimensions. For the first time, leader behavior could be plotted on a grid rather than a continuum, as illustrated in Figure 1.

![Ohio State leadership grid](image)

Fig. 1. Ohio State leadership grid.

The concept of two-dimensional leadership behavior was a major breakthrough in the development of leadership theory. The successful application of this concept to the pragmatic worlds of business and government was achieved by Robert Blake and Jane Mouton via their concept of the "Managerial Grid."
The Managerial Grid

The Ohio State studies concentrate on leader behavior. The emphasis is on two dimensions—task accomplishment (initiating structure) and personal relationships (consideration). Blake and Mouton, while working on major experiments with Exxon, used the Ohio State concepts and popularized them by means of their Managerial Grid. The Managerial Grid, as a book and as a management development program, has been extensively read and used throughout industry (Blake and Mouton 1964).

The Managerial Grid, based on the degree of concern for production (task) and concern for people (relationship), defines five different types of leadership behavior. Figure 2 illustrates the Managerial Grid leadership styles.

Blake and Mouton (1985) further commented that the dominant managerial assumptions (style) for any given person under a particular circumstance are influenced by the organization within which that person must perform. The organization and the relative strength of its culture, traditions, policies, procedures, rules, and regulations may dictate the style of that person's behavior. As an example, if an organization is highly task-oriented, a person new to the organization, in order to be effective, will be molded into a task-oriented manager, or will be asked to leave (Blake 1985).
The values, beliefs, and ideals of the manager, particularly with respect to interpersonal relationships, can establish a bias toward a particular leadership style. The personal history of a manager who has successfully used a particular dominant style repeatedly may have established that style as habitual and, may therefore, find it difficult to alter. A final determinant of leadership style is chance. A manager may not be aware of options, but through experience has developed a set of assumptions that dictate their dominant style (Blake and Mouton 1985).

The authors also point out that a manager’s dominant grid style will be consistent over a range of situations.

<table>
<thead>
<tr>
<th></th>
<th>(Low) Concern for Production</th>
<th>(High)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(High)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concern For Production</td>
<td>1-9 (Country Club)</td>
<td>9-9 (Team)</td>
</tr>
<tr>
<td>For People</td>
<td>5-5 (Middle of the Road)</td>
<td></td>
</tr>
<tr>
<td>Impoverished</td>
<td>1-1 (Impoverished)</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fig. 2.** The managerial grid leadership styles.
In addition to the dominant style, most managers will have a backup style that will be utilized when it becomes apparent the situation precludes the successful use of the dominant style. In other words, a backup style is the style a leader reverts to when under pressure, tension or in situations of conflict that cannot be solved in a characteristic way (Blake and Mouton 1985).

The Managerial Grid and the training and development programs developed by Blake and Mouton were a major contribution to the understanding of leadership. Their programs and training made available, in a commercial form, useful knowledge derived from the Ohio State studies.

The Managerial Grid in Retrospect

As helpful as the Managerial Grid is, it has some major flaws. The Ohio State framework is a behavioral model that examines by means of the LBDQ how the leader is perceived by others. The Managerial Grid by means of an instrument similar to the LOQ measures only the individual leaders' self-perception of their leadership styles.

It seems fair to question whether, in all cases, the position on the respective "concern for" dimensions generated by a self-administered instrument will be the same as that perceived by others. There is an abundance of early research illustrated in Table I indicating that the leader's self-perceived style will probably be different than the style perceived by his or her followers.
TABLE I

PERCEPTUAL DIFFERENCES BETWEEN MANAGERS AND THEIR SUBORDINATES

<table>
<thead>
<tr>
<th>Source of Recognition</th>
<th>Frequency Supervisors Feel Given &quot;Very Often&quot;</th>
<th>Frequency Subordinates Feel &quot;Very Often&quot; Received</th>
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<tr>
<td>&quot;Gives privileges&quot;</td>
<td>52%</td>
<td>14%</td>
</tr>
<tr>
<td>&quot;Gives more responsibility&quot;</td>
<td>48%</td>
<td>10%</td>
</tr>
<tr>
<td>&quot;Gives pat on back&quot;</td>
<td>82%</td>
<td>13%</td>
</tr>
<tr>
<td>&quot;Gives sincere and thorough praise&quot;</td>
<td>80%</td>
<td>14%</td>
</tr>
<tr>
<td>&quot;Trains for better jobs&quot;</td>
<td>64%</td>
<td>9%</td>
</tr>
<tr>
<td>&quot;Gives more interesting work&quot;</td>
<td>51%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: (Likert 1961, 91).

In addition, the Managerial Grid makes no provision for situational variables. Previously quoted research confirms that different leadership styles can be successful dependent on the situational factors of the environment in which they are utilized (Gordon 1980; Likert 1961; Tannenbaum 1973). Blake and Mouton do recognize that situational/environmental factors will influence leadership style and will influence a leader to develop a habitual style. They maintain that, regardless of the success of the habitual style and the evidence of the need to adjust style to the situation, that a leader will benefit by adjusting style to the 9,9 or team management style (Blake and Mouton 1985).
The Managerial Grid specifies that there is a "best" leadership style—"Team Management," the 9-9 position, a style to be sought after, learned, and practiced. This concept of a best style is inconsistent with a significant amount of research findings published over the last twenty-five years.

An extensive study by A. K. Korman (1966) concludes that consideration (relationship behavior) and initiation structure (task behavior) had no significant predictive value in terms of leader effectiveness. It further suggests that since situations differ so must a leader's behavior. James J. Cribbin (1985) identifies six successful leadership styles and six effective leadership styles. Mary Ann Allison (1984) argues that every leader/manager must be able to identify and choose one of four styles that best suits the leader, the follower, and the circumstance.

The Managerial Grid is a major contribution to leadership theory. It firmly established the two-dimensional characteristics of leadership. It has influenced and changed organizational situations, environments, and cultures. Further, its implementation on an organizationalwide basis provides an opportunity for it to benefit from a strong positive "Hawthorne Effect"; that is, it provides a means whereby a management group clearly makes an effort that meets group members' needs for self-
esteem, personal worth, personal growth, socialization and so forth.

The two-dimensional models developed by Ohio State and by Blake and Mouton do not explain why the best style sometimes failed and the worst style sometimes succeeded. Wexley and Yukl (1977) point out:

... initiating structure was positively related to subordinate performance for some samples of leaders but not for others. Consideration was positively related to subordinate performance for some samples of leaders and was unrelated or negatively related to subordinate performance for other samples. It had been widely assumed that the subordinates of highly participative leaders would perform better than the subordinates for highly autocratic leaders, and while this was indeed the case in many studies, some notable exceptions were found (148-149).

The effect of leader behavior on subordinate performance and other criteria depends on the situation and is not constant across situations. The importance of the situation was recognized as a result of the inconsistent results of the studies of leadership behavior. Paul Hersey and Kenneth Blanchard (1969) proposed a three-dimensional model of situational leadership behavior as a next logical growth to our understanding of successful leadership.

Three-Dimensional Leadership Concepts

Dr. Paul Hersey and Dr. Kenneth Blanchard developed for the Center for Leadership studies at Ohio University the Three-Dimensional Leader Effectiveness Model (Hersey and Blanchard 1969). The two dimensions identified at Ohio State, consideration and initiating structure, were
utilized although renamed "relationship behavior" and "task behavior," respectively. The resulting model is similar to The Ohio State model, but utilizes simpler semantics and essentially depicts four basic leadership styles.

Leadership style is defined as "the pattern of behavior that a person exhibits when attempting to influence the activities of others as perceived by those others" (Hersey, Blanchard and Hambleton 1977). They further point out that this may be quite different from how the leader perceives his or her own behavior. How the leader perceives himself or herself is called "self-perception" rather than leadership style.

Hersey and Blanchard, after an exhaustive research of the literature, suggest a third dimension for the Grid Model. They recognize William J. Reddin, 3-D Managerial Style Theory, (1967), as the originator of the third dimension and acknowledge his influence in the development of this model. This third dimension is identified as effectiveness. Effectiveness, or the degree of effectiveness, is a measure of the leader's performance compared to some other performance criteria.

Effectiveness is, therefore, a continuum with effectiveness at one extreme and ineffectiveness at the other. Effectiveness is defined as when the leader's style is appropriate for a given situation, and ineffectiveness is defined as when a leader's style is inappropriate for a
given situation. The authors emphasize that the effectiveness dimension is the environment or situation in which the leader is operating.

Unique to Hersey/Blanchard's model is the fact that no one leader's behavioral style is seen as being best or appropriate for all situations. Each style can be both effective or ineffective, dependent on the situation. As an example, a high task and low relationship style will be effective when seen as having well-defined methods for accomplishing goals that are helpful to the followers. It will be ineffective when seen as imposing methods on others—sometimes seen as unpleasant and interested only in short-run output.

In defining the Environment/Effectiveness, the equivalent of the third dimension, Hersey/Blanchard identify seven components, as follows (Hersey, Blanchard and Hambleton 1977).

1. Leader
2. Follower
3. Superior
4. Associate
5. Organization
6. Job demands
7. Other situational variables
Of these components, the first five are viewed as having two major components—behavioral style and individual expectations. Hersey and Blanchard elaborate on the presumed difficulty involved in changing one's habitual leadership behavioral style. They conclude that changes in behavior are much more difficult than changes in individual expectations. Since expectations are based on knowledge and attitudes, it is proposed that any behavioral style can be effective, at least temporarily, if knowledge and attitudes are changed to be compatible to that behavioral style and/or the situation (Blanchard and Hersey 1977).

The Situational Leadership Model

The Three-Dimensional Leadership Effectiveness Model has been continuously refined. It was renamed the Life Cycle Theory of Leadership (Hersey and Blanchard 1969) and in its current form is referred to as Situational Leadership Theory. Two dimensions, task behavior and relationship behavior, remain the same. The original third-dimension effectiveness/environment has been augmented with the addition of a parallel continuum entitled "The level of maturity of the followers" (Blanchard, Zigarmi and Zicherl 1985; Hersey 1977).

Situational Leadership Theory, with the establishment of the level of maturity of the followers as a parallel to the third dimension, establishes three considerations of leadership that are the same as Tannenbaum's and Schmidt's
three forces: the leader’s behavior, the situation or task, and the follower’s maturity. Of these, the most crucial may be the maturity of the followers. Followers in any situation are vital, not only because individually they accept or reject the leader, but because as a group they actually determine whatever personal power the leader may have (Langford, 1950). Personal power is the extent to which people are willing to follow a leader. "Leaders must either change their style to coincide with followers expectations or change follower expectations" (Berne 1964).

Evidence suggests that leader behavioral style may be, at least in some instances, more a consequence of subordinate behavior than its cause. Rather than leaders’ behavioral styles causing employee reactions, employee behavior and attitudes influence leadership styles (Hackman 1975). Therefore, even though managers would prefer to change their follower’s styles, they may find that they must adapt, at least temporarily, to the followers’ present behavior (Hersey, Blanchard and Hambleton 1977).

Maturity as defined in Situational Leadership is the willingness and ability of a person to take responsibility for directing his or her own behavior. If persons are divided (high and low levels on each dimension) four combinations arise that can be used to describe persons:

1. Individuals who are not willing and not able.
2. Individuals who are willing, but not able.
3. Individuals who are able, but not willing.

4. Individuals who are willing and able (Hersey, Blanchard and Hambleton 1977, 48-51).

The highest level of maturity would be combination 4; the lowest level would be combination 1. The maturity dimension and scale, as well as the measuring instrument were developed to be compatible and consistent with David C. McClelland's research on achievement motivation and Chris Argysis's immaturity-maturity continuum (Hersey, Blanchard and Hambleton 1977).

A composite illustration of the three dimensions; Relationship Behavior, Task Behavior, and Maturity of Followers is depicted in Figure 3. Note that the labels, "telling," "selling," "participating," and "delegating" only apply when describing the effective use of the appropriate style. Leadership styles are coded as 1, 2, 3, or 4 and maturity levels as R1, R2, R3, or R4.

Situational Leadership Theory in Retrospect

The Situational Leadership Theory relates extremely well with current state-of-the art concepts of leadership. It expands the factors involved in leadership to a three-dimensional model task, relationship, and effectiveness/environments and conditions effectiveness on maturity, both job and psychological, of those being led. It relates leadership style to both self-perception and observed behavior within the leadership environment. It also
Fig. 3—The situational leadership grid (Hersey 1984, p. 63).
specifically incorporates the need for the leader to understand the needs of the followers first and then adjust leader behavior rather than follower behavior.

Potential weaknesses of the Situational Leadership Theory are in the development of the maturity dimension. The method used deviates from the behavior approach of LEAD-Others Questionnaire. The task, relationship, and effectiveness dimensions also require value judgments and, therefore, tend to distort actual behavior descriptions.

A major problem with Hersey/Blanchard's concept of leadership behavior is the assumed ease of style change. This is contrary to their frequent references and the notations of Fiedler, Likert, Hersey, Berne, and others regarding the difficulty in changing style.

Blake and Mouton, in their book *The Versatile Manager* (1980), are highly critical of the Situational Leadership Theory and point out initially that invariably each situation is unique with respect to content, recognition, subtleties, complexities, and the values, attitudes, experience, knowledge, energy, et cetra of the different people involved. They go on to say:

Here, then, are two fundamentally different approaches to the exercise of leadership: the situational approach and the versatility approach. . . .

While a situation - determines - styles approach is appealing to conventional wisdom in an era when flexibility, adaptation, and reduced formality are accepted values, its consequences can be seen to be reduced organizational performance and lowered satisfaction for the individual.
versatility is present when an individual understands behavioral science principles and seeks to employ them in a consistent way as the basis for achieving productive results with and through other people. The versatility aspect is learning the skills necessary to apply the same principles under varying conditions situations or circumstances.

What little research there is that supports flexibility as a sound approach is limited in both depth and scope. On the other hand, there is much research to support the conclusion that versatility promotes productivity, creativity, satisfaction, and health (Blake and Mouton 1980, 5-8).

Fiedler also questions the concept of a flexible leadership style. The possibilities that some leaders may have flexible leadership styles or that people can be trained to adapt their behavior to the demands of the situation is rejected as unfeasible (Fiedler 1967).

Vroom is critical of the model for other reasons. He comments that the situational leadership model represents an ambitious and laudable effort to go beyond the obviously correct but vacuous statement that "...leadership depends on the situation. To be sure the theory is crude in its present form and the practical implications are matters of considerable uncertainty" (Vroom 1976, 1536).

Vroom also questions Fiedler's position that people cannot be trained to adapt behavior:

... it is not clear why leadership style should be as immutable as Fiedler implies. Presumably, leader behavior is learned and then why not can it be unlearned? Why should leaders be so resistant to the effects of education or organizational environments intended to help them to recognize differences in situational demands and to make different but appropriate responses to each? (Vroom 1976, 1536).
Behavior remains the key ingredient in predicting the potential for success of an individual in a leadership role. The successful behavioral style is dependent on the situation and the relationship of the leader to those being led. Two dimensions of behavior are very well-defined—task-oriented behavior and people-oriented behavior. A third dimension has been intimated, as follows:

A. Machiavelli - need for ingenuity to recognize the situation, to play the fox or lion role.

B. Tannenbaum and Schmidt - flexibility in assessing forces that determine appropriate behavior.

C. Gordon - flexibility to know when and where to apply behavioral skills.

D. Blake and Mouton - versatility in learning and applying the skills necessary to be successful under varying situations and conditions.

E. Hersey and Blanchard - style range or style flexibility, the ability to vary leadership style.

Situational Leadership Theory and its model have been very widely accepted and applied both in the United States and abroad. Tens of thousands of leaders and followers have completed LEAD-Self and LEAD-Others questionnaires. In analyzing this data, Hersey and Blanchard confirm the existence of a third dimension to leader behavior, the ability to vary leadership task and relationship behavior. This characteristic of leaders they identify as style range,
style flexibility, style adaptability, or style versatility (Hersey, Blanchard and Hambleton 1977).

In addition, the results of the data analysis is very supportive of the hypothesis of this research project.

We have found that effective managers at lower levels tend to have style profile 1-2. The reason is that at these lower levels of management there is an emphasis on productivity—getting the work out. At the other end of the hierarchy, however, effective top managers tend to have style profile 3-4. Rather than "telling" and "selling" they tend to engage in more "participating" and "delegating." The reason seems to be that as you move up in an organizational hierarchy, the greater the probability that the subordinates who report directly to you will have a high degree of task-relevant maturity. So you can see that as you progress through an organization, you learn to engage in styles 3 and 4, as well as those styles that might be effective at lower ends of the hierarchy (styles 1 and 2).

Another interesting observation in terms of the management hierarchy is that it is the middle managers who really have to wear "both hats"—they need the most flexibility. They have to be able to provide the structure style 1 and 2 interventions when appropriate, but they also must be able to use "participating" and "delegating" style when necessary. . ." (Hersey, Blanchard and Hambleton 1977, 255).

**Psychological, Personality, and Behavioral Leadership Models**

Although there is reference to the possibility that the differences in the LEAD-Self and LEAD-Others scores is a possible measure of style flexibility, the Situational Leadership model does not attempt to specifically determine versatility. As a result, additional models have been studied in order to identify a method of measuring this third dimension.
Included in this section are a psychological model, a personality model, and a behavioral model. The behavioral model will ultimately be utilized to establish the theoretical framework within which this study is made.

Three-Dimensional Psychological Model

During the 1960's and with increasing frequency in the 1970's, a three-dimensional leadership model was proposed by many researchers. The basis for the model for most proposals was earlier work done by Swiss psychologist Dr. Carl G. Jung regarding the "four functions of the mind," the four functions of the mind being the main awareness by which we learn, know, and relate to reality.

Jung's four functions of the mind--Thinking, Feeling, Sensation and Intuition--combined with two attitudinal types, extrovert and introvert, place leaders in one of eight possible psychological patterns.

Jung saw "mankind" as being habitually on a specific section of a three dimensional matrix. One dimension, "X", having, at one extremity, thoughtfulness and, at the other, perceptualness; a second dimension, "Y", having rationality and irrationality as its extremes; and the third dimension, "Z", having extrovertiveness and introvertiveness as its extremities (Winski 1971; Cox 1969).

The application of Jung's model to leadership and its commercialization was done by others. Isabel Myers' creation of the Myers-Briggs Type Indicator brought Jung's
psychological types to the forefront and served as a basis for the development of many new models of leader behavior.

Three-Dimensional Personality Model

In the summer of 1942, Katharine C. Briggs and Isabel Briggs Myers undertook the development of an instrument that would reflect one's preference for extroversion or introversion and one's preferred type of perception and judgement. Jung's psychological model was the basis of this work. Throughout the 1950's and 1960's, Myers used the instrument developed extensively in schools, colleges, and universities. Henry Chaunsey, head of the Educational Testing Services, was impressed with the instrument and published it and a manual for research purposes in 1962. Dr. Donald T. Mackennon, University of California; Professor Harold Grant, Michigan State and Auburn University; and Dr. Mary McCaulley, University of Florida, undertook significant research with the instrument and published supportive findings (Myers 1980).

In 1975 publication of the instrument known as the Myers-Briggs Type Indicator (MBTI) was transferred to Consulting Psychologists Press, and the Center for Applications of Psychological Type was organized. Widespread acceptance and use of the MBTI has followed so that today it is probably the most widely used personality measure for nonpsychiatric populations (Briggs and Myers 1986).
The Myers-Briggs Type Indicator (MBTI) uses 70 indicator questions which deal with the way one likes to use perception and judgement; the contrasting ways of perceiving, sensing, or intuition; the contrasting ways of judging, thinking, or feeling; and the relative interest in outer or inner worlds, introversion or extraversion. For each question, the respondent chooses between two diametrically opposed answers and these responses are translated into preferences (Briggs and Myers 1986).

The MBTI identifies for the participant a self-perceived dominant role or personality type that each individual will develop to govern and unify their lives. It also will identify an auxiliary role to compliment and balance the dominant role. If the dominant role is judgemental, the auxiliary will be perceptive; or if dominant is perceptive, auxiliary will be judgemental. When the auxiliary role is taken into consideration, Jung's eight psychological types become sixteen identifiable personality types as shown in Table II.

As was the case with Jung, few readers appear to have realized that the MBTI personality type concepts had a bearing on the familiar daily problems of educating people, counseling them, employing them, communicating with them, and living in the same family with them. For decades, the practical utility of MBTI went unexplored. Such is not the case today. Within the last ten years, the MBTI has become a
<table>
<thead>
<tr>
<th>Sensing Types</th>
<th>Intuitive Types</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With Thinking</td>
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<tr>
<td>ISTJ</td>
<td>Introverted Sensing with thinking</td>
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<td>ENFJ</td>
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</table>

Source: (Myers 1980).
major tool in vocational guidance, marriage counseling, family interaction, leadership training, and, perhaps most important, as a research tool for studies in many other areas (Myers 1980).

The MBTI develops a personality type consisting of an individual’s thoughts, feelings, behavior, values, wants, likes, and desires. It is a self-perception similar to Hersey/Blanchard’s Lead Self. Although the MBTI develops a dominant and auxiliary personality type, the theory does not identify any capacity for flexibility, versatility, style-flex or similar ability to temporarily roleshift. No attempt is made to explain, as has been pointed out frequently in this paper, why the most desired type sometimes fails or drops out and the least desired type sometimes succeeds (Myers 1980).

Leadership Style Behavior Model

The psychological and personality models are valuable and useful concepts. For this particular research project, however, they do not provide a specific measure or means to identify an individual’s ability to temporarily shift behavioral roles. Since the purpose of this study is to measure the flexibility/versatility of leadership and compare it to other variables such as job climate, performance feedback, and job satisfaction, other two- and three-dimensional behavioral models have been investigated.
Table III compares sixteen different behavioral style concepts or models. Of these, the majority are based on Dr. Carl Jung’s psychological model. Note that the number of behavioral dimensions ranges from zero to twelve, the number of styles from three to sixteen, and all but two are self-perceptions. Importantly, ten of sixteen recognize the ability to style flex, role shift, or to be versatile, but only one measures the ability to style flex or, to be versatile.

The social style concept or model was developed by Dr. James W. Taylor and refined by Dr. David Merrill. This model was selected for this research project because the model includes a validated, reliable measurement of an individual’s ability to be versatile, flexible, shift roles, flex style, and adjust behavior to meet follower needs. The dimensions of the model are developed by the description by others of observed behavior. In addition, it is the only behavioral model with three dimensions; all others tend to be two-dimensional either ignoring or providing only brief commentary on Jung’s third dimension.

The social style concept has one basic truth or axiom: "People tend to consistently behave or act in ways others can see and hear, and the words used to describe this behavior can be agreed upon by others who have seen and heard the same thing." The questionnaire instrument was
<table>
<thead>
<tr>
<th>Concept</th>
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<th>Number of Behavior Styles</th>
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<th>Style Flex Identified</th>
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<td>TDF</td>
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<td>3</td>
<td>Yes</td>
<td>No</td>
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<td>8</td>
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<td>No</td>
<td>No</td>
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<td>4</td>
<td>12</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
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<td>2</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
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<td>4</td>
<td>Yes</td>
<td>Yes</td>
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<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
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<td>2</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Communication &amp; Control</td>
<td>2</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Strength Deployment Inv.</td>
<td>3</td>
<td>7</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
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<tr>
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<td>0</td>
<td>4</td>
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<td>No</td>
<td>No</td>
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<tr>
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<td>12</td>
<td>4</td>
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<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Social Styles</td>
<td>3</td>
<td>4(16)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
developed by Dr. James Taylor to describe behavior by means of a 150-word adjective checklist (Merrill and Reid 1981).

Dr. Merrill changed Taylor’s approach and, for the first time, used multiple observers to describe an individual behavior. A sample of 600 individuals with from three to five people completing the 150-word adjective checklist was statistically analyzed. Factor analysis identified three dimensions of an individual’s behavior as described by others.

1. **Assertiveness:** The effort a person makes to influence the thinking and the actions of others; it is a measure of whether a person asks or tells.

2. **Responsiveness:** The extent to which a person reacts readily to influence or stimulation with a feeling; it is a measure of whether a person appears to control or express emotion.

3. **Versatility:** The extent to which others see you as adaptable, flexible, competent, and behaving appropriately; a type of social endorsement (Kilker 1983).

The scores on each dimension are scaled. The scales are divided into fourths so that 25% of the population fell into each quartile. Thus, for example, on the assertiveness scale there are four ranges, labeled A, B, C, and D. Those in the A quartile are seen as more assertive than 75% of the population; those in the D quartile are seen as less assertive than 75% of the population. Responsiveness (using labels 1-4) and versatility (labeled W-Z) are likewise divided (Merrill and Reid 1981).
During the early part of the research, persons profiled were given scores on three horizontal, separate scales—assertiveness, responsiveness, and versatility. Through factor analysis, it was determined that the three scales are independent of one another. For instructional simplicity, the assertiveness and responsiveness scales were placed in a perpendicular juxtaposition. In doing this a grid is formed. The horizontal axis ranges people in quartiles from least to most assertive. The vertical axis ranges people in quartiles from least to most responsive (See Figure 4).

Fig. 4. The social style profile (Merrill and Reid 1981, 53).

At this point, sixteen behavioral styles emerge in four theme quadrants with an equal number of people in each of
the four theme quadrants. The quadrants are named and described as follows:

**Driving** behavior is the term used to describe the upper right-hand quadrant and this behavior is characterized as assertive and nonresponsive. People who are in this quadrant are primarily seen by others as assertive, serious people who make an effort to tell people what they think and require. They have an action orientation and can appear severe because they do not display feelings or emotions (Merrill and Reid 1981, 61-63).

**Analytical** behavior is the term used to describe the upper left-hand quadrant and is characterized as non-assertive and nonresponsive. People in this quadrant are low in assertiveness and high in control of emotions and have a thinking orientation. Rather than being decisive or forceful, these leaders will tend to ask questions, gather facts, and study data seriously (Merrill and Reid 1981, 65-66).

**Amiable** behavior is the term used to describe those in the lower left-hand quadrant, characterized as nonassertive and more responsive. These individuals usually display feelings openly, are less assertive, and are more interested in being agreeable and cooperative, a team orientation (Merrill and Reid 1981, 64-65).

**Expressive** behavior is the term used to describe leaders in the lower-right hand quadrant, characterized as assertive and more responsive. These people are assertive
and public with their feelings, showing both positive and negative emotions readily. Expressive behavior has a social orientation (Merrill and Reid 1981, 63-64).

A person's position on the grid is determined by how three to five friends, co-workers, superiors, or subordinates describe their observed behavior of the individual from a 150-word adjective checklist. The checklists are computer-scored or analyzed, and the result is one of the above behavior styles.

The third dimension, versatility, is independent of the other two and is determined independently from the descriptive adjectives of the questionnaire. The two extreme quartiles of this dimension are limiting at one end and excelling at the other. The center two quartiles are referred to as balanced. A person with limited versatility can be seen positively as predictable and/or negatively as blunt. A person excelling in versatility can be seen positively as polished and negatively as inconsistent.

Table IV illustrates the similarities of the three-dimensional psychological, personality, and behavioral models. It should be noted that neither the psychological nor personality models include versatility as an adapting component or dimension of behavior. Only Merrill's behavioral model identifies a versatility dimension; that is, a person's ability to temporarily modify behavior to meet the needs of the situation and of the people involved.
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Psychological</th>
<th>Personality</th>
<th>Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Jung</td>
<td>Myers</td>
<td>Taylor</td>
</tr>
<tr>
<td>Dimensions</td>
<td>3</td>
<td>3</td>
<td>Marrill &amp; Reid</td>
</tr>
<tr>
<td></td>
<td>X Thoughtfulness</td>
<td>Perceiving</td>
<td>Versatility</td>
</tr>
<tr>
<td></td>
<td>Perceptualness</td>
<td>Sensitive</td>
<td>Limit/Consistent Predictability</td>
</tr>
<tr>
<td></td>
<td>Y Rationality</td>
<td>Intuition</td>
<td>Excel/Endorsement</td>
</tr>
<tr>
<td></td>
<td>Irrationality</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Z Extravertiveness</td>
<td>Judging</td>
<td>Responsiveness</td>
</tr>
<tr>
<td></td>
<td>Introvertiveness</td>
<td>Feeling</td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exotic</td>
</tr>
<tr>
<td>Types</td>
<td>8 Plus &amp; Secondary</td>
<td>16 With An</td>
<td>Assertiveness</td>
</tr>
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<td></td>
<td>for each (16)</td>
<td>Auxillary</td>
<td>Tell</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Ask</td>
</tr>
<tr>
<td>Determination By</td>
<td>Interview, Observation</td>
<td>Questionnaire</td>
<td>4 Main Themes</td>
</tr>
<tr>
<td></td>
<td>Psychological Testing,</td>
<td>Self Administered</td>
<td>4 Subs of each (16)</td>
</tr>
<tr>
<td></td>
<td>Professional Interpretation</td>
<td>Self Perception</td>
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<td>No</td>
<td>Yes</td>
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<td>Derived From</td>
<td>Choice/Habit</td>
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</tr>
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<td>Best Style</td>
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<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Staple Over Life</td>
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<td>Yes</td>
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</tbody>
</table>
Summary

Effective leaders are an important element of any successful organization and over centuries there have been many attempts to identify and predict who would become an effective leader. Scholars and researchers have added much to the body of knowledge comprising leadership theory in attempting to link successful leaders to specific traits, skills, characteristics, behaviors, situations, and/or followers.

For this research study, the concept of effective leaders needing to adapt their behavior to the needs of the situation and the needs of their followers is accepted. As the material in this chapter illustrates, this is a long-recognized and widely research-supported conclusion. The versatility dimension of the Social Style Profile based on observed behavior is assumed to be a measure of this ability.

Since versatility for a leader can vary from limiting to excelling, this study will attempt to determine if the variation has any relationship to demographics, job characteristics, job climate, feedback, and job satisfaction.

Chapter III, Methodology Data and Analysis, will present the data, data treatment, data analysis, and the statistical procedures. The hypotheses will be tested and the results shown.
CHAPTER III

METHODOLOGY AND DATA PRESENTATION

Introduction

The purpose of this study is to determine if the ability individuals have to modify their behavior temporarily (versatility) will correlate with job hierarchal level, work experience, job climate, job satisfaction, and performance feedback. The study will also determine if versatile behavior will show no correlation to age, sex, race, or educational level and with respect to job function, will cluster.

Methodology

The basic purpose of descriptive statistics is to describe a set of data. Initially, single variable means will be used to describe versatility. Measures of central tendency, measures of dispersion (spread), measures of position, and types of distributions will be calculated for the dependent variable versatility. Job function and/or job hierarchy will be used to split versatility data in separate groups of data, each of which will be described as to tendency, dispersion, position, and distribution.

Since the amount of data will be large, the entire listing of data for measures of position and type of
distribution will be condensed into a more manageable form and will be limited to specific variables.

Contingency or cross-tabulated tables and scatter diagrams demonstrate different relationships between two variables. The primary purpose of linear correlation analysis is to measure the strength of the linear relationship. The coefficient of linear correlation, $r$, is the measure of the strength of the linear relationship between two variables. The coefficient reflects the consistency of the effect that a change in one variable has on the other.

A formula called "Pearson’s product moment $r$ is used to calculate the coefficient. The value of $r$ helps us to answer the question: Is there a linear correlation between the two variables under consideration? There is a numerical value of $r$ that marks the decision point between concluding that there is or there is not a linear correlation between the two variables. This point is called a decision point whose value is determined by sample size. For this study with a relatively large sample size of +100, the numerical value of $r$ will be plus or minus 0.196 at a significance of 0.05.

The values for the decision points decrease as the sample size increases. If $r$ lies between the negative and the positive value of a decision point, we can assume there is no evidence of a linear relationship between the two
variables. If $r$ is either less than the negative value or more than the positive value of a decision point, we can conclude there is evidence of a linear relationship between the two variables.

The correlation coefficient will be used as a summary index to describe the observed strength of the association. The primary goal will be to test the hypothesis about the unknown population correlation coefficient based on its estimate, the sample correlation coefficient, $r$. In order to test such hypothesis, certain assumptions must be made about the distributions of the two variables. A common assumptions is that the samples are taken from a population within which the variables are distributed normally.

If there is a linear relationship between two variables, a straight or regression line, can be used to summarize the data. One of the most commonly used procedures for fitting a line to observations is the method of least squares. This method results in a line that minimizes the sum of the squared vertical distances from the data points to the line.

Description of the Population

The population involved in this study are employees of three different business firms engaged in insurance, packaged food products, and soft drinks. The actual number of participants in the study is 138. All participants are at the supervisory, mid-management, or executive levels; have
at least three people reporting directly to them; and have completed the three research instruments as discussed in Chapter I: (1) the Participant Data Form (PDF), (2) the Descriptive Adjective Questionnaire (DAQ), and (3) the Climate and Satisfaction Evaluation Index (CASE). As a result, the data on the 138 managers represent the input of more than 558 individuals. Data was initially processed by an independent consulting firm, the TRACOM Corporation of Denver, Colorado, while these three firms were engaged in management development activities. Each firm gave TRACOM permission to provide the data for this research.

Description of the Research Instruments

The following research instruments identified in Chapter I were utilized in this study:

The Participant Data Form (PDF) is completed by the participant. It identifies the participant by social security number and records age, sex, race, years of experience as a supervisor, educational level, and other personal and position characteristics. A sample is included as Appendix A.

The Descriptive Adjective Questionnaire (DAQ) was developed in its present form by Dr. David Merrill. The DAO is completed by a minimum of three direct subordinates of the participant. When completed and scored, the DAO provides a three-dimensional behavioral model of the participant’s habitual behavior. The respondent marks each of 150
adjectives with either a yes, no or question mark as being descriptive of a person’s behavior. Of the three dimensions—assertiveness, responsiveness and versatility—the versatility dimension is the dependent variable utilized in this research.

Reliability is a statistical measure of how consistently people respond to the same test items or scale. Reliability can be measured either over time or items. In the case of the descriptive adjective questionnaire, a reliability study was done over items. Perfect reliability would be 1.0. For the assertiveness dimension, a very high odd-even reliability of +.93 was found; for the responsiveness dimension the reliability was +.70; and for versatility, a reliability of +.91 (Kilker 1983).

In the 1960’s, a validity study was conducted against the versatility scale. In this study, home office employees for three companies were used. The study separated males and females. For the group of females, a positive correlation of +.52 was found between the employees’ competency ranking and versatility. A +.46 correlation was computed between attitude and versatility. Psychological statisticians generally accept a correlation of +.35 or above as usually significant for a sample of this size (Kilker 1983).

The same comparison was carried out using only the 150 males from the same three companies. Their jobs included
sales, credit managers, accountants, and adjusters. A +.48 correlation was found between competence on the job and versatility, and a +.44 correlation was found with rankings of attitude on the job and versatility (Kilker 1983).

The Climate and Satisfaction Evaluation Index (CASE) is designed to provide data on climate, feedback, and job satisfaction, both perceived and preferred. The CASE instrument consists of 117 statements with which both the participating managers and their subordinates may "strongly agree," "agree," "disagree" or "strongly disagree." The 117 statements focus on four opinion areas: human relations, work setting, job communications, and job attitude. The thirty human relations opinion statements and eighteen work setting opinion statements when scored will identify a position on the climate scale ranging from conditional/autocratic to collaborative/democratic. The fifty-five opinion statements with regard to job communications, when scored, will identify a position on a performance feedback scale ranging from low to high. The fourteen job attitude opinion statements, when scored, will identify a position on a job satisfaction scale from low to high.

The CASE instrument does not lend itself readily to traditional validity studies. Its purpose is to identify potential productivity inhibitors resulting from wide differences in preference and perceptions. Its objective is to provide to manager information that will enable them to
change the environment or relationship in such a manner that
the subordinate perceives their preference as being met.

It should be noted, however, that the CASE instrument
is very similar in its use, construction, content, and
grading to many early attitude-measurement instruments. As
an illustration, the Hoppoch scale as an illustration was
perhaps the earliest and most systematic attempt to develop
an index of job satisfaction. The Hoppoch index was based
on responses chosen from questions on job satisfaction.
Scale values, similar to CASE, ranged from 1, completely
dissatisfied, to 7, completely satisfied. The split-half
reliability of the Hoppoch scale was reported to be 0.93.
The scale was assumed to have face validity (Dunn and
Stevens 1972).

A second early instrument similar to CASE was the
Brayfield-Rothe Index of Job Satisfaction. This index is an
attitude scale and scores attitude on a scale ranging from
"strongly agree" to "strongly disagree" with respect to state-
ments made relative to one's present job. A reliability of
validity of the instrument rests upon the nature of the
item, the method of construction, and its differentiating
power when applied to two groups which could reasonably be
assumed to differ in job satisfaction (Dunn and Stevens
1972).
Validation of this instrument, CASE, is therefore based on both "face validity" and "logical validity." "Face validity" pertains to whether the instrument looks valid to the participants, administrators, and other untrained observers. Face validity is a desirable feature necessary for the instrument and is necessary for it to function effectively in practical situations (Anastasie 1976).

"Logical validity" insures that the content of the instrument is integrated in a noncontradictory fashion, all pertinent information being relevant to the phenomenon being measured (Locke 1983). An example of the type of question included in CASE to which the respondent indicates a "strongly agree," "agree," "disagree," or "strongly disagree" response illustrates the "Face and Logical Validity" of the instrument. Example: "Performance evaluations make me feel anxious."

Similarly, traditional reliability tests both between observers and over time are inappropriate to CASE. The instrument is intended to identify differences in the reliability of feedback information between observers and over time. Its purpose is to provide this information to the manager in order that corrections can be made in both interpersonal relations and job climate to change the perception and performance of subordinates. Traditional reliability tests proving the instrument reliable would also indicate failure of the managers to adapt interpersonally and
to alter job climate to meet the needs of their subordinates. However, as previously mentioned, CASE, in content and construction, is very similar to both the Brayfield-Rothe Index and the Hoppock Scale, both of which have high reliability and validity. Samples of both the managers' and the respondents' questionnaires are attached as Appendices C and D.

Procedures for Collecting the Data

In each of the three firms participating in the study a management development and training program was in process. These programs required that all participants complete the Participant Data Form (PDF), the Descriptive Adjective Questionnaire (DAQ) and the Climate and Satisfaction Evaluation Index (CASE).

The PDF and CASE questionnaires were completed by the participating managers. The DAQ and a CASE questionnaire were completed by all direct subordinates of the participating managers. All responses by both the managers and their subordinates were mailed directly by the respondent to an independent, external evaluation agency. The only name appearing on all the questionnaires and survey instruments was that of the participating manager. No one in any of the participating organizations had access to the actual responses. Results were reported in such a manner that no possible identification of subordinate responses could occur.
Procedures for Treatment of the Data

The data were screened for errors and were resorted by social security number, and a second set of data including demographics, job characteristics, versatility levels, and the Climate and Satisfaction Evaluation Indices was extracted. These data were for only those managers that had completed all three survey instruments. A total of 138 managers made up the sample population. Table V illustrates the information utilized for each manager.

It should be noted that Table V is illustrative of the data available on each participant. Although such tables could have been prepared for all 138 participants, no real direct contribution would be made by such a voluminous exhibit.

The CASE data included the manager's evaluation of subordinate preferences and perceptions of job climate, feedback, and job satisfaction. Subordinates' evaluations of their perceptions and preferences of job climate, feedback, and job satisfaction are also included. Differences in managers'/subordinates' perceptions and preferences were calculated and labeled as "indices." A total of 15 indices were computed from the data shown in Table V and are identified as follows:

1. Perceived Climate Index, Scale -10 to +10
2. Preferred Climate Index, Scale -10 to +10
3. Feedback Accuracy Index, Scale -10 to +10
### TABLE V

**SAMPLE DATA COLLECTED FOR EACH PARTICIPANT**

<table>
<thead>
<tr>
<th>Demographic Data</th>
<th>Job Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 65</td>
<td>No Yrs Experience 40</td>
</tr>
<tr>
<td>Sex Male</td>
<td>No Yrs Supr Exper 20</td>
</tr>
<tr>
<td>Race Caucasian</td>
<td>Job Function Training &amp; Dev</td>
</tr>
<tr>
<td>No Yrs Educ 16</td>
<td>Present Mgt Level Top Mgt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Survey Instrument Data</th>
<th>Numerical</th>
<th>Survey Instrument Data</th>
<th>Numerical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Versatility Percentile Score</td>
<td>92</td>
<td>Perceived Clim Mgr</td>
<td>38</td>
</tr>
<tr>
<td>Perceived Climate Ave Resp</td>
<td>23</td>
<td>Preferred Clim Mgr</td>
<td>62</td>
</tr>
<tr>
<td>Preferred Climate Ave Resp</td>
<td>32</td>
<td>Feedback Accur Mgr</td>
<td>13</td>
</tr>
<tr>
<td>Feedback Accuracy Ave Resp</td>
<td>5</td>
<td>Feedback Amount Mgr</td>
<td>12</td>
</tr>
<tr>
<td>Feedback Amount Ave Resp</td>
<td>6</td>
<td>Feedback Clarity Mgr</td>
<td>3</td>
</tr>
<tr>
<td>Feedback Clarity Ave Resp</td>
<td>5</td>
<td>Feedback Direction Mgr</td>
<td>10</td>
</tr>
<tr>
<td>Feedback Direction Ave Resp</td>
<td>11</td>
<td>Feedback Feeling Mgr</td>
<td>2</td>
</tr>
<tr>
<td>Feedback Feeling Ave Resp</td>
<td>9</td>
<td>Feedback Job Design Mgr</td>
<td>14</td>
</tr>
<tr>
<td>Feedback Job Design Ave Resp</td>
<td>13</td>
<td>Feedback Listening Mgr</td>
<td>7</td>
</tr>
<tr>
<td>Feedback Listening Ave Resp</td>
<td>9</td>
<td>Feedback Reliability B. O. Mgr</td>
<td>9</td>
</tr>
<tr>
<td>Feedback Reliability B.O. Ave Resp</td>
<td>10</td>
<td>Feedback Reliability O. T. Mgr</td>
<td>9</td>
</tr>
<tr>
<td>Feedback Reliability O.T. Ave Resp</td>
<td>4</td>
<td>Feedback Reward Mgr</td>
<td>10</td>
</tr>
<tr>
<td>Feedback Reward Ave Resp</td>
<td>11</td>
<td>Feedback Timing Mgr</td>
<td>7</td>
</tr>
<tr>
<td>Feedback Timing Ave Resp</td>
<td>5</td>
<td>Feedback Overall Mgr</td>
<td>8</td>
</tr>
<tr>
<td>Feedback Overall Ave Resp</td>
<td>10</td>
<td>Job Satisfaction Mgr</td>
<td>28</td>
</tr>
<tr>
<td>Job Satisfaction Ave Resp</td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Feedback Amount Index, Scale -10 to +10
5. Feedback Clarity Index, Scale -10 to +10
6. Feedback Direction Index, Scale -10 to +10
7. Feedback Feeling Index, Scale -10 to +10
8. Feedback Job Design Index, Scale -10 to +10
9. Feedback Listening Index, Scale -10 to +10
10. Feedback Reliability B.O. Index, Scale -10 to +10
11. Feedback Reliability O.T. Index, Scale -10 to +10
12. Feedback Reward Index, Scale -10 to +10
13. Feedback Timing Index, Scale -10 to +10
14. Overall Feedback Index, Scale -10 to +10
15. Job Satisfaction Index, Scale 0 to 100.

The hypotheses were tested by means of Pearson's product moment, $r$, or the coefficient of linear correlation which is a measure of the strength of the linear relationship of two variables. The values of $r$ help to answer the question: "Is there a linear correlation between the two variables under consideration?" There is a value for $r$ that marks the decision point between concluding that there is or is not a linear correlation. For this study with a sample size of 138, the numerical value of $r$ will be 0.196, at a significance level of 0.05. If $r$ is less than the negative value or more than the positive value of the decision point, 0.196, we can conclude there is evidence of a linear relationship between the two variables under study (Johnson 1980). Figure 5 "Decision Point, $r"
for this study" illustrates what we are looking for in determining the relationship among the variables included in this study.

<table>
<thead>
<tr>
<th>Possible Relationship</th>
<th>No Relationship</th>
<th>Possible Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>-0.196</td>
<td>0</td>
</tr>
</tbody>
</table>

Fig. 5. Decision point r for this study.

If the Pearson's product moment r indicates the possibility of a linear relationship between two variables, the least squares method will be utilized to determine the slope and intercept of the regression line. Where there is an indication of a linear relationship of several variables, stepwise selection of the independent variable will be used to determine the relative importance of each.

Analysis of the Data

The principle test for this hypothesis involves the application of Pearson's product moment r, the coefficient of linear correlation. The manager's versatility score will be the dependent variable. The manager's versatility score will be tested for linear correlation to selected demographic characteristics, job characteristics, and both perceived and preferred managerial and subordinate scores for job climate, performance feedback, and job satisfaction.
Composition of The Population

The composition of the population included in this study was determined with respect to age, sex, descent, years of education, years of supervisory experience, present level within the job hierarchy, and job function. The composition of the population is illustrated as follows:

1. Age
   A. Range—23 to 77 years
   B. Mean—44.464 years
   C. Median—44 years
   D. Largest age group—44 or 9.5%

2. Race—98.8% caucasian

3. Sex—95.7% male

4. Years of education—84.5% with 16 years or more

5. Years of supervisory experience—82.3% with 4 years or more

6. Hierarchal Distribution
   A. First-level supervision—7.1%
   B. Middle management—45.2%
   C. Support (staff)—28.7%
   D. Top Management—19.0%

7. Distribution by job function
   A. Training/Personnel—2.4%
   B. Manufacturing/Production—4.8%
   C. Sales/Marketing—66.7%
   D. Research/Engineering—2.4%
   E. General management—23.8%
The Dependent Variable Versatility

The versatility scores for the population are shown in Table VI.

**TABLE VI**

**VERSATILITY PERCENT RANGE AND DISTRIBUTIONS**

<table>
<thead>
<tr>
<th>Versatility % Range</th>
<th>Freq(N)</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-25</td>
<td>20</td>
<td>14.5</td>
<td>14.5</td>
</tr>
<tr>
<td>26-50</td>
<td>29</td>
<td>21.0</td>
<td>35.5</td>
</tr>
<tr>
<td>51-75</td>
<td>42</td>
<td>30.4</td>
<td>65.9</td>
</tr>
<tr>
<td>76-100</td>
<td>47</td>
<td>34.1</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

Mode 80  Std Dev 25.99  Skewness -.552

**Mean** 58.7  **Std Err** 2.2  **Median** 65.0

Independent Variables

For each of the independent variables shown in Table V the survey instrument scores of the population were extracted from the data and frequency tables generated. Table VII and Table VIII present the examples of the data.
<table>
<thead>
<tr>
<th>Subordinate Score Value</th>
<th>Freq(N)</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>-7</td>
<td>3</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>-6</td>
<td>3</td>
<td>2.2</td>
<td>4.5</td>
</tr>
<tr>
<td>-5</td>
<td>3</td>
<td>2.2</td>
<td>6.5</td>
</tr>
<tr>
<td>-4</td>
<td>4</td>
<td>2.9</td>
<td>9.4</td>
</tr>
<tr>
<td>-3</td>
<td>9</td>
<td>6.5</td>
<td>15.9</td>
</tr>
<tr>
<td>-2</td>
<td>14</td>
<td>8.0</td>
<td>26.1</td>
</tr>
<tr>
<td>-1</td>
<td>11</td>
<td>6.5</td>
<td>34.1</td>
</tr>
<tr>
<td>0</td>
<td>9</td>
<td>10.1</td>
<td>40.6</td>
</tr>
<tr>
<td>1</td>
<td>14</td>
<td>8.0</td>
<td>50.7</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>15.2</td>
<td>58.7</td>
</tr>
<tr>
<td>3</td>
<td>21</td>
<td>9.4</td>
<td>73.9</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>4.3</td>
<td>83.3</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>5.8</td>
<td>87.7</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>3.6</td>
<td>93.5</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>3.6</td>
<td>97.1</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>1.4</td>
<td>98.6</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>1.4</td>
<td>100.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>138</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Scale Score Value = -10 to +10
Mean 1.174 Std Err .303 Median 1
Mode 3.0 Std Dev 3.604 Skewness -.156
Range 16.
TABLE VIII
MANAGERS' OPINION OF SUBORDINATES'
PREFERRED CLIMATE FROM CASE

<table>
<thead>
<tr>
<th>Manager's Opinion Score Value</th>
<th>Freq(N)</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>-9</td>
<td>7</td>
<td>5.1</td>
<td>5.1</td>
</tr>
<tr>
<td>-8</td>
<td>1</td>
<td>.7</td>
<td>5.8</td>
</tr>
<tr>
<td>-7</td>
<td>9</td>
<td>6.5</td>
<td>12.3</td>
</tr>
<tr>
<td>-6</td>
<td>5</td>
<td>3.6</td>
<td>15.9</td>
</tr>
<tr>
<td>-5</td>
<td>7</td>
<td>5.1</td>
<td>21.0</td>
</tr>
<tr>
<td>-4</td>
<td>4</td>
<td>2.9</td>
<td>23.9</td>
</tr>
<tr>
<td>-3</td>
<td>12</td>
<td>8.7</td>
<td>32.6</td>
</tr>
<tr>
<td>-2</td>
<td>5</td>
<td>3.6</td>
<td>36.2</td>
</tr>
<tr>
<td>-1</td>
<td>8</td>
<td>5.8</td>
<td>42.0</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
<td>1.4</td>
<td>43.5</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>2.9</td>
<td>46.4</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>4.3</td>
<td>50.7</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>6.5</td>
<td>57.2</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>5.1</td>
<td>62.3</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>10.9</td>
<td>73.2</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>0.0</td>
<td>73.2</td>
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<tr>
<td>7</td>
<td>8</td>
<td>5.8</td>
<td>79.0</td>
</tr>
<tr>
<td>8</td>
<td>11</td>
<td>8.0</td>
<td>87.0</td>
</tr>
<tr>
<td>9</td>
<td>18</td>
<td>13.0</td>
<td>100.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>138</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Mean 1.326  Std Err .490  Median 2.000
Mode 9.000  Std Dev 5.753  Skewness -.215
Range 18.00
Data Presentation

Data presentation and hypothesis testing were done in several stages due to the large number of independent variables being analyzed in this study. Initially, demographic and job characteristic data will be presented. A second stage will analyze job climate, performance feedback, and job satisfaction.

Demographic and Job Characteristics

The possible linear correlations were first examined visually by means of scattergrams. The scattergram for versatility versus job level indicated a possible linear correlation. The median versatility scores by job level rose significantly from first-level supervisor, 60; next level, 65; next level, 70; and executive-level 75.

Scatterrams for versatility and the other independent variables were prepared by computer. These diagrams revealed no correlation or other significant data.

The first statistical test of the hypothesis involved the use of the Statistical Package for the Social Services. Pearson Correlation Coefficients were developed using manager's versatility percentile scores as the dependent variable and demographic and job characteristic as independent variables. With a decision point of ±0.196 possible correlations between versatility and job and demographic characteristics are illustrated in Table IX.
TABLE IX
PEARSON CORRELATION COEFFICIENTS FOR DEPENDENT VARIABLE VERSATILITY WITH INDEPENDENT VARIABLES
N = 138

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.2301*</td>
</tr>
<tr>
<td>Race</td>
<td>.0877</td>
</tr>
<tr>
<td>Sex</td>
<td>.2517*</td>
</tr>
<tr>
<td>Experience</td>
<td>.0388</td>
</tr>
<tr>
<td>Education</td>
<td>.1300</td>
</tr>
<tr>
<td>Supervisory Exper</td>
<td>.0723</td>
</tr>
<tr>
<td>Hierarchal Level</td>
<td>.2775*</td>
</tr>
<tr>
<td>Job Function</td>
<td>.1730</td>
</tr>
</tbody>
</table>

* Significance = 0.05.

The Pearson Correlation Coefficients indicates a possible linear correlation between versatility and age, sex, and hierarchal level. It also indicates no possible correlation between versatility and race, experience, education, supervisory experience, and job function.

As a result of this test conclusions can be made with respect to certain hypotheses of this study.

Hypothesis 5. The amount of ability to modify behavior will correlate positively with work experience based on data analysis presented, the hypothesis is rejected.

Hypothesis 6. The amount of ability to modify behavior, will correlate positively with supervisory experience, based on data analysis presented, the hypothesis is rejected.
Hypothesis 9. The amount of ability to modify behavior will show no correlation with respect to race, based on data analysis presented, the hypothesis is accepted. Although statistically accepted the dominance of caucasian in the population, 98.8%, distorts the analysis resulting in rejection. The assumption of normal distribution of variable within the population was not correct.

Hypothesis 10. The amount of ability to modify behavior will show no correlation with respect to educational level, based on data analysis presented, the hypothesis is accepted.

Hypothesis 11. The amount of ability to modify behavior will for job function the amount will cluster; that is, certain functions (sales) will have a greater degree of versatility compared to Other functions (accounting) which will have a lesser degree. Based on data analysis presented, the hypothesis is rejected.

The Pearson Correlation Coefficients indicate the possibility of an association between the dependent variable versatility and the manager's job level, age, and sex, as
shown in Table IX. A scattergram also indicated a possible linear relationship between versatility and job level.

If there is a linear relationship between two variables, a straight line (regression line) can be used to summarize the data. The least squares method of fitting a line to the observations was utilized. Actual calculation of the intercept and slope was done via the Statistical Package for the Social Service. The statistical analysis reported that no linear relationship was found to exist between versatility and age, sex, or present job level.

As a result of this test conclusions can be made with respect to the hypothesis of this study.

Hypothesis 1. The amount of ability to modify behavior will correlate positively with job hierarchal level, based on data analysis presented, hypothesis is rejected.

Hypothesis 7. The amount of ability to modify behavior will show no correlation with respect to age, based on data analysis presented, hypothesis is accepted.

Hypothesis 8. The amount of ability to modify behavior will show no correlation with respect to sex, based on data analysis presented, hypothesis is rejected.

At this point, no statistically significant single relationship between the dependent variable versatility and
the independent variables demographics and job characteristics had been found. In the event that there might be some combination of variables that would correlate with versatility, such as experience and education, all demographic and job characteristic were used, and multiple linear regression was performed.

Stepwise selection of independent variables is probably the most commonly used procedure in multiple regression and was used for this study. The independent variables for demographics and job function included are shown in Table V. No multiple regression equation was identified confirming the conclusions previously stated. No correlation exists between a manager's versatility and demographic and job characteristics.

Job Climate, Performance Feedback, and Job Satisfaction

The possibility of linear correlations were first examined visually by means of scattergrams. Figures 6 to 9 are illustrative of the computer plots. The horizontal axis in all cases is the manager's percentile versatility score divided into quartiles. The vertical axis is the numerical value of the particular independent variable being compared and is also divided into quartiles. The number in the center of each of the 16 squares is the number (N) of managers whose versatility and independent variable scores are within the numerical
### Fig. 6. Versatility versus Perceived Climate Index.

<table>
<thead>
<tr>
<th>Manager's Versatility</th>
<th>0</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>100</th>
<th>Total Mgrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>13.5</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>9.0</td>
<td>6</td>
<td>7</td>
<td>16</td>
<td>13</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td>9</td>
<td>20</td>
<td>22</td>
<td>26</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>0.0</td>
<td>20</td>
<td>29</td>
<td>42</td>
<td>47</td>
<td>138</td>
<td></td>
</tr>
</tbody>
</table>

### Fig. 7. Versatility versus preferred climate index.

<table>
<thead>
<tr>
<th>Manager's Versatility</th>
<th>0</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>100</th>
<th>Total Mgrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.0</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>12.0</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>6</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>8.0</td>
<td>7</td>
<td>15</td>
<td>20</td>
<td>12</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>10</td>
<td>8</td>
<td>18</td>
<td>24</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>0.0</td>
<td>20</td>
<td>29</td>
<td>42</td>
<td>47</td>
<td>138</td>
<td></td>
</tr>
</tbody>
</table>
### Manager's Versatility

<table>
<thead>
<tr>
<th>Total Mgrs.</th>
<th>0</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>7.5</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>5.0</td>
<td>7</td>
<td>4</td>
<td>12</td>
<td>12</td>
<td>35</td>
</tr>
<tr>
<td>2.5</td>
<td>8</td>
<td>20</td>
<td>22</td>
<td>25</td>
<td>75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
<td>29</td>
<td>42</td>
<td>47</td>
<td>138</td>
</tr>
</tbody>
</table>

**Fig. 8. Versatility versus overall feedback index.**

### Manager's Versatility

<table>
<thead>
<tr>
<th>Total Mgrs.</th>
<th>0</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>13.5</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>9.0</td>
<td>7</td>
<td>7</td>
<td>12</td>
<td>10</td>
<td>36</td>
</tr>
<tr>
<td>4.5</td>
<td>11</td>
<td>18</td>
<td>25</td>
<td>28</td>
<td>82</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
<td>29</td>
<td>42</td>
<td>47</td>
<td>138</td>
</tr>
</tbody>
</table>

**Fig. 9. Versatility versus job satisfaction index.**
ranges appropriate to that square. The numbers external to the grid bottom side are the total number of managers within the respective versatility range. The numbers external to the grid, right side, are the total number of managers whose independent variables score fell within the indicated range.

The scattergrams did not show any strong linear correlation between a manager’s versatility score and any of the independent variables. There is a suggestion of some possible relationship since versatility scores tend to cluster in the above 50 percentile portion of the scale—89 of 138, or 64.5%. At the same time, independent variable scores cluster at the low end of their respective scales, ranging from 86.2% to 78.3%.

Statistically testing the hypothesis involved the use of SPSS. Pearson Correlation Coefficients were developed using the managers’ versatility percentile scores as the dependent variables and Job Climate, Performance Feedback, and Job Satisfaction as independent variables. A decision point of ±0.196 for this sample size would indicate possible correlations between a manager’s versatility and job climate, performance feedback, and job satisfaction. The results of this test are shown in Table X, "Pearson Correlation Coefficients for Versatility versus Job Climate, Performance Feedback, and Job Satisfaction Indices."
TABLE X
PEARSON CORRELATION COEFFICIENTS FOR VERSATILITY VERSUS JOB CLIMATE, PERFORMANCE FEEDBACK, AND JOB SATISFACTION INDICES.
N = 138

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>( r^* )</th>
<th>Characteristics</th>
<th>( r )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Climate</td>
<td>-.0091</td>
<td>Job Design</td>
<td>-.1763</td>
</tr>
<tr>
<td>Preferred Climate</td>
<td>.0091</td>
<td>Listening</td>
<td>-.0973</td>
</tr>
<tr>
<td>Accuracy</td>
<td>-.0075</td>
<td>Reliability-BO</td>
<td>-.1132</td>
</tr>
<tr>
<td>Amount</td>
<td>.0059</td>
<td>Reliability-OT</td>
<td>-.0461</td>
</tr>
<tr>
<td>Clarity</td>
<td>-.1538</td>
<td>Reward</td>
<td>-.1241</td>
</tr>
<tr>
<td>Direction</td>
<td>-.0850</td>
<td>Timing</td>
<td>.0203</td>
</tr>
<tr>
<td>Feeling</td>
<td>-.0911</td>
<td>Overall</td>
<td>-.0434</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Job Satisfaction</td>
<td>-.0308</td>
</tr>
</tbody>
</table>

*\( r = \pm 0.196; \) Significance 0.05.

As a result of this test, conclusions can be made with respect to the hypothesis of this study.

Hypothesis 2  The amount of ability to modify behavior will correlate positively with job climate, based on the analysis of data, the hypothesis is rejected.

Hypothesis 3  The amount of ability to modify behavior will correlate positively with job satisfaction, based on the analysis of data, the hypothesis is rejected.

Hypothesis 4  The amount of ability to modify behavior will correlate positively with performance feedback, based on the analysis of data, the hypothesis is rejected.
At this point, no statistically significant single relationship between the dependent variable--versatility--and the independent variable--job climate, performance feedback, and job satisfaction--indices had been found. Indices had been created in order to compress the data and make relationships more significant. To insure no masking or omissions had happened, the 30 variables included in climate, feedback, and satisfaction were then tested directly. Pearson Correlation Coefficients were calculated and are shown in Table XI.

**TABLE XI**

*PEARSON CORRELATION COEFFICIENTS FOR VERSATILITY VERSUS INDIVIDUAL VARIABLES FOR CLIMATE, FEEDBACK, AND SATISFACTION*

* N = 138

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>r*</th>
<th>Characteristic</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub. Pref. Climate</td>
<td>.0128</td>
<td>Mgr. Pref. Climate</td>
<td>.1692</td>
</tr>
<tr>
<td>Sub. Accuracy</td>
<td>.1349</td>
<td>Mgr. Accuracy</td>
<td>.0875</td>
</tr>
<tr>
<td>Sub. Amount</td>
<td>.1327</td>
<td>Mgr. Amount</td>
<td>.0794</td>
</tr>
<tr>
<td>Sub. Clarity</td>
<td>.0877</td>
<td>Mgr. Clarity</td>
<td>.0754</td>
</tr>
<tr>
<td>Sub. Direction</td>
<td>.0007</td>
<td>Mgr. Direction</td>
<td>.0225</td>
</tr>
<tr>
<td>Sub. Listening</td>
<td>.0062</td>
<td>Mgr. Listening</td>
<td>-.0835</td>
</tr>
<tr>
<td>Sub. Reliability-BO</td>
<td>.0122</td>
<td>Mgr. Reliability-BO</td>
<td>-.0136</td>
</tr>
<tr>
<td>Sub. Reliability-OT</td>
<td>.0258</td>
<td>Mgr. Reliability-OT</td>
<td>-.0223</td>
</tr>
<tr>
<td>Sub. Reward</td>
<td>.0963</td>
<td>Mgr. Reward</td>
<td>.1649</td>
</tr>
<tr>
<td>Sub. Timing</td>
<td>.0932</td>
<td>Mgr. Timing</td>
<td>.0675</td>
</tr>
<tr>
<td>Sub. Overall Feedback</td>
<td>.0876</td>
<td>Mgr. Overall Feedback</td>
<td>.0759</td>
</tr>
<tr>
<td>Sub. Job Satisfaction</td>
<td>.0688</td>
<td>Mgr. Job Satisfaction</td>
<td>.1141</td>
</tr>
</tbody>
</table>

* r = ±0.196; Significance 0.05
The Pearson Correlation Coefficient indicates no possible correlation between the manager's versatility and any of the elements comprising job climate, performance feedback, and job satisfaction. The rejection of Hypotheses 2, 3, and 4 as previously stated has been confirmed.

As with the demographic and job characteristics, in the event that there might be some combination of variables that would correlate with the manager's versatility, such as perceived climate and job satisfaction, all variables were entered and performed by computer via SPSS, a stepwise multiple linear regression. No multiple regression equation was identified reconfirming the previous conclusions—no correlation exists between a manager's versatility and job climate, performance feedback, and job satisfaction.

Summary and Conclusions Regarding the Hypotheses

In summary, the evidence calls for the rejection of all but two of the hypotheses based on the fact that no statistical correlation could be found, and, in those cases where it was hypothesized "no correlation," the assumption of a normal distribution within the population was not correct. It must be concluded that managers' ability to vary their behavior, versatility, does not correlate with their demographic characteristics or their jobs' characteristics. In addition, versatility does not correlate with the managers' or their subordinates'
perception or preference for job climate, performance feedback, or job satisfaction. The only accepted hypothesis that a manager's ability to temporarily adjust behavior, to be versatile, is not correlated to educational level and age.

Additional Findings of Interest

As with any research effort, observations and findings occur and develop which are beyond the original scope of the project. This research effort revealed several interesting observations and indications which are discussed in this section.

Managers' Versatility Versus Norming Population's Versatility

The norm to which the managers' versatility was compared was developed from an initial population of 997. This initial population came primarily from a business and professional setting and, therefore, participants were not measured against the population in general. The raw scores for versatility were computed from the Descriptive Adjective Questionnaire (DAQ) and tallied for the 997 people. After tallying, the versatility scale was divided into fourths, so that 25 percent of the population was in each quartile. Thus, the mean and median for the norm was exactly the 50th percentile. As the DAQ has been used, the norm has been periodically updated to represent the increased data base. The norm has proven to be very stable over time and for
varying groups of people (Merrill and Reid 1981).

As a result of this staple norm, it could be anticipated for the population for this study that the population would distribute itself fairly uniformly across the versatility scale, that is, about 25 percent of the managers should be in each quartile. For this sample made up exclusively of managers, the anticipated distribution was not achieved. Rather than being fairly uniform, distribution clusters at the high end of the versatility scale, 89 managers (64.5%) had scores above the 50th percentile, with a mean score of 58.7 and a median score of 65.0.

Managers, as a unique group, tend to be more versatile than a normal population made up of business and professional people including some managers. This seems to be consistent with the recommendations of the authorities quoted in Chapters I and II that managers need to shift roles, be flexible, be adaptable, and be versatile. "The leader may be accomplished in gaining the submission of others to his purposes. But in the everyday reference he is as often merely adept at identifying himself with the conditioned will of the crowd and identifying for the crowd its own purpose" (Galbraith 1983).

The fact that the versatility scores for managers did range from low to high tends to confirm that there are situations where managers lacking the desired versatility characteristic are successful; 49 of the managers (35.5%)
had scores below the 50th percentile. The task to be accomplished, the situation, and the technical skill and psychological willingness of the people doing the work may require, for best results, nonversatile behavior from the manager. "Power accrues not to the individual who knows; it goes to the one who, often out of obtruseness, believes that he knows and who can persuade others to that belief" (Galbraith 1983).

Versatility and Job Hierarchal Level

Although no statistical correlation was found to exist between versatility scores and job hierarchal level, it does appear that there is a tendency for higher-level managers to have more versatility than lower-level managers as mentioned previously. Roughly three-fourths of top-level managers' versatility scores are within the 75 to 100 percentile range. At the same time, nearly two-thirds of the first-level managers are within the 25 to 50 percentile range.

This should not be interpreted to mean that first-level managers have limited versatility or that top-level managers have high versatility. What it seems to indicate is that there is a tendency for first-level managers to be seen by their subordinates as limiting their versatility and behaving in a consistent, predictable manner. At the same time, top-level managers are seen by their subordinates as very versatile and behaving in a flexible, negotiable, and
participative manner.

These findings are consistent with and supportive of the findings of Hersey, Blanchard and Hambelton (1977). As part of their continuous research on Situational Leadership Theory, they have collected data on tens of thousands of managers who have participated in their Situational Leadership Training Workshops. Based on their data from the Lead-Others questionnaires, Hersey, Blanchard and Hambelton conclude that effective leadership style does vary dependent on the leader's position in the organization hierarchy. Effective managers at the supervisory level tend to use the tell, sell, predictable, and consistent leadership style, while at the executive level the participative, delegative, negotiable, and flexible styles predominate.

The tendency for low level managers to appear to subordinates as limiting versatility and for top-level managers to appear to their subordinates as excelling in versatility answers Vroom's pointed questions on leader behavioral style. "Why should leadership style be immutable?" "Leader behavior is learned and then why not unlearned?" Leader behavior is not immutable and does change, it is learned and can be unlearned. Leaders are responsive to the effects of education and organizational environments intended to help them recognize differences in situational demands and to make different and appropriate
responses to each (Vroom 1976, 1536).

Climate, Feedback, and Job Satisfaction

Not as part of this study, but rather a by-product of advanced data processing, are some interesting findings on the relationships of Job Climate and Feedback to Job Satisfaction. Pearson correlation coefficients were computed by correlating the variables for climate and feedback with job satisfaction. The correlation coefficients are shown in Table XII.

TABLE XII

CORRELATIONS BETWEEN CLIMATE AND FEEDBACK
WITH JOB SATISFACTION
N = 138

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subordinates' perceived climate</td>
<td>.5403*</td>
</tr>
<tr>
<td>Subordinates' preferred climate</td>
<td>.0531</td>
</tr>
<tr>
<td>Subordinates' job design feedback</td>
<td>.4377*</td>
</tr>
<tr>
<td>Subordinates' timing feedback</td>
<td>.5009*</td>
</tr>
<tr>
<td>Subordinates' overall feedback</td>
<td>.6236*</td>
</tr>
<tr>
<td>Managers' perceived climate</td>
<td>.0561</td>
</tr>
<tr>
<td>Managers'/subordinates' preferred climate</td>
<td>.0928</td>
</tr>
</tbody>
</table>

*| r | ±0.196; significance = 0.05

The data in Table XII indicates the possibility of a relationship between subordinates perceived climate, feedback from job design, feedback timing, and overall quality of feedback and subordinate job satisfaction. The
very high correlation of overall feedback is reflective of the major influence feedback has on job satisfaction. Performance feedback is critically important to good and effective communication and job satisfaction, but not necessarily indicative of job performance (Schermerhorn 1984). Feedback from the job itself, the work, is a major determinant of job satisfaction (Wexley 1977).

The timing of feedback and the design of the job itself are similarly satisfier factors. Feedback from the job itself is the degree to which the work activities required by the job results in the individuals' obtaining direct and clear information on their performance. The presence of feedback characteristics in the job results in the promotion of job satisfaction (Schermerhorn 1986).

In order to investigate the possible correlation of job satisfaction and subordinates perceived climate a set of statistics was computed for job satisfaction. On a scale of 0 to 100, job satisfaction scores varied from 8 to 93, a range of 85. The mean score was 63.572, the median score was 66.0, and the distribution was bimodal with peaks at 69 and 78. It can be reasonably concluded from this data that the subordinates participating in the population for this study on average were well-satisfied in their jobs.

The analysis of the climate variable in the possible correlation with job satisfaction included four climate variables and four paired comparisons of the following:
1. The managers' perceived climate.

2. The subordinates' perceived climate.

3. The subordinates' preferred climate.

4. The managers' estimate of the subordinates' preferred climate.

5. A comparison of managers' perceived climate to subordinates' perceived climate.

6. A comparison of managers' perceived climate to managers' estimate of subordinates' preferred climate.

7. A comparison of managers' estimate of subordinates' preferred climate to subordinates' preferred climate.

8. A comparison of subordinates' perceived climate to subordinates' preferred climate.

Frequency histograms were prepared for each of four variables related to climate, items 1 through 4 above. In addition, the four paired comparisons per items 5 through 8 were created. Since this was not part of the research project, only one of the resultant diagrams, Figure 10, is included here for illustrative purposes. In addition, the results and conclusions will be briefly summarized.

A summary of the findings follows:

1. The managers' perception of job climate tends to cluster, with 38 percent of the managers perceiving the climate as highly conditional, 39 percent as slightly conditional, 13 percent as slightly collaborative, and 10 percent as highly collaborative (see Figure 10).
Fig. 10 A comparison of number of managers and their perception of job climate with number of managers and their subordinates' perception of job climate.
2. The subordinates’ perception of job climate tends to follow a bell curve distribution heavily skewed to the collaborative side of the scale—76 percent on collaborative side of zero with number of managers at zero (15) excluded (see Figure 10).

3. The subordinates’ preference of job climate tends to cluster at mid-scale—72 percent within the slightly conditional or collaborative range, with only 17 percent preferring highly collaborative and 11 percent preferring highly conditional job climates. The cluster is skewed to the collaborative side of the scale, 64 percent on collaborative side with number of managers at zero (9) excluded.

4. The managers’ estimate of their subordinates’ preferred climate as in item 1 above, shows a tendency to cluster, with 20 percent of the managers estimating that their subordinates would prefer a highly conditional climate, 21 percent a slightly conditional climate, 19 percent a slightly collaborative climate, and 40 percent a highly collaborative climate.

5. A comparison of managers’ perceived climate to subordinates’ perceived climate shows a dicotomy. Managers perceive climate as being conditional, whereas subordinates perceived climate as being collaborative.

6. A comparison of managers’ perceived climate to managers estimate of subordinates’ preferred climate results
in a second dicotomy. Managers perceive subordinates as preferring a climate much more collaborative than they perceive the climate as being.

7. A comparison of managers' estimates of subordinates' preferred climate with what subordinates indicate they would prefer produced a third dicotomy. Managers estimate that subordinates would prefer a climate that is more collaborative than subordinates indicate they want.

8. Subordinates within the population indicate that their perception of the climate matches their preference for the climate.

In summary, the data seems to indicate that job satisfaction rests primarily on job design providing feedback on job performance and a match between the subordinates' perceived and preferred job climate. Secondarily, the data seems to indicate the managers' perceptions of job climate and their estimates of what subordinates prefer is grossly in error.

**Summary of Findings**

The purpose of the study was to determine the relationship between versatility, that is, an individual's ability to adjust their behavior to the needs of their subordinates, and their demographic characteristics, job function, hierarchal level, job climate, performance feedback, and job satisfaction. No such statistically
significant correlation was found. All hypotheses but two were rejected due to lack of statistical proof of correlation or due to nonhomogeneity of the sample population. The accepted hypotheses were that

(1) no correlation would exist between versatility and age and educational level and,

(2) no correlation between versatility and educational level.

Secondary results, not part of the study, indicate a very strong relationship between job satisfaction and performance feedback from job design when there is a good match between subordinates' perceived and preferred climate.
CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The results of the study provide no support for the hypothesis that managers' ability to adjust their behavior, (versatility) will correlate with job hierarchal level, job climate, job satisfaction, performance feedback, work experience, and supervisory experience. In addition, the statistical evidence supporting the hypothesis that versatility would show no correlation to sex and race was rejected due to the extreme dominance of white males in the sample population. Further, the hypothesis that versatility would cluster by job function was statistically rejected. Only the two hypotheses that versatility would not correlate to age and that versatility would not correlate to educational level were accepted.

These results do not indicate whether failure to support the hypotheses lies in the general belief that effective managers need to adjust their behavior to meet the needs of both the situation and of their subordinates or in the specific behavioral characteristic used in this study versatility. Fielder, Vroom, Gordon, Hersey, Blanchard, Blake, Mouton, and others previously presented in Chapters I and II clearly identify managers' need to alter their
behavior, to have style range, to be flexible, to be adaptable, and to be versatile.

Despite these earlier findings, it is believed that the versatile behavior variable is probably responsible for rejection of the hypothesis. This is based on the subtlety of versatile behavior itself. In this study, for example, the managers perceived the job climate within their organization as being decidedly conditional while estimating that their subordinates would prefer a decidedly collaborative climate. At the same time, the managers are adjusting their behavior to create a climate that their subordinates interpret as being mildly collaborative, which is exactly what the subordinates want. This highly desirable occurrence, coupled with the high versatility scores of this group of managers compared to the normal population, suggest the need for further research to determine the extent to which this type of behavioral characteristic (versatility) moderates the effect of managerial behavior on various criteria, one of which is job climate.

Although not statistically proven, versatility tends to vary with job level, that is, the higher the job in the hierarchy, the greater the versatility of the manager occupying that position. Since this is consistent with the findings of Hersey and Blanchard, further research is suggested of the relationship of versatility and job level.
The study also showed a strong positive relationship between performance feedback and job satisfaction. Interestingly, of the various elements of feedback, with timeliness, reliability, accuracy as examples, the most important source of feedback for this study's population was job design. This finding reconfirms the findings of many researchers that performance feedback always raises job satisfaction (Kopelman 1982/83; Kim 1976).

In summary, versatility, the ability to temporarily alter behavior to meet the needs of the situation and the needs of subordinates, does not correlate with performance feedback, job climate, job satisfaction, demographic, or job characteristics. However, the managers in this study were more versatile than the general population and behaved in such a manner that they created a job climate that their subordinates' perceived as being what they wanted even though what they thought their subordinates wanted and what they perceived the climate to be were different. In addition, they provided good feedback, resulting in high satisfaction.

The study also reconfirms Likert's earlier study showing the difference in the perception of the managers compared to their subordinates. Managers rarely perceive events or things in the same manner or way that their subordinates perceive the same events or things (Likert 1961). Managers also incorrectly estimate that subordinates
desire a highly collaborative climate, whereas subordinates prefer a middle of the road climate.

**Implications for Management**

One, the most evident research implications stemming from this study is related to the high versatility scores of this study’s group of managers compared to the normal population. It is possible that high versatility scores could be used in the identification and selection of high-potential individuals for management positions.

Two, the data further indicate that the desired range of versatility, on a scale of 0 to 100, should be within 33 to 85, which is one standard deviation on either side of the mean score of 59. Within this study’s management group 96 of the managers’ (70%), fall within the 35 to 80 range.

Three, the subordinates participating in this study indicate that they want a job climate in which there are clearly defined goals, objectives, methods, priorities, guidelines, and guidance. This is contrary to the generally accepted idea by top management that subordinates prefer a climate that is highly collaborative, participatory, and democratic.

Four, organizational behavioral modification programs in order to enhance success, must first determine climate preferences of subordinates from subordinates rather than rely on managerial judgment.
Five, a final implication for management is in the confirmation of performance feedback as critically important to job satisfaction and productivity. High levels of performance feedback always result in increased job satisfaction and job productivity (Kopleman 1982/83). Managers can raise subordinates' job satisfaction and productivity by insuring that the design of their subordinates' jobs includes prompt and accurate feedback of how well the subordinate is accomplishing the goals or results expected of that particular job.

**Recommendations**

There are several recommendations which are appropriate as a result of the findings of this study.

1. Researchers in behavioral science should devote greater effort in the future to investigating the impact of the degree versatility of a manager on job climate, feedback, job satisfaction, and job performance criteria.

2. A further study similar to this one should include the two other behavioral dimensions of the behavioral model--assertiveness and responsiveness--to determine their impact on job climate, feedback, and job satisfaction.

3. If, as has been assumed in these conclusions that the influence of versatile behavior on the job by managers is very subtle, future research may be directed at limiting or delimiting that subtlety. This may be accomplished by
including other variables such as the subordinates’ versatility, assertiveness, and responsiveness.

4. The strong positive relationship between performance feedback and job satisfaction can be expanded to include job performance. There are many studies that conclusively demonstrate that this is true. Future research, however, could include the many elements via which an individual receives feedback, such as the job design, the timing, the accuracy, the amount and other factors to determine the relative importance of each. Is job design, as indicated in this study, the major and/or dominant contributor to overall performance feedback?

5. This study tends to indicate that the particular job climate present is not important as long as it is not highly collaborative nor highly conditional. What appears to be important is that the perceived climate match the preferred climate of the subordinate. Future research in this area clarifying this tendency would be in the design and implementation of organizational behavior modeling and organizational development programs.

6. It is also suggested that further research be directed at exploring the apparent tendency for the amount of versatility to rise as a manager rises within the job hierarchy.

7. As a final direction for future research, it is suggested that this study be replicated with a sample
population more heterogenous, that is, with a statistically significant number of protected group members, to verify the lack of correlation of versatility to demographic characteristics.
APPENDIX A

PARTICIPANT DATA FORM
**PARTICIPANT DATA FORM**

**PLEASE COMPLETE BOTH SIDES OF THIS FORM. USE NO. 2 PENCIL ONLY.**

The information on this form is used for research purposes and to meet government guidelines. It is illegal to discriminate in employment on the basis of race, color, religion, national origin, sex, or age. No part of our procedure is designed, intended, or made for the purpose of denying any individual an equal opportunity for employment or of discriminating in any way against that individual. The information requested on this form is needed for continuing validation study purposes.

### SOCIAL SECURITY OR
SOCIAL INSURANCE NO.

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### AGE

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<td>11</td>
<td>12</td>
<td>13</td>
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</table>

### YEARS OF FULLTIME
EXPERIENCE IN AL.
TYPES OF SALES WORK.

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8 or more

### INDICATE THE NUMBER OF YEARS
FULLTIME EXPERIENCE YOU HAVE
HAD SUPERVISING OTHERS.

- 0
- 1
- 2
- 3
- 4 or more

### HIGHEST GRADE
OF EDUCATION

- 1 or less
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

### PRIMARY FUNCTIONAL
ACTIVITIES

- Training of Personnel
- Finance of Accounting
- Manufacturing or Production
- Sales or Marketing
- Research or Engineering
- General Management

### NUMBER OF DIFFERENT
COMPANIES YOU HAVE
WORKED FOR FULL TIME.

- 0
- 1
- 2...
- 5
- 6 or more

### NAME

Print your social security number in the blank spaces provided, then mark out the corresponding numbers in the grids below (e.g., 10). Fill in the other grids for the information as called for.

### SEX

- Male
- Female

### Indicate which of the following best describes your descent.

- American Indian
- Asian
- Black
- Hispanic
- White
APPENDIX B

DESCRIPTIVE CHECKLIST
Listed below are adjectives that people frequently use for describing themselves and others. If you feel that the word applies to the individual completing this inventory, indicate on the relevant line that it applies to you. If you feel that the word does not apply, or that it would be incorrect to use the word to describe this person, leave the line blank. Please do not use a dictionary when in doubt about a word, use the 7 question mark. There are no right or wrong answers on this list. Please respond to every adjective.

Before mailing, check each column for responses.

Please use No. 2 pencil. Be sure to erase completely any answers you wish to change.

Source: (Mill, Merrill and Reid 1981).
APPENDIX C

SURVEY BOOKLET: MANAGER
C.A.S.E. SURVEY BOOKLET: MANAGER

As part of the C.A.S.E. program we are conducting for you, we would like you to fill out the answer form accompanying this booklet. You will be responding to the same statements about jobs and supervisory practices as your subordinates. However, we are not asking for your opinions; rather we are asking you to predict how your subordinates will respond to each of the statements.

As you complete the survey device, it may be helpful to have in front of you a list of the names of your subordinates. Then, you can refer to this list as you estimate the average of the group’s responses to the questions.

INSTRUCTIONS

This booklet contains 117 statements. The answer form has space for your estimate of group subordinate response to each of these statements. Each page of this booklet contains all the statements to be responded to in one column on the answer form. The first column, for statements 1 through 30 (which appear on page 3 of the booklet), is at the far right side of the answer form. Place the answer form underneath page 3 and line up the arrows and the number 1 and 30 with the matching numbers on the answer form. Follow the same procedure each time you turn to a new page of statements.

USE A #2 PENCIL to fill out the form. Mark one answer for each statement in the booklet. If you change your mind, be sure to erase your first answer.

For each statement, you should blacken one block of letters on the answer form according to how you think your subordinates will respond; that is, blacken SA if you think they will “strongly agree,” A if you think they will “agree,” D if you feel they will “disagree,” and SD if you estimate their response will be “strongly disagree.” These phrases and their abbreviations are listed on the answer form for reference purposes.

EXAMPLE: If you feel most of your employees would “agree” with the statement, “I feel I am rewarded fairly for what I do,” you would blacken A on the answer form number that matches this statement.

Before beginning, please fill in the indicated information on the reverse side of the answer form including name, sex, age, and sign the form on the appropriate line. On the front side of the answer form, also please fill in your name, company name, street address and complete the social security grid. Make sure you have filled in your name on the response form, because this is the only means we have to identify it.

Thank you for your cooperation.
HUMAN RELATIONS OPINIONS: MANAGER

In this section you will find a number of statements about human relations. Some of the statements are very extreme. Many of the statements are about relations between a supervisor — any supervisor — and his/her subordinates. That is, the statements are about job situations in general, not about your specific job situation. Your subordinates were asked to give their general opinions about these statements. Please respond to the statements the way you think your subordinates, on the average, will respond. Proceed now to the opposite page which begins the list of statements. Be sure to mark one answer for each statement.
1. Supervisors who suppress as many grievances as possible are most likely to obtain the benefits of maintaining good discipline.

2. Eliminating all differences in status that do not depend upon organizational level will result in more effective management.

3. A supervisor should reward personal loyalty at least as much as job accomplishment.

4. Almost anyone can succeed in almost any kind of job if they try hard enough.

5. The most frequent fault in applying discipline is the supervisor’s inclination to be too easy on people.

6. Most employees are very ambitious for rapid promotions.

7. Supervisors should make it plain that their authority is absolute.

8. Communication problems will be eliminated by telling employees why things have been done.

9. An adequate human relations program will satisfy the desires of most workers.

10. In disciplining an employee, a supervisor should use his superior power to persuade the employee to accept his reasoning.

11. A good way to correct another person’s fault is to bring it to his attention frequently.

12. A primary goal of discipline is to clarify lines of authority.

13. In order to produce good discipline, increase productivity, and decrease laxness in his group, a supervisor must continually insist on all of his management rights.

14. The most important factor in developing successful subordinates is picking a person who has a natural ability to learn the job.

15. In order to reduce many petty requests, supervisors should suppress gripes whenever possible.

16. Human relations is primarily common sense easily acquired from experience.

17. Intelligent people can be depended on to make accurate vocational choices.

18. All employees will be cooperative if their supervisor knows and carries out sound practices in supervising.

19. There is no limit to the amount a person can learn if he is willing to exert the effort and concentrate on his work.

20. Advice as to the proper course of action should be given generously to workers who come to their supervisor with personal problems.

21. Constant urging and exhorting will cause most employees to produce the desired amount of work.

22. A supervisor can handle his subordinates most effectively by being frank at all times.

23. The best way to predict how a person will do on the job is to discover what his interests are.

24. People fall into distinct classes with respect to mental traits.

25. The first duty of the supervisor when handling a complaint is to quote the company rule.

26. In enforcing discipline, it is important for a supervisor to recognize that his authority on the job is absolute and must remain unquestioned.

27. Personalities should not be allowed to influence the job situation.

28. The ordinary person is able to judge fairly accurately the emotional reaction of a person by watching his facial expression.

29. The length of time a person needs to learn to do a job satisfactorily depends only on the difficulty of the job.

30. The most important thing about a supervisor’s job probably is developing subordinates through training.
WORK SETTING OPINION: MANAGER

This section contains statements about work settings. Your subordinates were asked to respond to the items in terms of how accurately each item described their work situation. Please try to respond to the items the way you think your subordinates, on the average, will respond. Proceed to the next page.
Before beginning this page, make sure you've read the instructions on the opposite page.

31. I am permitted to decide on my own how I'm going to get my job done.

32. There are rules and procedures for me to follow in performing my work.

33. In my opinion most important decisions about running this organization are made by one person.

34. There is little opportunity for me to change things in my work situation.

35. I need some direction and follow up to get my job done.

36. I enjoy the work I perform.

37. I believe I am my own boss.

38. My work requires me to do many different things, using a variety of skills and talents.

39. The work I perform is so arranged that I do not have a chance to do an entire piece of work from beginning to end.

40. I can influence my superiors about the way my work should be performed.

41. I know where I stand with my supervisor.

42. I more or less control my own future advancement.

43. I have freedom to organize my own work schedule.

44. The work I perform is likely to affect the lives or well being of other people.

45. I am encouraged to take independent initiative to get my job done as I see fit.

46. No one seems to notice if I do a good job unless I call attention to it.

47. I use personal time off the job to improve my skills and knowledge for my work.

48. The work I perform is not very significant or important in the broader scheme of things.
This section of the report presents a number of statements primarily having to do with job communications. Please respond to the statements the way you think your subordinates, on the average, will respond. You will notice that a number of the questions overlap with one another. The overlap helps us know exactly how the person responding feels about any particular question. Please answer each question as you come to it without worrying about previous questions. Proceed to the next page.
<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
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<tbody>
<tr>
<td>49.</td>
<td>I feel that the most important aspects of my job performance are measured very well.</td>
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<tr>
<td>50.</td>
<td>The coaching help I get from my supervisor sometimes comes at the wrong time or in the wrong place.</td>
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<td>51.</td>
<td>The information I receive about my job performance is pretty closely tied to whether or not my income increases.</td>
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<td>52.</td>
<td>The same job error on my part could lead to quite different reactions from my supervisor at different times.</td>
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<td>53.</td>
<td>I almost always know how to utilize the advice I get from my supervisor.</td>
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<td>54.</td>
<td>Just doing the work required by the job provides many chances for me to figure out how well I am doing.</td>
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<td>55.</td>
<td>The information I receive about my job performance is pretty closely tied to whether or not my income increases.</td>
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<td>The same job error on my part could lead to quite different reactions from my supervisor at different times.</td>
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<td>70.</td>
<td>Just doing the work required by the job provides many chances for me to figure out how well I am doing.</td>
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<td>71.</td>
<td>The information I receive about my job performance is pretty closely tied to whether or not my income increases.</td>
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<td>72.</td>
<td>The same job error on my part could lead to quite different reactions from my supervisor at different times.</td>
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<td>I almost always know how to utilize the advice I get from my supervisor.</td>
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Before beginning this page, make sure you've read the instructions on page 6.

77. Good performance in my job receives recognition by management.
78. If my performance falls short in some area, I pretty much know how my supervisor will react.
79. My job performance is measured very poorly.
80. My supervisor almost never gives me any information about how I am doing.
81. Performance evaluations make me feel anxious.
82. I don't think another supervisor would evaluate my performance much differently than my current supervisor.
83. I often wish my supervisor would tell me sooner how well I'm doing.
84. I know very well what my supervisor thinks of my performance and accomplishments.
85. The rewards that I receive for my work are very closely related to my job performance.
86. Just doing the work required by the job provides me with almost no chance to figure out how well I am doing.
87. My supervisor and I sometimes disagree about how satisfactory my achieved results are.
88. I sometimes have difficulty knowing what use to make of my supervisor's advice to me.
89. I would like to have more feedback from my supervisor about my job performance.
90. The thought of getting a performance evaluation from my supervisor.
91. The measures used to evaluate my job performance are very appropriate.
92. I think my supervisor uses the same rules to evaluate my performance and the performance of my fellow workers.
93. My supervisor seldom seeks out my point of view about job related issues.
94. If it were up to me, I would not change the timing of the information I get from my supervisor about my job performance.
95. My supervisor rarely takes the time to find out how I feel about work related matters.
96. I find it very easy to understand the guidance I get from my supervisor.
97. I think my supervisor is very open to new ideas and new ways of doing things.
98. The information I receive about my job performance has little bearing on whether or not my income increases.
99. The job itself provides very few clues about whether or not I am performing well.
100. My supervisor usually seeks out my point of view about job related issues.
101. The same job error on my part generally leads to the same reaction from my supervisor.
102. The directions I get from my supervisor are always very helpful.
103. My supervisor usually takes the time to find out how I feel about work related matters.
JOB ATTITUDES: MANAGER

This is the final part of the report and contains statements having to do with your subordinates' feelings about their jobs. Please respond to the items the way you think your average subordinate will respond. You will find overlap among these statements just as in the previous section. Proceed to the next page.
Before beginning this page, make sure you've read the instructions on the opposite page.

104. All things considered, this is a nice place to work.

105. I feel I am rewarded fairly for what I do.

106. I often wish my job were more satisfying.

107. I believe I do my present job rather well.

108. I have a very comfortable relationship with all of my fellow workers.

109. Some people would consider my job environment unattractive.

110. My working relationships with people in management are somewhat ineffective.

111. I have one of the more satisfying jobs I know about.

112. I do not get along very well with some of my fellow workers.

113. Most people would agree that my job environment is an attractive one.

114. I feel I am not rewarded fairly for what I do.

115. My situation makes it very difficult or impossible for me to perform my job satisfactorily.

116. I often think there must be better places to work.

117. Most of my working relationships with people in management are effective.
APPENDIX D

SURVEY BOOKLET: RESPONDENT
As part of the C.A.S.E. training program we are conducting for your manager, we would like you to fill out the response form that accompanies this C.A.S.E. Survey Booklet. The booklet asks you to respond to a number of statements related to jobs and supervisory practices. The purpose of this survey is to provide your supervisor with information about your perceptions and attitudes on these matters. The survey results should be helpful to your supervisor in developing his or her human relations skills and effectiveness in management.

This survey is being conducted according to these rules:
1. **No one** in the organization will see your survey responses.
2. Results are reported so that **no** possible identification of an individual can occur.

Both you and your supervisor will gain the most benefit possible from this survey by your true evaluation of each statement.

You should be able to fill out the answer form in 20-30 minutes.

**INSTRUCTIONS**

This booklet contains 117 statements divided into four sections. The answer form that accompanies the booklet has space for your reaction to each of these statements. Each page of this booklet contains all the statements to be responded to in one column on the answer form. The first column, for statements 1 through 30 (which appear on page 3 of the booklet), is at the far right side of the answer form. Place the answer form underneath page 3 and line up the arrows and the numbers 1 and 30 with the matching numbers on the answer form. Follow the same procedure each time you turn to a new page of statements.

**USE A #2 PENCIL** to fill out the form. Mark **one** answer for each statement in the booklet. If you change your mind, be sure to erase your first answer.

For each statement you should blacken one block of letters on the answer form according to how you feel about it; that is, blacken SA if you "strongly agree" with the statement, A if you "agree," D if you "disagree" or SD if you "strongly disagree" with the statement. These phrases and their abbreviations are also listed on the answer form for reference purposes.

**EXAMPLE:** If you “agree” with the statement, "I feel I am rewarded fairly for what I do," you would blacken A on the answer form number that matches this statement.

At the bottom left of the answer form you will see your organization’s name and your supervisor’s name and social security number. That is the only identification associated with your responses.

The survey is being conducted by the Personnel Predictions and Research Division of the TRACOM Corporation. On behalf of your supervisor, and your company, we thank you for your cooperation.
HUMAN RELATIONS OPINIONS

In this section you will find a number of statements about human relations. Some of the statements are very extreme. Many of the statements are about relations between a supervisor—any supervisor—and his/her employees. That is, the statements are about job situations in general, not about your specific job situation. Therefore, please give your general opinions about these statements. We are interested in knowing whether you agree or disagree with each statement in general. In a later section you will have the opportunity to judge statements as they relate to your particular job. Now please proceed to the next page (page 3) that begins the list of statements. Be sure to mark one answer for each statement.
Before beginning this page, make sure you've read the instructions on the opposite page.

1. Supervisors who suppress as many grievances as possible are most likely to obtain the benefits of maintaining good discipline.
2. Eliminating all differences in status that do not depend upon organizational level will result in more effective management.
3. A supervisor should reward personal loyalty at least as much as job accomplishment.
4. Almost anyone can succeed in almost any kind of job if they try hard enough.
5. The most frequent fault in applying discipline is the supervisor's inclination to be too easy on people.
6. Most employees are very ambitious for rapid promotions.
7. Supervisors should make it plain that their authority is absolute.
8. Communication problems will be eliminated by telling employees why things have been done.
9. An adequate human relations program will satisfy the desires of most workers.
10. In disciplining an employee, a supervisor should use his superior power to persuade the employee to accept his reasoning.
11. A good way to correct another person's fault is to bring it to his attention frequently.
12. A primary goal of discipline is to clarify lines of authority.
13. In order to produce good discipline, increase productivity, and decrease laxness in his group, a supervisor must continually insist on all of his management rights.
14. The most important factor in developing successful subordinates is picking a person who has a natural ability to learn the job.
15. In order to reduce many petty requests, supervisors should suppress gripes whenever possible.
16. Human relations is primarily common sense easily acquired from experience.
17. Intelligent people can be depended on to make accurate vocational choices.
18. All employees will be cooperative if their supervisor knows and carries out sound practices in supervising.
19. There is no limit to the amount a person can learn if he is willing to exert the effort and concentrate on his work.
20. Advice as to the proper course of action should be given generously to workers who come to their supervisor with personal problems.
21. Constant urging and exhorting will cause most employees to produce the desired amount of work.
22. A supervisor can handle his subordinates most effectively by being frank at all times.
23. The best way to predict how a person will do on the job is to discover what his interests are.
24. People fall into distinct classes with respect to mental traits.
25. The first duty of the supervisor when handling a complaint is to quote the company rule.
26. In enforcing discipline, it is important for a supervisor to recognize that his authority on the job is absolute and must remain unquestioned.
27. Personalities should not be allowed to influence the work situation.
28. The ordinary person is able to judge fairly accurately the emotional reaction of a person by watching his facial expression.
29. The length of time a person needs to learn to do a job satisfactorily depends only on the difficulty of the job.
30. The most important thing about a supervisor's job probably is developing subordinates through training.
WORK SETTING OPINIONS

This section contains statements about work settings. Give us your opinion about how accurately the statements describe your present work situation. If a statement very accurately describes your work situation mark "strongly agree" and so on. Please proceed to the next page.
31. I am permitted to decide on my own how I'm going to get my job done.

32. There are rules and procedures for me to follow in performing my work.

33. In my opinion most important decisions about running this organization are made by one person.

34. There is little opportunity for me to change things in my work situation.

35. I need some direction and follow up to get my job done.

36. I enjoy the work I perform.

37. I believe I am my own boss.

38. My work requires me to do many different things, using a variety of skills and talents.

39. The work I perform is so arranged that I do not have a chance to do an entire piece of work from beginning to end.

40. I can influence my superiors about the way my work should be performed.

41. I know where I stand with my supervisor.

42. I more or less control my own future advancement.

43. I have freedom to organize my own work schedule.

44. The work I perform is likely to affect the lives or well-being of other people.

45. I am encouraged to take independent initiative to get my job done as I see fit.

46. No one seems to notice if I do a good job unless I call attention to it.

47. I use personal time off the job to improve my skills and knowledge for my work.

48. The work I perform is not very significant or important in the broader scheme of things.
JOB COMMUNICATIONS OPINION

This section of the report presents a number of statements primarily having to do with job communications. Please respond to the statements in terms of how well they describe your opinions about your current position. You will notice that a number of the questions overlap with one another. The overlap helps us know exactly how you feel about any particular question. Please answer each question as you come to it without worrying about previous questions. Proceed to the next page.
49. I feel that the most important aspects of my job performance are measured very well.

50. The coaching help I get from my supervisor sometimes comes at the wrong time or in the wrong place.

51. The information I receive about my job performance is pretty closely tied to whether or not my income increases.

52. The same job error on my part could lead to quite different reactions from my supervisor at different times.

53. I almost always know how to utilize the advice I get from my supervisor.

54. Just doing the work required by the job provides many chances for me to figure out how well I am doing.

55. If two different people were to judge how well I am doing on my job, it would be very easy for them to be in complete agreement.

56. I sometimes find it very hard to understand the guidance I get from my supervisor.

57. I look forward to getting feedback from my supervisor about my job performance.

58. My supervisor provides me with an excessive amount of information about how I am doing.

59. If my performance falls short in some area there is no way of telling how my supervisor will react.

60. I often feel that specific directions in how to do my job are lacking.

61. My supervisor and I are in very good agreement about how satisfactory my achieved results are.

62. The job itself provides many clues about whether or not I am performing well.

63. The rewards that I receive for my work depend very little on my job performance.

64. I have a very good understanding of what is expected of me in my current position.

65. If two different people were to judge how well I am doing on my job, they would be likely to disagree.

66. The coaching help I get from my supervisor usually comes at the most appropriate time and place.

67. I sometimes feel pretty low after having talked to my supervisor about how I'm doing.

68. I feel that the most important aspects of my job performance never get measured.

69. On occasion, I would like to have less feedback from my supervisor about my job performance.

70. The directions I get from my supervisor are not always helpful to me in my job.

71. Even when I think I do this job well I have no real idea whether or not my work is satisfactory.

72. I have only a vague idea what my supervisor thinks of my performance and accomplishments.

73. I generally feel very good after having talked to my supervisor about how I'm doing.

74. My supervisor provides me with just the right amount of information about how I'm doing.

75. My job performance is measured very accurately.

76. I would not be inclined to change the time lapse between job performance and my supervisor's evaluation of that performance.
77. Good performance in my job receives recognition by management.

78. If my performance falls short in some area I pretty much know how my supervisor will react.

79. My job performance is measured very poorly.

80. My supervisor almost never gives me any information about how I am doing.

81. Performance evaluations make me feel anxious.

82. I don't think another supervisor would evaluate my performance much differently than my current supervisor.

83. I often wish my supervisor would tell me sooner how well I'm doing.

84. I know very well what my supervisor thinks of my performance and accomplishments.

85. The rewards that I receive for my work are very closely related to my job performance.

86. Just doing the work required by the job provides me with almost no chance to figure out how well I am doing.

87. My supervisor and I sometimes disagree about how satisfactory my achieved results are.

88. I sometimes have difficulty knowing what use to make of my supervisor's advice to me.

89. I would like to have more feedback from my supervisor about my job performance.

90. I dislike the thought of getting a performance evaluation from my supervisor.

91. The measures used to evaluate my job performance are very appropriate.

92. I think my supervisor uses the same rules to evaluate my performance and the performance of my fellow workers.

93. My supervisor seldom seeks out my point of view about job related issues.

94. If it were up to me, I would not change the timing of the information I get from my supervisor about my job performance.

95. My supervisor rarely takes the time to find out how I feel about work related matters.

96. I find it very easy to understand the guidance I get from my supervisor.

97. I think my supervisor is very open to new ideas and new ways of doing things.

98. The information I receive about my job performance has little bearing on whether or not my income increases.

99. The job itself provides very few clues about whether or not I am performing well.

100. My supervisor usually seeks out my point of view about job related issues.

101. The same job error on my part generally leads to the same reaction from my supervisor.

102. The directions I get from my supervisor are always very helpful.

103. My supervisor usually takes the time to find out how I feel about work related matters.
This is the final part of the report and contains statements having to do with your feelings about your job. Please respond to each item in terms of your opinion about your current position. You will find overlap among these statements just as in the previous section. Please proceed to the next page.
Before beginning this page, make sure you've read the instructions on the opposite page.

104. All things considered, this is a nice place to work.

105. I feel I am rewarded fairly for what I do.

106. I often wish my job were more satisfying.

107. I believe I do my present job rather well.

108. I have a very comfortable relationship with all of my fellow workers.

109. Some people would consider my job environment unattractive.

110. My working relationships with people in management are somewhat ineffective.

111. I have one of the more satisfying jobs I know about.

112. I do not get along very well with some of my fellow workers.

113. Most people would agree that my job environment is an attractive one.

114. I feel I am not rewarded fairly for what I do.

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