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Leadership Effectiveness in Education as Related to Congruence between Human Behavior Types and Leadership Styles

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LEADERSHIP EFFECTIVENESS IN EDUCATION AS RELATED TO CONGRUENCE BETWEEN HUMAN BEHAVIOR TYPES AND LEADERSHIP STYLES

by

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CHAPTER I

THE PROBLEM AND HYPOTHESES

There is general agreement that leadership is essential to business, education, government and other social institutions that shape the way we live, work and play. Billions of dollars are spent annually on leadership development in a variety of work settings in the United States. Leadership is the catalytic component of any organization. Leaders often are paid salaries far in excess of ordinary workers. Leadership as a function has been actively researched since the early thirties (Flinders, 1969, p. 153) by members of the armed forces, sociologists, business leaders, leaders of governmental agencies, educational leaders, psychologists and others. Thousands of books and articles have been published, yet leadership continues to be "one of the most hazy and perplexing notions in the behavioral sciences" (Stout, 1969, p. 688).

Central Theme

To achieve leadership effectiveness in a work situation, it is important that the style of management "suits the behavior of the group of workers being managed." This assertion encapsulated a central theme for some of the research conducted by Graves (1966; 1968) in his theory to increase managerial productivity. To see whether or not that theory was applicable to an educational setting was the interest of this study. In other words, was Graves' theory for more productive management in business and industry transferrable to an educational

setting for the improvement of leadership effectiveness of superintendents in public school systems?

Graves' (1966) theory was reportedly tested in business and industry and had, at the time of reporting, fourteen years of research work to support it. He suggested that compatibility of the leader's style with the behavior type of the led would result in greater work productivity than would be found where "style/type" pairings were considered incompatible. He described several behavior types, based on a hierarchical arrangement of motives and values, and proposed leadership styles to match those types.

The important difference between Graves' (1966) theory and the bulk of other related research on leadership was his linkage of psychologically appropriate leadership styles of leaders to identifiable types of behavior of those led. A major portion of existing leadership research has treated the led as a constant (Graves, p. 125). Blake and Mouton's "Managerial Grid" (1964) and McGregor's "Theory X" and "Theory Y" (1960) were two well known theories with underlying management assumptions that workers can be managed as single personality prototypes. Graves studied various behavioral patterns of "those being managed," attempted to analyze the psychological basis for those patterns, and subsequently suggested styles of leadership that were psychologically compatible (congruent) with those behavioral types. The significance of his theory was expressed in the belief that compatible relationships between a leader's leadership style and the behavior type of those led would result in greater "work productivity" for the organization.

Therefore, the central theme of this study was educational leadership effectiveness, in a work situation, through the use of leadership styles appropriate to different behavioral types of people. The leadership sample consisted of 104 superintendents of public school systems, and included over 700 "interactors" associated with those superintendents. Those educational leaders were responsible for educational programs for nearly 400,000 children in Southwestern Michigan. The central objective was to determine whether congruence between perceived leadership styles and behavior types resulted in interactor effectiveness scores for public school superintendents that were significantly higher than scores obtained when style/type patterns were incongruent.

Problem Statement

The problem, in question form, asks, "Are 'Effectiveness' rating scores of superintendents higher when perceptions of 'Leadership Style' and 'Behavior Type' are congruent than when perceptions of those 'style/type' pairings are incongruent?"

Structure of Hypotheses

There are 25 statements of hypotheses associated with the problem. Each hypothesis specifies (1) whose perception of leadership style and behavior type is to be considered, and (2) which of the five congruent style/type relationships is to be used. Each hypothesis involves comparing and testing two sets of effectiveness ratings. Those ratings relate only to the performance of superintendents. One set consists of rating scores from congruent style/type relationships and the other from scores representing incongruent relationships, as per the perceptual point

of view indicated. Effectiveness scores from congruent style/type relationships were hypothesized to be higher than incongruent relationship scores.

The concern for brevity and the desire to call attention to a number of discriminating relationships was satisfied by organizing and stating the hypotheses in two sets. The first set of statements ("P" series, so named for their association with Perception) recognize and specify five different perceptions, and suggests, in a general way, the use of congruent style/type pairings within parameters of those perceptions. The second set are sub-statements ("LB" series, so named for their association with Leadership styles and Behavior types) that specifically identify five hypothesized congruent style/type relationships. Each of these LB sub-statements is to be incorporated into each of the five P statements, thus constituting a total of 25 separate and distinct hypotheses.

The P series of statements are numbered in Roman numerals "P-I" through "P-V," whereas, the LB sub-statements are numbered consecutively in Arabic numbers, "LB-1" through "LB-25." For instance, sub-statements "LB-1" through "LB-5" are listed under statement "P-I," "LB-6" through "LB-10" are listed under statement "P-II," "LB-11" through "LB-15" are listed under statement "P-III," and so forth.

Because the congruent style/type relationships stated in the LB sub-statements are the same for each of the five P statements, it is possible to eliminate unnecessary repetition by stating the LB series under "P-I" only. This abbreviated format is so arranged with the tacit understanding that the LB series is also to be included in

statements "P-II" through "P-V." To insure that understanding a reminder (in parentheses) is given following statements "P-II" through "P-V."

Hypotheses

The statements of hypotheses are as follows:

P-I. The Interactors' rating of Superintendent effectiveness will be higher (than for non-congruent pairings) if the Interactor's perception of his own behavior type is a type that is congruent with the Superintendent's interpretation of his own leadership style.

LB-1. Scores will be higher if the Leadership Style is "Traditional" and the Behavior Type is "Awakening."

LB-2. Scores will be higher if the Leadership Style is "Prescriptive" and the Behavior Type is "Aggressive Power-seeking."

LB-3. Scores will be higher if the Leadership Style is "People centered" and the Behavior Type is "Socio-centric."

LB-4. Scores will be higher if the Leadership Style is "Transactional" and the Behavior Type is "Aggressive, individualistic."

LB-5. Scores will be higher if the Leadership Style is "Supportive" and the Behavior Type is "Pacifistic, individualistic."

P-II. The Interactors' rating of Superintendent effectiveness will be higher (than for non-congruent pairs) if the Superintendent's perception of the Interactor's behavior type is a type that is congruent with the Interactor's perception of the Superintendent's leadership style.

(Sub-statements numbered "LB-1" through "LB-5," renumbered "LB-6" through "LB-10," relate also to Hypothesis "P-II.")

P-III. The Interactors' rating of Superintendent effectiveness will be higher (than for non-congruent pairings) if the Superintendent's perception of his own leadership style is a style that is congruent with the Superintendent's perception of each Interactor's behavior type.

(Sub-statements numbered "LB-1" through "LB-5," renumbered "LB-11" through "LB-15," relate also to Hypothesis "P-III.")

P-IV. The Interactors' rating of Superintendent effectiveness will be higher (than for non-congruent pairings) if each Interactor's perception of his own behavior type is a type that is congruent with his perception of the Superintendent's leadership style.

(Sub-statements numbered "LB-1" through "LB-5," renumbered "LB-16" through "LB-20," relate also to Hypothesis "P-IV.")

P-V. The Interactors' rating of Superintendent effectiveness will be higher (than for non-congruent pairings) if Superintendents and respective Interactors mutually perceive the Interactors' behavior type to be a type that is congruent with their mutual perceptions about the Superintendent's leadership style.

(Sub-statements numbered "LB-1" through "LB-5," renumbered "LB-21" through "LB-25," relate also to Hypothesis "P-V.")

Figure 1 illustrates the many perceptual relationships expressed in the five preceding "P" statements. The numbers in each of the connector line boxes [P-IV] correspond with the numbers prefacing each

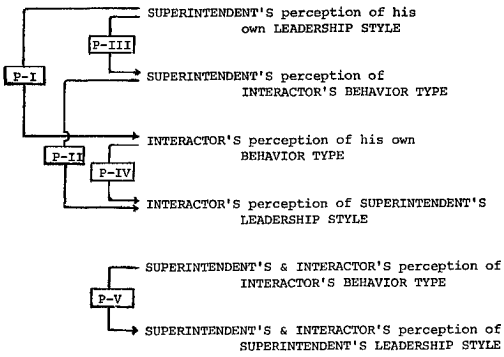

Figure 1

Combinations of Perceptions Analyzed in "P" Statements I-V

"P" hypothesis, and serve to more clearly identify the comparative relationships stated in the respective statements of hypotheses with those numbers.

Assumptions and Limitations

There were several necessary assumptions and limitations in this investigation. They included reliability concerns associated with empirical research regarding consistency of opinions and attitudes. They also included assumptions relating to the validity of the data and the instrument for collection of the data. There were physical limitations of finances and time, as well as those limitations always associated with behavioral research. Some of the major assumptions and limitations are stated in this section.

Assumptions

It was assumed that the subjects of this study possessed adequate ability to recognize behavior types and leadership styles according to the guidelines presented to them. The logic assumed a high level of acuity from people holding the various positions identified in the study. Associated with that assumed acuity was an expected ability to cognitively perceive and make discriminating judgments about behavioral values, motives, abilities, traits, and skills, as outlined in the survey instrument.

No statistical validity is claimed for the evaluative criteria of effectiveness used in the instrument (Appendix B, Part II). To the knowledge of this investigator, none exist. However, the items in the instruments have been used extensively in other instruments with apparent

satisfaction, thus an assumption of validity may be attributed to this part of the instrument.

The various motivation and value systems suggested by Graves (1966) seemed to possess sufficient support from accepted principles of psychology to establish their reliability as predictors of behavior. Each of those respective systems, when dominant in a person's educational work environment, was assumed to be sufficiently imbedded in a person's personality structure to warrant its use as a valid criterion for behavior type identification and classification.

The desire of superintendents to be effective seemed unquestioned. There was a unilateral assumption that superintendents were interested in creating conditions whereby (1) citizens of the community would be motivated to cooperate with the schools, (2) administrators and other staff members would be motivated to develop the most helpful and effective administrative and auxiliary services, and (3) members of school boards and other school community groups would be motivated to use their positions to influence individual and collective student achievement.

It was assumed that the research data collected would reveal situations of both congruence and incongruence between behavior type classifications of interactors and leadership styles of superintendents. It was further assumed that both effective and ineffective scores of superintendent performance would be revealed.

Limitations

The complexities of accurately and objectively interpreting human behavior plus the problems associated with assessment of leadership effectiveness were major considerations of reliability. The almost

inevitable fluctuation of opinions and attitudes tends to impose certain limitations on any empirical type of research. The bounds of these limitations include perpetual changes in educational thought as well as changes in social thought, standards, and values. These existing limitations are acknowledged.

Another recognized limitation of this research was the necessity for very brief behavior type and leadership style descriptors. The intent of such brevity was to keep to a minimum the required time that a subject had to spend to complete the questionnaire.

The selected sample was limited primarily because of available financial resources for printing and mailing costs of the instrument. Desired follow-up procedures also were limited to one letter for the same economic reason. Cost factors imposed restrictions of not sending additional correspondence, making phone calls or making personal visits to subjects who failed to respond to the questionnaire.

Significance

This study was deemed important for the following reasons: (1) it suggested potential for increasing leadership effectiveness through a better understanding and utilization of leadership style; (2) it further investigated relationships of the leader, the led and the situation; (3) it attempted to extend research into an area (Education) other than that in which the theory was developed, thus generalizing the theory to a broader base of application; (4) it was research with promise for contributing to the development of overall leadership theory; and (5) it initiated educational research in an area heretofore seemingly unexplored.

There seems to be widespread agreement among authorities that leadership theory is a series of statements regarding relationships among the leader, the led and the situation. While this study did not focus on leadership theory per se, the hypotheses infer that certain relationships of the leader and the led, in a work situation, result in more effective performance than other relationships. If the stated hypotheses hold, the direction of some subsequent leadership research may well be channeled in a similar direction, and ultimately lead to the acceptance of leadership theory that is viable.

While there is acceptance for the above stated generalization about the necessity for relationships among leader, led and situation, there apparently is little specific research which demonstrates what those relationships should be. Relatively few attempts have been made in social science research to analyze and categorize behavior and then recommend appropriate leadership styles compatible with specific behaviors. The paucity of research literature suggesting specific leader-led relationships in educational leadership seemed to warrant further investigation.

This study is believed to be among the first to examine specific "style/type" relationships in an educational setting. At the outset of this investigation, a review of educational research literature left this writer convinced that Graves' theory, which had had exposure in business and industry, had not been tested in the field of educational leadership. It was hypothesized that significant differences between congruent and incongruent scores for people in education would broaden the application of Graves' theory. The working environments of business

and industry are often quite different from those in education. Yet, there are those who quickly suggest that leadership skills should be transferable if the required skills are sufficiently learned by the appointed leader. It was believed that if the findings of this study were to corroborate those of Graves regarding leadership style and behavior type congruity, then such findings would tend to generalize his theory more widely and add to its validity.

If the proposed leadership styles were found to be related significantly to certain behaviors of people, such relationships could mean a new focus in direction for those programs in leadership training institutions. Positive findings could provide encouragement to leaders to develop and use a variety of leadership styles.

If the results of the central objective turned out as hypothesized, those findings could be of significance not only for the improvement of leadership at the superintendent's level, but also for leaders at other administrative and supervisory levels. It was believed those findings could also have application to classroom teachers. Therefore, great potential significance lay in the promise of improved leadership performance. If the study could in any manner lead toward that end, then certainly it would have been significant.

CHAPTER II

REVIEW OF RELATED RESEARCH

This study focused on leadership effectiveness and has required a literature search in at least four interrelated areas: (1) Leadership Theory, (2) Leadership Styles, (3) Behavioral Typologies and Categorizations, and (4) Psychological Dimensions of Personality relative to the influential behavior variables of motives and values. Search in a fifth area to provide a more detailed review of Graves' (1966; 1968) research was deemed essential. Graves considered to some extent each of the above four areas. However, with the present study being a modified application of his theory, it was appropriate that his work be analyzed as a unit.

It was the attempt of this investigator to: (1) examine and report research related to the stated hypotheses, (2) synthesize and report major findings (with attributed reliability status) by prominent authorities in their respective fields, (3) attempt discovery of interrelating, and operational, psychological principles between leadership styles and behavior types, and (4) establish a solid rationale in research literature for the exploratory nature of the study. There were reasons to believe that the research findings would produce a set of guidelines and principles for purposeful exploratory direction into a little known dimension of leadership effectiveness.

Functional leadership studies began less than half a century ago (Flinders, 1969, p. 153) and since that time researchers have amassed

a sizeable body of data about leadership in a wide variety of areas. It has become evident that leadership research has emerged from obscurity to order and from order to an ever-expanding network of interrelationships which should continue to improve our understanding of the phenomenon known as leadership. As the phenomenon of educational leadership gains refinement, becomes more carefully defined, and produces more reliable and congruent relationships through research and experimentation, it should give us greater understanding of how to make educational leadership more effective. It could also mean the impetus for learning how to use more effectively a wider variety of leadership skills; perhaps even to develop new leadership behaviors.

Leadership Theory

Leadership theories have emerged from many disciplines, have been advanced by people in a variety of special interest areas, and have resulted in sundry definitions and theoretical constructs. Among those special interest areas investigated were certain dimensions of sociology and psychology, in addition to educational literature. It was apparent to this investigator that some of the theory development in these two disciplines had transfer value to educational leadership theory, and therefore had pertinence to the interests of this study.

The concentration of this discussion has been "limited" to a single definition of theory and to the theoretical constructs and considerations related to theories of leadership effectiveness. The constructs and concepts examined included theory criteria, function, comprehensiveness, perception, step progression, guidelines and guiding principles.

The function of theory has been described as a way to organize knowledge "into a systematic, orderly body" (Owens, 1970, p. 351). Where there were gaps in that body of knowledge, Owens suggested that the function was to provide guides to researchers for further investigation.

Definitions

Griffiths (1959, p. 27) made the statement that there is no generally accepted definition or use of the word "theory." Notwithstanding that assertion, the framework selected for this study falls under the definition stated by Morris (1969) in the American Heritage Dictionary as follows:

> Systematically organized knowledge applicable in a relatively wide variety of circumstances; especially, a system of assumptions, accepted principles, and rules of procedure devised to analyze, predict, or otherwise explain the nature of behavior of a specified set of phenomena [p. 1335].

This definition of theory is one in which the concept of workability is incorporated, it includes a broad knowledge base and applicable rules, procedures and explanations of phenomenon. This single definition should not be interpreted to preclude or ignore other definitions directly related to leadership theory or to other special interest definitions under the umbrella of theory. It merely provides a parameter for the present investigation.

Many difficulties have contributed to the lack of consensus for theory definition among recognized authorities in the field. Griffiths (1959) and Halpin (1966) both recognized the lack of agreement among authorities with regard to leadership theory. Griffiths (p. 63),

however, did indicate that the work of Barnard (1938) was still a major influence in the development of administrative theory. Barnard's perceptual judgments, perceptive analyses, and ideas regarding executive leadership have long withstood the tests of time. He listed some of his more important conclusions (p. 285-289) in a sixteen point summary of salient propositions to which he invited special attention. They covered broad perspectives of organizational make-up; conditions and considerations for cooperation; formal and informal structures; reasons for equilibrium disturbances; decision considerations; physical, personal and social factors; communication perspectives; moral responsibilities; leadership requirements, and leader selection criteria.

Owens (1970), in his definitive analysis of leadership theory, distinguished between administration and leadership; administration was interpreted as the act of "minding the store" or carrying out the routine requirements of a job, and leadership was defined as the process of bringing about change. He suggested that the administrator who wishes to be an effective leader must give perceptual consideration to three skill elements: (1) strategy, for mapping out plans of what to do, what sequence, and how to achieve one's goals, (2) timing, or the unfolding of the strategy at the proper sequential and psychological moment, and (3) authority, whether it be positional, status, knowledge, authority of procedural expertise, or some other type. "Leaders must," Owens continued, "(1) set goals for the group, (2) develop plans for achieving those goals, and (3) rally support for the goals and the plans for achieving them [pp. 136-138]." Owens' latter assertions might be questioned with the use of certain leadership styles in

certain situations. For instance, "setting goals for the group" can be authoritarian in nature, where the authoritarian type is in conflict with a style where goal-setting is a group activity under the direction of a participation-type leader.

Theory Criteria

There are those who discount theory as "something that looks good on paper, but in reality doesn't work." That assertion sometimes cannot be denied. Theory which cannot be practiced is of doubtful practical value until such time as it is restructured to meet the criterion of "workability." Theoretical constructs need not be buried, however, just because they lack workability. The challenge may be nothing more than to discover whether a theory is workable. It is apparent that leadership theory becomes an active process when a person consciously attempts to use a certain leadership style in a certain situation. In reality, a leadership theory is put into motion when the leader insists that certain procedures be followed, or certain practices be changed, as he deals with the practical problems of the organization.

Graff, et al., (1966) suggested four criteria for the development of leadership theory. The first criterion was that a theory of administration is part "of a larger and more inclusive theory that includes the entire area of social living [p. 65-66]." The second and third criteria were "consistency," and "comprehensiveness." Criterion four was "workability." Graff further stated that theory was an "if-then-probability" idea, that "if this is the way things are, then we do these things to attain these purposes and we should within certain probability limits achieve these results [p. 67]."

Gibb (1954) provided perspective relative to comprehensiveness of leadership theory in his assertion that leadership theory must incorporate such major variables as (1) leader personality, (2) follower attitudes, needs and problems, (3) group interpersonal relationships and syntality characteristics, and (4) the situation [p. 914]. This view gained wide acceptance among authorities in the field, including Fiedler (1967), Bennis and Slater (1968), and Boles (1971, pp. 56-57).

Perception and Leadership Theory

Gibb (1954) refined his theoretical construct and acknowledged the dimension of perception in leadership theory:

> Theory must recognize that it will not be these variables per se which enter into the leadership relation, but that it is the perception of the leader by himself and by others, the leader's perception of those others, and the shared perception by the leaders of the group with which we have to deal [p. 914].

Boles (1971) agreed with Gibb regarding the importance of perception in behavioral studies:

> The present writer agrees that what the leader does, what the followers do, and what the situation is are all less important [in a democracy] than are what the leader is perceived as doing, what the followers are perceived as doing, and the perception of involved parties as to what the situation is [p. 57].

Boles (1971) constructed a table illustrating "how man goes about restricting the elements of a situation to those that are relevant to his purpose [p. 61a]." The table is a series of eight statements arranged in sequential, step progression order from that of a "Guess" to assertions of "FACT" (see Figure 2). The psychological foundation for those eight statements would appear to be varying degrees of information possessed by an individual and the extent to which that

[Assumed][#] FACT selected for relevance from	Principle or Concept	a statement of order or relation so rational or so logical that it is generally accepted as unvariable under varying conditions and seems unlikely to be disproven
	Natural Law or Construct	a statement of order or relation that has been or can be demonstrated to be unvariable under given conditions
THEORY OR SYSTEMS ANALYSIS may include any or all of these	Hypothesis	a statement of possible order or relation accepted tentatively as true for the sake of obtaining evidence
	Supposition or Assumption	a statement of possible order or relation tentatively as true for the sake of argument or exposition
	Speculation	a statement of possible order or relation
	Conjecture	a statement of opinion or judgment
	Surmise	a statement based on imagination or suspicion
	Guess	a statement based on little or no evidence

[#]Word added by this investigator.

Figure 2*

The Place of Theory in Progressing from Guess to Fact

*Source: Boles, H. W. "Leaders, Leading and Leadership: A Theory." Unpublished Manuscript, Western Michigan University, Kalamazoo, Michigan. 1971, p. 61a.

information is assimilated and ordered within one's cognitive and affective psyche. Those statements seem to constitute a logically-defined and orderly hierarchial progression. Perhaps one refinement, however, at the top of the progression would be appropriate. The singular use of the word "FACT" seems unalterably definitive in nature and does not seem to agree with certain words in Boles' definitions or descriptions, such as the words "generally" and "seems unlikely." By prefacing the word "FACT" by the word "Assumed," then the phrase "Assumed Fact" is perhaps more in harmony with the descriptions provided. Irrespective of this minor revision, the statements appear to be logically evolved steps toward epistemological truth.

The perceptions in this study involve one's ability to classify another person and also requires one's judgment of another's effectiveness. The act of classifying is, in one sense, an act of judgment. Taft (1955) reviewed eighty-one studies dealing with "the ability to judge people" and concluded that that ability seems to lie in three areas: possessing appropriate judgmental norms, judging ability, and motivation. He elaborated as follows:

> Where J [the judge] is similar in background to S [the subject] he has the advantage of being readily able to use appropriate norms for making his judgment. The relevant judging ability seems to be a combination of general intelligence and social intelligence, with the possibility of an additional specific factor for nonanalytic judgments ("intuition")--so far, only one study has distinguished such a factor. But probably the most important area of all is that of motivation: if the judge is motivated to make accurate judgments about his subject and if he feels himself free to be objective, then he has a good chance of achieving his aim, provided of course that he has the requisite ability and can use the

> appropriate judgmental norms. The act of judging one's fellows is a purposive piece of behavior that involves not only conscious motivation but also ingrained attitudes toward social relationships, including the relationships inherent in the act of judging itself [p. 20].

Situational theory. Situational theory emerged from conclusions drawn about trait theory. Gibb (1969, p. 208) and numerous others have postulated that leadership is relative always to the situation. Other accepted maxims are that leadership flourishes only in a problem situation, and that the nature of the leadership role is determined largely by the goals of the group. These situational considerations have emerged as key concepts in situational theory.

Situation theory maintains that in order to become a leader, one must have the characteristics necessary to meet the situation or the needs of the particular group he intends to lead. It would follow that a given person who becomes the leader in one situation might not do so in another. When circumstances, problems, and group membership change, leadership also is likely to change.

Another theory is the "Group-process" or "Role-concept" theory generally credited to Benne and Sheats (1948). They claimed that "effectiveness of the leader is a matter of leader-member relationships [pp. 42-47]."

Mockler (1971) summarized some of the research done on situational theory by Fiedler, Whyte, Hill, and the duo of Lawrence and Lorsch. Fiedler (1967) categorized different kinds of work-group situations and leadership styles that he perceived most effective in each type of situation. His findings suggested that certain types of workers respond

best to democratic leadership, while others respond best to firmer, more autocratic leadership. Whyte (1969), corroborated Fiedler's findings, nevertheless, admitting that "very little is known about how to train people to be better leaders [p. 148]." Hill (1969) extended and, to some extent, validated Fiedler's theory of leadership effectiveness, but Graen (1971) considered Fiedler's contingency model to be questionable.

In experimental research, Graen (1971, pp. 196-201) conducted a study, and reported a parallel study, replicating Fiedler's Contingency Model of Leadership Effectiveness. These studies yielded results that were inconsistent with those predicted by the contingency model. Graen reported that other related studies also cast doubt on the plausibility of that model. Fiedler's follow-up rebuttal in the same journal (pp. 202-204) charged that Graen's research methodology was inadequate and therefore, his findings were invalid.

Lawrence and Lorsch's (1969) studies on situational theory categorized different types of organizational needs, different stages of a company's growth, and different kinds of environments. They further identified organizational structures that were theorized to be appropriate to each different situation. They labeled their work as a "contingency theory of organization [pp. 185-210]."

Research conducted by Rosenbaum and Rosenbaum (1971, pp. 343-348) pointed out the importance of considering the amount of stress in a situation. They found that "60 male subjects" in a stress situation perform best with authoritarian leadership, whereas those not under stress performed best with democratic leadership.

The related literature seems to affirm the conclusion that leadership is an interaction between leaders and followers and that such interaction will vary according to the situation.

Social System Theory

Parsons and Shils (1962), together with seven other distinguished social scientists, proposed a general theory of action for the social sciences. They investigated behavioral components in relation to social action. Some of those components were personality, values, motives, needs, and psychological incentive variables. Their incisive ground work for a theory of social action undoubtedly played a key role in Getzels and Guba's (1957) theoretical social system model, a model that has become a classic (see Figure 3).

The social system contains two inter-relating dimensions. People with governing interests and responsibility in each of these dimensions often compete, contend and challenge one another for dominance. Those dimensions are Nomothetic, or the institutional role and expectation, and Idiographic, or the interests of the individual in terms of his personality and need-dispositions. Where these two dimensions are found to be in conflict for dominant interests, the ideal is perceived as a compromise between meeting institutional expectations and satisfying needs of employees. Interactions between Nomothetic and Idiographic dimensions are often studied through behavioral observations of people representing those respective dimensions.

Owens (1970) discussed a "two value system" to organize work so that all parties achieve a sense of fulfillment as well as satisfying

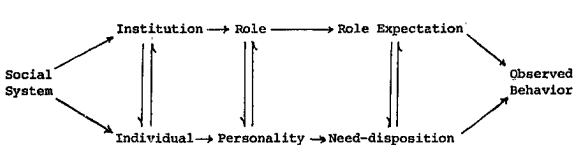

Figure 3*

Getzels and Guba Social System Model

*Source: Getzels, J. W., and Guba, E. G., Social Behavior and the Administrative Process, The School Review, Winter, 1957, p. 429.

productivity in line with individual capability for the common good.

He summarized as follows:

> Sound organizational behavior . . . seeks to balance human and technical values at work. . . . This approach seeks to achieve [organizational] productivity by building and maintaining employee dignity, growth, and satisfaction, rather than at the expense of these values.
>
> 'No lasting values are achieved if human relations succeed and the organization fails.' [Owens quoted Fox, 1966, pp. 19-24; Brown, 1966, pp. 60-91.] Sound organizational behavior should help achieve organizational purposes. It does not replace them. The person who ignores the production needs of his fellowman while championing employee needs is misapplying the ideas of sound organizational behavior. It is also true that the person who pushes production without regard for employee needs is misapplying organizational behavior. Sound organizational behavior recognizes a pluralistic social system in which many types of needs are in equilibrium [pp. 481-482].

If theory can be constructed and implemented to encompass the ideal expressed by Owens (1970), then there is hope for improvements in leadership and for achieving greater productivity in an educational work environment.

Principles and Guidelines

The literature reviewed by this investigator relative to leadership theory was not all consistent, nor was leadership theory perceived uniformly by various authorities on the subject. Gleaned from that literature, however, were some concepts with enough logic and breadth of application that they were quickly given credence as guiding principles for the implementation of leadership theory. For instance, it became rather obvious that the aspirant leader who wants to put his leadership theory into action is required to: (1) make plans to exercise leadership, and (2) provide the necessary time. Drucker (1967) issued the maxim to "know thy time" as a guideline to be an "effective executive." He stressed the importance of devoting less time to routine matters and more time to leadership efforts. He further stressed the importance of ordering tasks according to priority and concentrating on those responsibilities perceived to be most important.

Mager (1962), and other advocates of the behavioral objective approach, recognized the importance of assessment. The present investigator maintains that assessment, or performance evaluation, is a vital ingredient for sustained leadership. People in educational administration are usually given positional appointments first, with subsequent expectations of leadership. Evaluations of the positional

incumbent may be performed by the incumbent, by peers, by local citizenry and/or by others, with or without the incumbent's knowledge.

Planned initiative, time allocation and performance evaluation are guiding principles within which leadership theory must operate, and may be vital components of educational leadership theory.

Litchfield (1956) offered five major propositions, and many sub-propositions, which he perceived might lead to a theory of administration. The five major propositions were:

> 1. The administrative process is a cycle of action which includes the following specific activities: (A) Decision-making, (B) Programming, (C) Communicating, (D) Controlling, (E) Re-appraising.
>
> 2. The administrative process functions in the areas of: (A) Policy, (B) Resources, (C) Execution.
>
> 3. The administrative process is carried on in the context of a larger action system, the dimensions of which are: (A) The administrative process, (B) The individual performing the administrative process, (C) The total enterprise within which the individual performs the process, (D) The ecology within which the individual and the enterprise function.
>
> 4. Administration is the performance of the administrative process by an individual or a group in the context of an enterprise functioning in its environment.
>
> 5. Administration and the administrative process occur in substantially the same generalized form in industrial, commercial, civil, educational, military, and hospital organizations [p. 3-29].

It is apparent that "theory builders are struggling with problems of concept development, theory form, lack of testable hypotheses, and lack of precision [Griffiths, 1959, p. 70]." These problems constitute

gaps that must yet be bridged in the formulation of leadership theory. Related somewhat to the problem of precision is the problem of people being able to perceive behavior uniformly. Leaders and followers are often in disagreement about what constitutes leadership and what are acceptable measures of leadership effectiveness. There are also a multitude of differing perspectives from which leadership can be viewed.

The challenge is offered to the interested investigator to continue to fill in the theoretical research gaps. The quest continues for viable leadership theories that are increasingly reliable and appropriate to the many leadership situations that do now and will continue to exist. While it was not the primary objective of this study to develop a theory of leadership per se, it is hoped that the knowledge obtained might provide linkages of leadership style to behavior types that will play a significant role in theory development and likewise improve leader effectiveness in a work situation.

Leaders: Characteristics, Traits, Skills, Styles

Early investigations of leadership focused on (1) physical characteristics, (2) personality characteristics and traits, (3) types of leaders based upon behavior variables, and (4) styles of leadership. Each of these four areas has had its wave and subsequent ebb of popularity. None has been totally effective or totally discarded. Each approach eventually was relegated to consideration along with other inter-relating leadership variables. The purposes of this section of this chapter are to review the literature in the areas listed and to attempt to give them due consideration in this study. As

leadership theory emerges from research each component conceivably will have its place and function with other pertinent variables and components, eventually resulting in valid and reliable leadership theory.

Davis (1967, pp. 97-98) recalled that graphology (handwriting analysis) was once a popular subject, and that a certain group of people attempted to establish a significant relationship between handwriting style and leader identification. Equally popular with another group was phrenology, or the study of skull shapes; attempts were also made in this area to establish relationships between skull shapes and leadership potential. The astrologers have had their methods of studying leaders and leadership signs, as have other groups with special interests. Most social scientists and educational leaders, however, have not taken these types of studies too seriously.

Some academicians in the social and physical sciences have studied physical characteristics, family backgrounds, personality, educational factors and other vital statistics relating to leaders (Murphy, 1947; Taylor, 1960; Schutz, 1961, 1966). The research in these named areas produced a few insights and perhaps some base line observations relative to certain determinants of effective leadership by leaders in some situations.

Traits Approach

"Prior to 1945, a large percentage of the studies of leadership were devoted to the identification of traits or qualities of leaders" (Morphet, Johns and Reller, 1967, p. 124). There existed a basic assumption that people could be divided into two groups--leaders and

followers, and that leaders must possess certain traits or qualities not possessed by followers.

Stogdill (1948) and Gibb (1954) are well-recognized and often-quoted authorities on studies of traits. In 1948, Stogdill examined 124 studies on "the relationship of personality factors to leadership." Stogdill concluded that "uniformly positive evidence" from fifteen of the reviewed studies indicate that "persons who occupy positions of leadership exceed the average members of his group in the following respects: (1) intelligence, (2) scholarship, (3) dependability in exercising responsibilities, (4) activity and social participation, and (5) socioeconomic status." Further conclusions from ten or more of those studies surveyed confirmed that persons who occupy positions of leadership "exceed the average member of his group to some degree in the following respects: (1) sociability, (2) initiative, (3) persistence, (4) knowing how to get things done, (5) self-confidence, (6) alertness to and insight into situations, (7) cooperativeness, (8) popularity, (9) adaptability, and (10) verbal facility [Stogdill, 1948, p. 63]." An excellent summary of Stogdill's findings and conclusions was reported by Morphet, et al. (1967, p. 124).

Stogdill (1948) summarized his examination of the evidence as follows:

> The qualities, characteristics, and skills required in a leader are determined to a large extent by the demands of the situation in which he is to function as a leader [p. 63].
>
> A person does not become a leader by virtue of the possession of some combination of traits, but the pattern of personal characteristics of

> the leader must bear some relevant relationship to the characteristics, activities, and goals of the followers [p. 64].

During the 1940s trait research waned because clear-cut results failed to emerge. The lists of traits examined during that time became voluminous; however, the results of those trait studies were not sufficiently consistent for validity and reliability criteria. Among the reasons given for lack of consensus were that psychological leadership studies tended to focus on personal traits associated with leadership, whereas sociological studies focused on aspects of the situation in which leadership was attempted (Owen, 1970, p. 120). This created "trait--situation" conflicts, and served as one of several types of examples that inhibited consensus among researchers in the various disciplines. It became increasingly evident that trait research was not the panacea for which many had hoped in their attempts to explain leadership phenomena.

Gibb (1954, p. 914) suggested that the incorporation and integration of four major variables were important for a comprehensive theory of leadership. Those variables were: (1) the personality of the leader, (2) the followers with their attitudes, needs, and problems, (3) the group itself both as regards (a) structure of interpersonal relations and (b) syntality characteristics, (4) the situations as determined by physical setting, nature of task, etc.

Gibb (1954) summarized the status of trait research as follows:

> The variety of traits which a leader may have is the same as that of any other group member, except that the leader is usually found to have a higher rating on each "good" trait.

> While correlations between "good" personality traits and leadership are generally positive, they are rarely large. As a result, only a little of the variance in leader behavior can be accounted for in this way [p. 915].

Morphet (1967, p. 83) cited the findings of an unpublished doctoral dissertation by Myers (1954) which analyzed more than two hundred studies of leadership conducted over the previous fifty years. Myers' conclusions concerning the relationship of personality traits to leadership were:

> 1. No physical characteristics are significantly related to leadership.
>
> 2. Although leaders tend to be slightly higher in intelligence than the group in which they are members, there is no significant relationship between superior intelligence and leadership.
>
> 3. Knowledge applicable to the problems faced by a group contributes significantly to leadership status.
>
> 4. The following characteristics correlate significantly with leadership: insight, initiative, cooperation, originality, ambition, persistence, emotional stability, judgment, popularity, and communication skills.
>
> 5. . . . the personal characteristics of the leaders differ according to the situation. Leaders tend to remain leaders only in situations where the activity is similar. No single characteristic is the possession of all leaders [pp. 105-107].

Current thought still suggests that traits, both physical and behavioral; are unidimensional parts of the many related variables of leadership.

Tasks, Processes, and Skills

There has been an attempt by some scholars to analyze administrative behavior according to tasks, processes, and skills. (Katz, 1955; Campbell and Gregg, 1957; Griffiths, 1959, p. 8-12). They suggest that leadership effectiveness is an appropriate blend and balance of factors constituting those three components.

Harris (1963, p. 14) outlined five processes and listed tasks commonly associated with each; the processes were: planning, organizing, leading, controlling, and assessing. Any or all of these processes may be involved in leadership effectiveness, depending on the situation. For the sake of brevity, and yet with some specificity, only those tasks listed for the "leading" process are presented for consideration in this study.

Decision-making	Advising	Innovating
Selecting People	Communicating	Motivating
Stimulating	Encouraging	Facilitating
Initiating	Suggesting	Illustrating
	Demonstrating	

Harris (1963) also reported a schematic "3 dimensional" model of interrelationships among tasks, skills and processes [p. 17]. While that model provided an interesting perceptual network of relationships for organization and identification purposes, there was no consideration given as to which combinations were to be pulled together for what situations for effective leadership.

He did, however, attempt to explain the relationship between processes, skills and tasks in a logical and sequential order:

> People possess skills. Purpose and direction are provided by the designation of the task to which

> the skills are applied. The skills are selected, arrayed, and systematically employed to form a constellation of behaviors which we refer to as processes. The processes employed, the skills applied, and the task-designated purposes are closely interrelated elements characterizing the behavior of supervisory personnel [p. 17].

Katz (1955) proposed three classes of skills--human, conceptual and technical. He further offered the reader a better understanding of what he meant by suggesting behaviorally-descriptive words for each skill category. Those words listed under each of the three skills were:

HUMAN	CONCEPTUAL	TECHNICAL
Empathizing	Visualizing	Speaking
Interviewing	Analyzing	Writing
Observing	Diagnosing	Reading
Leading discussions	Synthesizing	Listening
Participating in discussions	Criticizing	Outlining
	Questioning	Demonstrating
Role-playing		Chairing a meeting
Reflecting feelings and ideas		Graphing
		Sketching

Bellows, Gilson, and Odiorne (1962, p. 7-8) provided a more elaborate list of qualifications for those in executive positions. Drucker (1967, p. 23-24) offered five essential "habits of the mind" that one must acquire in order to be an effective executive. Livingston (1971) stated that three skills are essential for leadership: opportunity finding, problem finding, and problem solving.

In a more recent digest of competencies perceived necessary for leaders, Bennis and Slater (1968) described four dimensions which seemed applicable to leadership. They, too, described what was needed in a general way, without specific reference to what the blends of leadership components should be for specific situations. Those four dimensions were:

1. knowledge of large, complex human systems,

2. practical theories of guiding these systems, theories that encompass methods for the seeding, nurturing, and integrating [sic., i.e., of] individuals and groups,

3. interpersonal competence, particularly the sensitivity to understand the effects of one's particular leadership style and value system, and

4. a set of values and competencies that enable one to know when to confront and attack, if necessary, and when to support and provide the psychological safety so necessary for growth [p. 122].

Few educational leaders would discount the existence of tasks, and the necessity for processes and skills to accomplish those tasks. It has been left to the discretion of those in the various disciplines to determine what processes and what skills need to be employed to accomplish their group or organizational tasks effectively and efficiently.

Leadership Styles

Research on leadership style was, with few exceptions, an outgrowth of research on leader traits. Numerous style types have been classified according to a variety of different criteria and characterized by multi-dimensions of personality. They have also been analyzed and studied for statistical significance and evaluated with hope for new relationships, orders or insights into human behavior. The importance of style is recognized as only one dimension of the leadership process. Qualitative and definitive dimensions of style appear to depend on the role of the leader, the nature of the situation and the expectations held for him by the led.

Among the early writers who wrote about style types was Weber (1961), who was originally trained in law, later in economics and

finally in sociology. Weber's "traditional," "bureaucratic," and "charismatic" styles were defined as different dimensions of authority. Tannenbaum (1968, p. 104) reported the parameters of Weber's definitions as three dimensions of "legitimate authority" in a social system. For example, "traditional authority" was perceived as the leader's right to rule by virtue of birth or social class, i.e., monarchs, feudal lords, patriarchs. "Bureaucratic Authority" leaders were those who possessed logic, reason and the technical competencies of the positions they held. The bureaucratic leader held "legal" authority, acted impersonally and expected followers to obey the law impersonally out of a sense of duty to the law and the authority of the one dictating the law. "Charismatic Authority" was associated with those who possessed extraordinary powers or endowments, irrespective of position, and who were to be obeyed out of respect and awe of those powers. Prototypes for this classification were the prophets, war heros and other revered and respected people with demonstrated personal powers.

The research work of social psychologists Lewin, Lippitt and White (1939, pp. 271-299; 1947) has been widely recognized and frequently reported. The designation of three leadership styles, "autocratic," "democratic," and "laissez faire," is attributed to the work of these three men. These styles emerged from a study of adult leaders working with ten year old boys who held membership in a hobby club. Researchers observed the behavioral reactions of that group of boys as adult leaders deliberately engaged in different leadership styles. Under those experimental conditions the most favorable responses came from boys when

the democratic style was used; the autocratic style brought resistance and aggression and the laissez-faire style resulted in frustration, lack of purpose and indecision.

Generalizations made about the study by Lewin et al. (1947), and other studies closely related to it (Ziller, 1957; Bevan, Albert, Loiseaux, Mayfield and Wright, 1958), gained wide acceptance for democratic leadership. However, later studies that were conducted in other settings suggested certain cautions to those using that style. Among them were cautions that a dynamic leader may exercise too much restraint for the sake of being democratic, cautions for making overgeneralizations about situations in which democratic leadership would be appropriate, and cautions that a leader's style could be artificial if he was not adaptive to a democratic style. Lipham (1964) suggested that in actual practice democratic leadership "can be confused with a sort of shell-game that the administrator plays . . . ." A theme frequently restated in Bartky's (1956, p. 4-7) book was that dominance and coercion can be legitimate leadership techniques in some situations. Hare (1966, p. 316) and Owens (1970, p. 126) stressed the wide differences in maturation, education, complicity and purpose between a boy's hobby club for 10 year old boys and that of administrative leadership of professionally trained educational groups of people.

Three descriptions of styles of leadership began to appear in social and psychological literature during the 1940s and 50s. They were "nomothetic," "ideographic," and "transactional." Much of the developmental work of those three concepts has been attributed to the work of Parsons and Shils (1962). Getzels and Guba (1957) amplified

and helped to popularize those concepts in their expository Social System Model. From that historical emergence came the transference of those concepts into the form of leadership style. The idiographic dimension became associated with one's personality and need-dispositions and other considerations related thereto. Nomothetic leadership was associated with institutional roles, goals and expectations, and leader behaviors related thereunto. "Transactional" leadership emerged as a perceived need to inter-relate the idiographic and nomothetic styles into appropriate blends to make a social system succeed. The transactional style became one to be emulated as the "most desirable" type of leadership with which to identify.

Blake and Mouton (1964) proposed two basic styles that were very similar in nature to the nomothetic and idiographic concepts. They were called "production centered" and "people centered" styles.

Boles (1971, p. 218a) conceptualized nine differing styles and suggested seven impinging criteria for those styles relative to respective operational functions for each. Those styles were "autocratic, bureaucratic, democratic, idiocratic, oligarchic, paternalistic, rationalistic, and theocratic." Reddin (1967) investigated typologies based on "Task and Relationships Orientations." He reported six managerial typology classifications that were described according to six different "bases of classifications," each of which was proposed by a different investigator (see Figure 4).

Reddin (1967) observed that four of those classifications (note asterisks preceding author names in Figure 4) had two common "fundamental personality variables . . . called Task Orientation and Relationship

Orientation." He further recognized the sources from whence those empirical findings came: Ohio State Leadership Studies, University of Michigan Leadership Studies, the work of Bales at Harvard, and also the studies of Zelditch on role differentiation. The above studies were used by Reddin as supportive research for his "3-D" theoretical styles of management. His theory suggested twelve styles of leadership along two basic dimensions, "Task orientations and Relationship orientations." The third dimension was a perception of effectiveness on a scale continuum from "less effective" to "more effective."

Others who reported type styles were Owens (1970), Stein (1971), Fiedler (1967) and Graves (1966).

It was apparent in the review of the literature that many investigators recognized style differences of the leader, and gave only token recognition to differences of the led. Much of the research was conducted in such a fashion as to assume a behavioral constancy of the led. Research designs focused on leader styles apparently were not set up to categorize, adequately recognize, or deal with those differences; that is, research relating behavioral differences of the led to style differences of the leader in compatible relationships. There has been wide acceptance of the postulate "Leadership depends on the leader, the led and the situation." Graves (1966) was among the first to suggest specific leadership styles for specific behavior types of people in an attempt to improve leadership effectiveness, or "to reduce" what he called "deterioration of work standards [p. 117]." The "managerial styles" proposed by him were utilized in the present

Author	Basis of Classification	Types
*Lewin-Lippit	Initiation Guidance	Democratic, Laissez faire, Autocratic
*McGregor	Assumptions About the Nature of Man	Theory "X" Theory "Y"
Jennings	Power Impulse, Hierarchial Orientation Order Impulse, Et Al.	Abdicrat, Bureaucrat, Autocrat, Democrat, Neurocrat, Executive
*Blake-Mouton	Concern for Production Concern for People	1.1; 1.9; 9.1; 5.5; 9.9
Ruskin	Factor Analysis	Leadership Skills, Hostile Self-Seeking Dependent - Exploited, Interpersonal Orderly
*Carron	Consideration Scores	Laissez Faire, Democratic, Autocratic, Paternalistic

*Sources with two common personality variables, task orientation and relationship orientation.

Figure 4#

Psychological Managerial Typologies

#Source: Reddin, William J. "The 3D Management Style Grid," Training and Development Journal. 1967, p. 9.

investigation, and a description of those styles, together with other dimensions of his research, are reviewed later in this chapter.

Behavior Types

An investigation of the literature dealing with behavior types was made in an attempt to (1) find psychological support for behavioral groupings, (2) acquire background information relative to various behavior types, and (3) search for guidelines and cues that would provide direction for this study.

Williams (1956) pointed out the complexity of human behavior by enumerating anatomical, physiological, biological, chemical, and social differences in the complex, interactory maze of personality. However, students of human behavior have amassed information relative to various homogeneous groupings. Differences have been recognized in talents and aptitudes, in interests and motives, in habits and response styles, and in emotional needs and vulnerabilities (Tyler 1969). Tyler suggested that both psychologists and educators, in their respective studies and interests in developing human behavior, "need some way of organizing the enormous complexity of individual differences in order to develop general principles about human nature or strategies to carry out educational purposes [p. 639]." Stein (1971) affirmed what Tyler suggested, that "types are implicit in theorizing; might it not be worthwhile to make them implicit, and in doing so, might we not be better able to integrate our knowledge [p. 7]?"

In order for human behavior to be studied and developed in desirable directions, there is need for some method of organizing the

complexities of individual differences. General principles should evolve from those organized efforts as guides for educational endeavors. Allport (1937, p. 22 and 237-248) was an articulate spokesman for the use of "ideographic" techniques that consider characteristics peculiar to each individual studied. He seriously questioned nomothetic methods that rate all members of a group on the same rating scale. Yet, rating systems have been widely used, and seemingly must be used, in behavioral research if patterns of personality are to be identified. The challenge, it would seem, is to discover controlling psychological factors of behavior. Analysis of external behavior is a frequently used technique for hypotheses and suppositions regarding internal motives, values and a host of individual differences.

"Intelligence" and other "mental abilities" were among the first personality characteristics to be studied (Tyler, 1969, p. 640) by psychologists and educators. Thurstone's work, (1938) in classifying "seven identifiable kinds of mental ability," was one of those personality studies. Guilford (1959) extended Thurstone's analyses beyond seven classifications to a "theoretical model for the complete structure of intellect [p. 156]." Guilford and his associates developed tests to measure one's ability to see problems, fluency of thinking, flexibility of thinking, originality, and other cognitive processes.

Needs

Murray (1938) and his associates offered a definition of needs and an explanation of how needs influence and shape behavior. His descriptive definition states:

> A need is a construct which stands for a force . . . in the brain region which organizes perception, apperception, intellection, conation and action in such a way as to transform in a certain direction an existing, unsatisfying situation. A need is sometimes provoked directly by internal processes of a certain kind . . . but, more frequently by the occurrence of one of a few commonly effective environmental forces . . . . Thus, it manifests itself by leading the organism to search for or to avoid encountering certain kinds of forces . . . . Each need is characteristically accompanied by a particular feeling or emotion and tends to use certain modes . . . to further its trend. It may be weak or intense, momentary or enduring. But usually it persists and gives rise to a certain course of overt behavior, which . . . changes the initiating circumstances in such a way as to bring about an end situation which stills [appeases or satisfies] the organism [pp. 123-124].

Murray (1938) also stated that the existence of a need can be inferred on the basis of:

> 1. the effect or end result of the behavior,
>
> 2. the particular pattern or mode of behavior involved,
>
> 3. the selective attention and response to a particular class of stimulus objects,
>
> 4. the expression of a particular emotion or affect, and
>
> 5. the expression of satisfaction when a particular effect is achieved or disappointment when the effect is not achieved [p. 124].

Based upon those inferences, he suggested two basic need classifications, "primary" and "secondary." He described a primary need as "an organic event," typically referring to physical satisfactions such as "air, water, food, sex, lactation, urination, and defecation." Secondary needs were described as those characterized by a lack of

focal connection with any specific organic process or physical satisfaction, such as "acquisition, construction, achievement, recognition, exhibition, dominance, autonomy, and deference [pp. 152-226]."

Under the two basic need classifications, Murray (1938) enumerated twenty specific need components. They were: "abasement, achievement, affiliation, aggression, autonomy, blamavoidance [sic], counteraction, defendance, deference, dominance, exhibition, harmavoidance, infavoidance, nuturance, order, play, rejection, sentience, sex and succorance [p. 152ff]."

Maslow (1954), like Fromm, Rogers, and Combs, was a humanistic psychologist who believed in the goodness of man's inner nature. He believed that man perpetually seeks to become a "self-actualized" person. Self-actualization, however, is a process which can be only partially achieved, because new goals emerge as existing goals are accomplished. Maslow's work has gained wide publicity and authoritative acknowledgment in educational, sociological and psychological literature. His exploration into behavior led to an interesting "holistic-dynamic theory" suggesting a "hierarchy of human needs" (Maslow, 1943, pp. 372-394; 1954, pp. 80-94). That hierarchical pyramidal structure of human needs is diagramed in Figure 5. The pyramidal concept started with foundational and fundamental recognition of the "physiological" needs of man. It was believed that as those needs were met by an individual, the next perceived needs requiring fulfillment were "safety" needs. As physical and safety needs achieved an equilibrium or balance in the individual, the needs for "belongingness and love" became important, and those were followed by "esteem" needs and finally by the need for

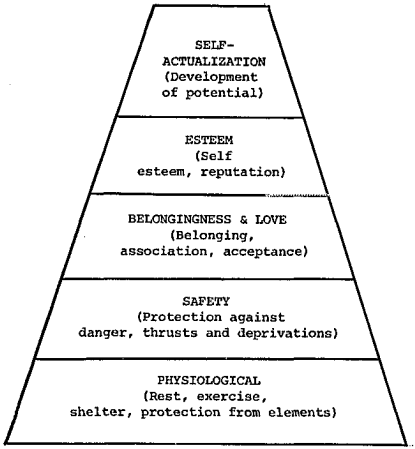

Figure 5*

Maslow's Hierarchy of Needs

*Source: Maslow, A. H. Motivation and Personality, New York: Harper and Row, 1954, pp. 80-94.

"self-actualization." The latter need category was initially the most elusive to define behaviorally. Maslow, however, did elaborate on certain dimensions of self-actualization in his book Religions, Values, and Peak Experiences (1964). He discussed a list of "attributes of reality" from a "peak-experience" viewpoint, and called it a list of "irreducible, intrinsic values of reality [p. 91]." His list of 14 values, referred to as "Being-Values" or "B-Values," were: "1. Truth: honesty, reality, 2. Goodness, 3. Beauty, 4. Wholeness, 4a. Dichotomy-transcendence, 5. Aliveness, 6. Uniqueness, 7. Perfection, 7a. Necessity, 8. Completion, 9. Justice, 9a. Order, 10. Simplicity, 11. Richness, 12. Effortlessness, 13. Playfulness, 14. Self-sufficiency [pp. 91-94]."

Shostrom (1964) conducted an "Inventory for the Measurement of Self-actualization," and used a discriminating test in his study to differentiate self-actualized people from "normal or non-self-actualized" persons. He described personality and behavioral characteristics of the self-actualized person. Those descriptions can be paraphrased as follows:

> 1. Exhibits freedom from social pressures to which normal or non-actualized people conform.
>
> 2. Lives in the here and now, able to tie the past and future to the present in meaningful continuity. Less burdened from guilts, regrets and resentments from the past than others. Has faith in the future without overly rigid or idealistic goals.
>
> 3. Less dependency or deficiency oriented than inner or other directed persons. Characterized as one who has autonomous, self-supportive, or being orientation. Sensitive to people's approval, affection, and good will, yet less dependent on others than other directed people.

He is free and not a rebel. Discovered a mode of living which gives him confidence in himself.

4. Is synergetic [pp. 207-218].

Descriptors

Stein (1971) suggested six types of behavior and outlined the behavioral "dynamics" associated with each type. The six were: Conformity Oriented, Intellectually Oriented, Action Oriented, Unconventional, Resourceful, and Forceful. The conformity oriented type person is somewhat comparable to the "people centered" and "tradition directed" types used in this study. A conforming person is dedicated to other people; enjoys being and working with others, is helpful, supporting and comforting to others. He is deferent to authority, accepts past traditions, desires to conform to others' wishes, and so forth. The Intellectually Oriented person strives to obtain goals and is confident in his ability to know what is right. The Action Oriented individual "aims to get things accomplished," to be in control, and to have influence with others. The Unconventional person is not too discriminating in interpersonal relationships. He enjoys playing, indulges in impulses, is not well organized, and regards self as a "Free soul." The Resourceful Individual is oriented to achievement, is "anxious" under pressure, yet finds new means of coping with problems, and is flexible. One who is categorized as the forceful behavior type is ambitious, aspiring and competitive. He resists coercion and domination by others, is confident and authoritative, and is status oriented.

Stein (1971) also offered an appropriate caution for a major problem of typology classifications:

> The difficulty is that audiences and listeners respond to what they think the dynamics of the types are like on the basis of the names given to the types rather than remembering to look at the dynamics of the types themselves [p. 12].

Stein, therefore, used number and letter identifications for type classes rather than names. He further developed a 20 paragraph "Self Description Questionnaire" (SDQ) describing the manifestations of different needs based upon the psychological framework of Murray's (1938) Personality System.

Considering the many basic "needs of man" reported by various authorities in the literature, there seemed to be quite a number of them that are comparable in meaning. Some discriminating distinctions were made according to various abstraction levels of the concepts involved and according to criterial components of the behaviors being studied.

The above described needs and behavior descriptors are representative of the many that exist in the literature. It was this investigator's opinion that no further purpose would be served in this study to be more elaborative of behavior types per se, except for those considered in connection with the work of Graves.

Graves' Management Model

The initial impetus for this study came as a result of this investigator's interest in an article by a psychologist who proposed a theoretical model for managerial effectiveness. Clare W. Graves

(1966, pp. 117-128), at the time of reporting, claimed fourteen years of practical research and application for his theory in work environments of business and industry. His central thesis was that in a "work situation," the important thing "is to see that the style of management suits the behavior of the group of workers being managed [p. 117]." A minor semantic transposition bridges that theoretical construct to a leadership framework in an educational setting. For example, if the style of the educational leader is compatibly matched with the behavior type of the led, then the effectiveness of the led and the leader will be increased. An important distinguishing difference between Graves' assertive management theory and the bulk of other research on leadership effectiveness was the actual linkage of psychologically-appropriate leadership styles to specific and identifiable types of behavior.

Inasmuch as this study was an attempt to apply Graves' (1966) theory to an educational leadership setting, it was deemed desirable to review in more depth the research relating to his theory. Of particular importance was the developmental work cited in the area of psychological needs, motivational systems, and value systems of "the led" in a work situation.

Psychological Basis

Graves (1966) suggested that the psychological make up of the human organism is an unfolding, developmental process; a process that emerges through a series of maturational stages of human growth. That process was called "progressive subordination of older behavioral systems to new, higher order behavior systems [p. 120]." He further clarified that concept by stating:

> The mature human being tends, normally, to change his psychology as the conditions of his existence change. Each successive stage or level is a state of equilibrium through which people pass on the way to other states of equilibrium, he has a psychology which is particular to that state. His acts, feelings, motivations, ethics and values, thoughts, and preferences for management all are appropriate to that state. If he were in another state, he would act, feel, think, judge, and be motivated in a different manner [p. 120].

The worker may mature from a lower level to a higher order behavior system, regress, or stabilize and live out a lifetime at any one level in the hierarchy. Graves' (1966) level descriptions suggest a set of formulated behaviors and specific guidelines for the leader to recognize. Once recognized, he would use an appropriate leadership style with the worker in order to obtain effective work standards. If certain conditions arise and a worker moves in the direction of another level, he will then live by another set of psychological principles, and will react negatively to the way he was previously managed. These transitions, maturations and changes are, according to Graves, behaviorally identifiable. Leaders should adjust their leadership styles to satisfy the needs of people at their respective behavior levels in order to help them to achieve high productivity consistently. The application of appropriate leadership styles to the needs of people in a work situation was specific and clearly stated:

> When he [the worker] is at any one level, he has only the behavioral degrees of freedom afforded him at that level. Therefore, he can respond positively only to managerial principles appropriate to that level, and he must respond negatively to principles of management which are not appropriate to the level.

> When deteriorating work standards are present, we should look primarily for incongruency between the psychological level of the producer and the managerial style of the manager . . . as we attempt to correct the situation, we should strive to restore congruency between worker level and supervisory style [p. 120].

It was Graves' (1966) opinion that it would be to the leader's advantage to have several sets of "managerial principles," or in the context of this study, to have the ability to use a variety of leadership styles. Inferred in those "style" options is the ability of the leader to recognize behavior types and know which leadership styles are compatible with them. In other words, the leader should lead according to those principles that are compatible with the behavior type of his followers. Graves rationalized that this conceptual framework "does not make an employee an object to be manipulated. It makes him a person to be respected for being what he is [p. 128]." In return for this respect and as a result of an appropriate leadership style, he reciprocates with work standards that results in higher production.

Levels of Human Behavior

Included in Graves' (1966) theory, is a seven level hierarchial model of what he entitled "Levels of Human Behavior" (p. 121) (see Table 1). Graves chose to call the behavioral levels of the led the "Nature of Existence" (Column 2). Opposite each of the seven behavior levels is the corresponding worker "Motivational System" (Column 3), worker "Value System" (Column 4), and "Appropriate Managerial System" (Column 5). Managerial system is synonymous with what this study defines as leadership style.

Table 1

Levels of Human Behavior

(1) Nature of Existence	(2) Motivational System	(3) Value System	(4) Appropriate Managerial System
1. Autistic	Physiological	Amoral	Close Care and Nurturing
2. Animistic	Survival	Totem and Taboo	Simple Demonstration; Force
3. Awakening	Order	Constrictive	Moralistic and Prescriptive
4. Aggressive, Power-seeking	Mastery	Power	Personal, Prescriptive, and Hard Bargaining
5. Sociocentric	Belonging	Group-mindedness	Participative, Substitutive
6. Aggressive, Individualistic	Self-esteem	Personal	Goal Setting without prescribing means to goals
7. Pacifistic, Individualistic	Information	Cognitive	Acceptance and Support

Note: Adapted from an article by Clare W. Graves entitled "Deterioration of work standards," found in the September-October 1966 Harvard Business Review, page 121.

A brief statement about each level is presented in this discussion for the reader's ease in understanding and distinguishing among the levels.

Level 1. The nature of autism is the process of staying alive. It consists of little more than the psychological awareness of "sustenance, illness, reproduction and disputes [p. 121]."

As the table depicts, first level people have a dominant "physiological" motivation and an "amoral" value system. The appropriate "managerial system" to meet basic physical needs for people at this level is "close care and nurture." The small amount of productivity of which such people are capable would come in response to this type of appeal.

Level 2. Animism is perceived as a beginning state of awakening to new realities beyond autism. There is new awareness of a flood of numerous kinds of stimuli, but stimuli are not comprehended. Animism leaves the person full of "magical beliefs and superstitions." He lives by motivation and value systems prescribed by "totems and taboos." Effective leadership comes through appropriate appeal to those motives and values. Work effort is often spotty and sporadic and people at this level respond to "model" leadership that is easily imitated and which is in accordance with the totem and taboo values held. Graves pointed out that managers can "negatively motivate second-level people by force or threatened force; force will work so long as it does not conflict with second-level taboos." Force does not work with autistic people; they have insufficient energy to care about threat.

Level 3. "Awakening" people are reported to respond more to autocracy than to autonomy and participation. They experience such a flood of stimulation in the brain that they experience varying degrees of confusion, fright or insecurity. As a result they must construct an "orderly, predictable and unchanging world." Third level individuals build a pre-destined and/or a moralistically-prescribed world, based upon a value system of a pre-destined or pre-ordained order. He responds best to a managerial system of rigidly prescribed and rigidly enforced rules, on the order of Blake and Mouton's (1964) "9,1" (production oriented) style of management.

Level 4. Fourth level man, the "Agressive, Power-seeking" type, believes in the power of self. He contends that the established order of things can be wrought through the exercise of will power. The tenuous, insecure third level patterns have solidified into a moralistic confidence level of self-determination and a right to change things in a direction that one desires. This type person is motivated by a high confidence level and a certain mastery over what he knows. His value base dictates that achievement comes through challenge, to do as one pleases and to set one's own rules of conduct at work. The appropriate leadership style requires "giving to get," providing incentives, bargaining, out-maneuvering; being a good organizer and being willing to deal with conflict. Fourth level leaders, Graves explained, work well with third level workers providing the leader is well organized. When third-level leaders face fourth level people "production is only as good as the bait management can contrive."

Level 5. "Sociocentric" man, as he emerges into level five from level four, has either satisfied economic and security needs or now finds sociocentric needs more dominant than his former needs to challenge existing orders. "He becomes concerned with social rather than basic personal or material matters." Instead of "survival, safety, order, or material gain, he now seeks a "congenial atmosphere and a comfortable work place." His values are "group minded" and he is motivated by group interests, needs and attitudes. Effective management occurs through group planning and development of group goals. Care must be exercised in fifth-level management to prevent loss of production through too much or too many group meetings. Graves emphasized that "The group must work to substitute new ideas and new machines to compensate for loss of sheer human effort." Graves discouraged the use of "9,1" (production oriented) management with fifth level people; the expected result would be passive resistance and a steady decline in production. He also strongly discounted fifth level management for third or fourth level people, particularly when the factor of competition was not present. The psychological imbalance resulting from such a mis-match would result in steady deterioration of work standards.

Level 6. Sixth-level man is reported as no longer motivated by common fears. His disposition suggests that he is "quietly confident of his capacity to survive." He is highly responsible, willing to have management set reasonable standards for work quantity and quality. He is ends, not means, oriented. He believes the task is to get the job done and does not like being told when, how or where to do his work. The aggressive-individualist believes the task of management is to

provide the wherewithal to do the job and rebels against the idea that it is management's prerogative to plan and organize work methods through involvement of the managed. Effective management sets goals through mutual consultation. Graves recognized the threat that sixth-level people pose to management: "The very thought that work can best be accomplished by the manager working for the managed, rather than by the supervised working for the supervisor, is far too 'unconventional' for most bosses to ever accept [p. 126]."

Level 7. The seventh-level, or "pacifistic-individualistic" man, is perceived as a "softened version of sixth level man" who doesn't fight organizational means per se as do those on the sixth level. A person on the seventh level insists on trust, respect, and a desire to be integrated into the institution on his own merits. He resists coercion and restrictions, but is not as exhibitionistic in so doing as is sixth level man. He avoids any kind of relationship wherein others try to dominate him, and is desirous of being approached through "acceptance management." That is, management that is willing to accept him like he is: competent, responsible, and motivated to do his job. Management then consists of a leadership style of encouragement and support, of mutual planning and agreement upon goals and expectations. Graves (1966) summarized this level man by saying:

> Management must fit the organization to him, not him to the organization. If he cannot get the acceptance he desires, he will build a non-organizationally oriented world for himself, retire into it, do a passable but not excellent job, and wait for managerial change to occur [p. 127].

The above brief descriptions of behavioral types and compatible leadership styles merely hint at the cognitive psychological foundations a leader should have of human motivation and value systems. Graves (1966) suggested six principles of "management reality" as being necessary for effective management. They were as follows:

> 1. There is a probability that an employee will be at a certain behavior level for life.
>
> 2. An employee will continue to prefer management suited to his behavior level.
>
> 3. The manager will continue to prefer to manage by the style his behavior level generates.
>
> 4. Some organizational members will move progressively or regressively from one behavior level to another in the course of their lifetime. Therefore:
>
> > a. some employees will eventually want management of a style congruent with a higher behavior level;
> >
> > b. some employees, because of stress, will seek a form of management characteristic of a lower level;
> >
> > c. some managers will eventually change to styles generated by higher behavior levels;
> >
> > d. some managers will regress to styles consonant with lower levels.
>
> 5. Good work standards are a function of congruency between employee desire and managerial style.
>
> 6. Poor work standards reflect incongruency between employee desire and managerial style [p. 127].

Psychological Behavior Variables

This section of this chapter is a review of personality components to which have been attributed influence upon one's system of motives and values. Each of these components will be examined separately. Included in the discussion of values is an attempt to interrelate the concepts of opinions, attitudes and beliefs to values. This discussion will be followed by a review of Graves' (1966) orientation toward motivation and value systems. It may be noted that the literature review in this area was selectively slanted toward the way that one's work could be affected by the two variables, motives and values.

Motives

To motivate is to provide a stimulus to certain actions or behaviors. That descriptive generalization is acceptable to many authorities in the field of psychology. The word "incentive" is used frequently as a synonym for the word "motive." Collectively, motives and incentives have been perceived as a form of inducement to bring about certain behavioral acts. The motivated person is, therefore, a person with a purpose. Motivation is a process for governing choices made by persons among alternative forms of voluntary activity (Vroom, 1964, p. 6). That process involves a network of habits, acquired beliefs, a body of internalized knowledge, and a wide variety of environmental stimuli. All of these variables interrelate with motives. They combine in a variety of forms to help one formulate judgments that result in "motivated" behaviors.

It is relevant to a discussion of motives to recognize dominant and subordinate motive in the human personality and the process for so ordering. It is self-evident that some motives may be perceived as more important than others. It is also well known that two or more motives sometimes compete for dominance in the life of an individual; that judgments must sometimes be made when competing motives exist and a stand must be taken. Political and social scientists attempt to identify emerging and competing groups in a given community according to a given set of needs. The psychologists attempt to identify emerging and competing motives according to needs in the psychology of individuals or groups of individuals.

When conflicting motives in the human personality are forced into a situation where a choice must be made between two or more motives, the values one holds and the motivational drives that one may possess begin to work. These values and drives merge into intricate filtering and screening processes in the human psyche that allows the person to give priority or dominance to one idea or type of behavior over another.

The philosophical principle of hedonism, or the selection of alternative choices of pleasure and the avoidance of pain (James, 1918, p. 550), has had significant impact upon contemporary thoughts about motivation. Lewin (1938) and Tolman (1967) were among the early advocates of a motivation theory based on hedonism. Their "cognitive" theory of motivation viewed the behavior of man as an attempt to attain positive goals or objectives and to avoid negative objects or events. Their theory was perceived to be an effort by man to attain a positive influence and image through social status and position, and to avoid

those experiences or conditions which would lead to negative hedonistic relationships or experiences.

Hull's (1951, 1958) "principles of reinforcement" were influenced by hedonistic motivation. Those principles had influence from such sources as Thorndike's (1965, p. 244) "law of effect," which law was an attempt to translate motivational theory into practice.

Stacey and DeMartino (1965) suggested that human behavior follows a hedonistic course toward the resolution of conflicting pressures from a host of incoming stimuli that feed into man's psychological structure. They expressed that thought as follows:

> There are a few fundamental drives [motives] which lead to a restless series of behaviors designed to bring about a change from the unsatisfactory state of affairs in a given direction of adjustment. There are a thousand ways of satisfying hunger, and perhaps even more specific behaviorisms any one of which might be employed in satisfying an urge toward mastery and success. For understanding people, nothing seems more important than insight into the ways in which they are moved by these fundamental psychological pressures [p. 13].

Stacey and DeMartino (1965) further identified what they called "trends" or patterns of behavior which follow a hedonistic procedure toward the resolution of physical or psychological discomfort or conflict. They assert that human beings tend to behave in ways involving movement from:

> 1. physical deprivation toward physical well-being, euphemia [sic, i.e., euphoria];
>
> 2. from failure, thwarting disappointment, toward success, mastery and achievement;

> 3. from being ignored or looked down upon, toward being looked up to, recognized, approved, admired;
>
> 4. from being unwanted toward being loved and given intimacy, tenderness, and a sense of belonging;
>
> 5. from being worried, anxious, fearful, toward release, security, and peace of mind;
>
> 6. from being bored, finding life dull and monotonous, toward adventure, new experience and zestful activity [p. 18].

Discussion of one's motivation in a work situation reduces the size of the behavioral framework to be considered. Barnard (1938) discussed motives as they relate to nomothetic interests. He suggested that an organization achieves its goals by modifying the actions of the individual through control or influence upon internal or external factors. He further stated:

> We shall call desires, impulses, wants by the name "motives." They are chiefly resultants of forces in the physical, biological, and social environments present and past. In other words, "motives" are constructions for the psychological factors of individuals . . . inferred . . . by (1) what they do and say in the situation, (2) what they have said and done in the past in similar and dissimilar situations, (3) what they do and say after the situation [pp. 17-18].

Vitales (1953, pp. 3-15) had noted that the process of developing a "will to work" is the core problem of industry for manpower utilization. Maier (1955, pp. 84-117) suggested a need for greater attention to motivation and to problems of frustration by workers. McGregor (1960), Likert (1967), and Fiedler (1967) were among the many who have outlined theories of management for greater productivity, based largely on assumptions about human motivation. McClelland (1967, pp. 493-502) discussed

intensity of motivational drives versus levels of productivity ranging from minimum to maximum efficiency. A host of research studies cited by Vroom (1964) all found that "anxiety impairs performance." One explanation he offered was that there are "involuntary autonomic responses associated with anxiety which could interfere with the execution of the task [pp. 207-8]."

Vroom (1964) suggested six motivational bases for work: (1) monetary rewards for the job done, (2) expenditure of varying levels of mental and physical energy, (3) service rendered through production of goods and services, (4) moral justifications for work, i.e. "the right thing to do," (5) social interactions and relationships, and (6) the acquisition of social status [p. 32].

The present investigator recorded five fundamental and underlying principles or motivated behavior from an un-noted source:

> 1. a physiological and compatible work environment that does not violate basic individual needs and values;
>
> 2. behavioral expectations which "make sense" to the individual;
>
> 3. perceptions of work that are compatible with experiential influences and resulting needs of the individual;
>
> 4. a self image which is compatible with work goals and expectations as well as personal goals;
>
> 5. consistently regular behavioral satisfactions that result from need fulfillment, either on the job or as a result of relationships and activities in affiliation with employment.

Davis (1967, p. 32 ff.) reviewed the research regarding motivational maintenance factors in a job situation, confirming the five principles

noted above by the present writer. Herzberg's (1967) studies of work motivation are well known, one of which was his study of engineers and accountants in Pittsburgh. He concluded that changing job conditions dissatisfying to employees did not always bring about job satisfaction. The distinction was then made between motivational and maintenance factors. Herzberg's study included six "motivation" factors, namely: achievement, recognition, advancement, work itself, possibility of growth, and responsibility. Ten maintenance factors, which he called "hygienes," were: company policy and administration, technical supervision, interpersonal relations with supervisors, interpersonal relations with peers, interpersonal relations with subordinates, salary, job security, personal life, working conditions and status (pp. 70-83).

Six subsequent research studies cited by Davis (1967, p. 33) largely confirmed Herzberg's findings regarding his motivation-maintenance research. With full recognition of some situational and personality variations, Herzberg's conceptualizations have gained credibility and acceptance in the area of motivational research.

Maslow's (1954) "Hierarchy of Needs" model (Figure 5, p. 44) included five need priorities. That model has gained wide popularity in the research literature, and frequently has been associated with motivation. Figure 6 compares Maslow's need priorities with Herzberg's motivation-maintenance model (Davis, 1967, p. 37). The similarity of "need" comparatives is worthy of note. They both emphasize the same set of relationships. Maslow focused on human psychological needs and Herzberg on job conditions affecting basic needs. It was Davis's conclusion that "managerial and professional workers have reached a

stage of socioeconomic progress in modern society such that the two higher order need levels are now primarily the motivating ones [p. 36]." People exhibiting behavior that is consistent with descriptions of "higher" need levels presumably have satisfied lower order needs so that those are no longer focalized, driving forces. Davis summarized his comparison of the two models (Figure 6) as follows:

> The Herzberg . . . model adds something to the need-priority model by showing the distinction between maintenance and motivational factors and showing that motivational factors are mostly derived from the work itself. Of the six motivational factors [in Figure 6], the first four are clearly intrinsic motivators, and the remaining two are substantially intrinsic. The Herzberg model is, therefore, quite realistic in expressing current motivational conditions on the job and focusing on the potential progress available through intrinsic motivation [p. 37].

It is apparent from the writings and research of authorities in the field of motivation that a person's motivation to work is affected by both environmental and psychological stimuli. A common principle that seems to interlink with all motivation, except perhaps for behaviors spawned by impulse or reflex, is that motives for work emerge from one's system of values.

Opinions, Attitudes, Beliefs, and Values

It seemed apparent to this investigator that among the raw materials that feed into the formulation of one's values are his beliefs, attitudes, and opinions as well as the beliefs, attitudes and opinions of others. Many intricate relationships and similarities of meanings exist among these four variables, consequently, they are at times used interchangeably. An attempt was made by the present writer to define opinions, attitudes

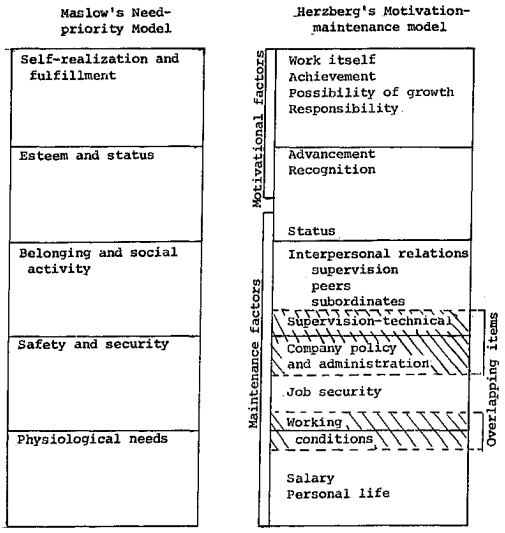

Figure 6*

A Comparison of Maslow's Need-Priority Model with Herzberg's Motivation-Maintenance Model

*Source: Davis, Keith, Human Relations at Work. New York: McGraw-Hill, 1967, p. 37.

and beliefs and to relate those concepts to what has been called "the fundamental stabilizer of human personality," one's system of values.

Opinion. Webster's New Collegiate Dictionary (1973) definition of opinion is "(1) a view, judgment or appraisal formed in the mind about a particular matter, (2) a favorable impression [opinion] and less strong than positive knowledge, (3) a notion or conviction founded on probable evidence." Social psychologists Wilson and Allport (1937) defined opinion as "expressed points of view about matters which are controversial or which are capable of controversy [p. 156]."

Opinions are referred to as the exposed ends of behavior. They are the most researched and the more "researchable" of the personality variables, opinions, attitudes, beliefs and values. Opinion appears to be the most changeable and is usually not as deeply seated in the value structure as are the other variables.

Attitude. A distinguishing difference between opinion and attitude, according to Webster's (1973) definition, is in the area of affect. In Webster's dictionary, attitude is defined as follows: "(1) operational behavior representative of feeling or conviction, (2) a disposition that is primarily grounded in affect and emotion and is expressive of opinions rather than belief, (3) an organic state of readiness to act that is often accompanied by considerable affect and that may be activated by an appropriate stimulus into significant or meaningful behavior."

Rosenberg, Hovland and others (1960) defined attitudes as "predispositions to respond in a particular way toward a specified class of objects [p. 1]." They indicated that there were three types of responses commonly used as indices of attitudes: cognitive, affective

and behavioral. They presented a schematic model (see Figure 7) that suggests that attitudes are a result of stimuli. Depending on the nature of the stimuli, attitudes are categorized as affective, cognitive or behavioral, or classified according to any combination of those three "intervening variables." Those variables seem to be important attitudinal components if one is to understand how to effect attitudinal change through appropriate leadership techniques.

Numerous studies were cited by Rosenberg et al. (1960, p. 1) in support and analysis of the process of attitude formulation and change.

Attitudes are apparently the second level, opinion being the first, of acceptable stimuli toward the direction of value formation. One's attitudes formulate as opinions coming into the cognitive process from a variety of sources, are evaluated and screened, accepted or rejected. Attitudes take on a certain amount of emotional feeling, although that feeling doesn't reach the same degree of conviction as do beliefs and subsequently values. Attitudes appear to be more sharply focused, more organized in the cognitive domain than are opinions. A greater number of affective variables have been brought in on the screening process in the formulation of attitudes than for opinion.

Belief. Belief is defined by Webster (1973) as "a conviction or persuasion of truth [p. 79]." The conviction associated with belief appears to be more deeply seated and stable than opinions or attitudes in the cognitive processes of the mind. Belief seems to be associated with faith, whereas values seem to be associated with conviction or knowledge.

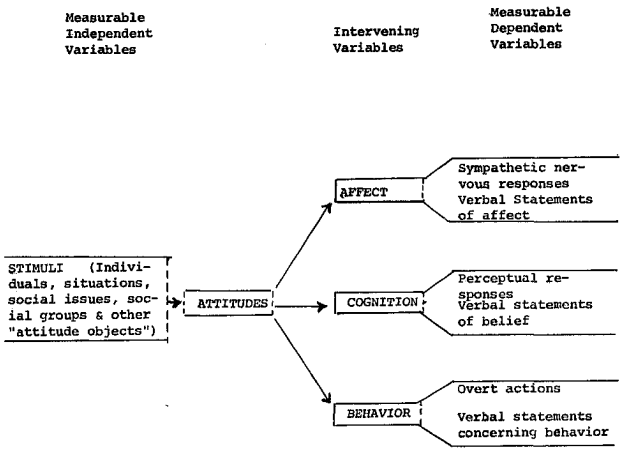

Figure 7*

Schematic Conception of Attitudes

*Source: Rosenberg, Milton J., Carl I. Hovland, William J. McGuire, Robert P. Abelson, Jack W. Brehm. Attitude Organization and Change. New Haven: Yale University Press, 1960. P. I.

Values. Raths and Associates (1966, p. 28-30) outlined "a process of valuing." They suggested that "for a value to result," there are seven requirements that must be applicable to three processes. Figure 8 names the processes and the requirements applicable to each process.

Raths (1966) further suggested eight "Value Indicators," which could infer the presence of a value but which were different from values per se. They were "expressions which approach values, but which did not meet all of the criteria [p. 30]." The value indicators suggested were: "(1) Goals and Purposes, (2) Aspirations, (3) Attitudes, (4) Interests, (5) Feelings, (6) Beliefs and Convictions, (7) Activities, and (8) Worries, Problems, Obstacles [pp. 30-33]."

A Conceptual Model

The present writer made an investigation into how opinions, attitudes and beliefs develop that culminated in a seminar research report (Anderson, 1967). Conclusions drawn by the writer in making that report suggested a circular relationship for opinions, beliefs, attitudes and values from two different perspectives. Figure 9 was prepared to illustrate the perceptual variances of the inductive and deductive approaches with regard to opinion, attitude, beliefs and values. The top half of the crude circle represents an inductive or introspective approach to personality development, beginning with values and culminating in opinions. The lower half represents deductive thought process, beginning with man's behavior in his environment and deducing from behavior what his orientation might be regarding opinions, attitudes, beliefs and ultimately values. The amount of

PROCESSES	REQUIREMENTS
I. Choosing:	(1) freely (2) from alternatives (3) after thoughtful consideration of the consequences of each alternative
II. Prizing:	(4) cherishing, being happy with the choice (5) willing to affirm the choice publicly
III. Acting:	(6) doing something with the choice (7) repeatedly, in some pattern of life

Figure 8*

Processes and Requirements for the Formulation of Values

*Source: Raths, Louis E., Merrill Harmin, Sidney B. Simon. Values in Teaching. Columbus, Ohio: Charles E. Merrill Pub., 1966, p. 30.

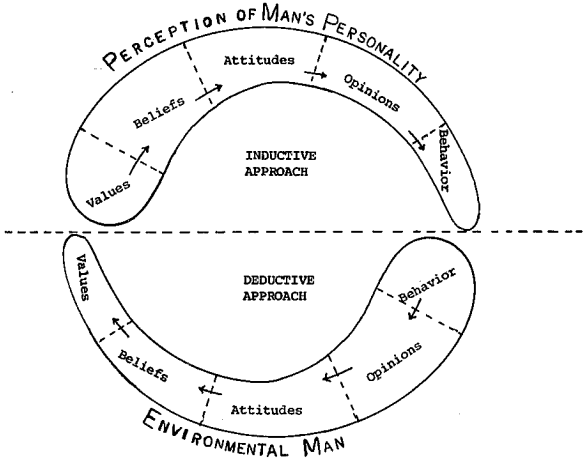

Figure 9

A Circular Approach to the Study of Man in Society in Relation to Five Personality Concepts: Values, Beliefs, Attitudes, Opinions, and Behavior

emphasis given one concept over another, and the peripheral breadth and depth of a given concept may vary according to one's specific interests.

Inductive approach. The "inductive approach" to personality development begins with one's system of values. That system is perceived to include all hereditary and environmental factors in a person's life. Those factors spawn beliefs, attitudes and opinions, all of which tend to shape behavior. This inductive process assumes experiential input in a person's life, and through varying processes of identifying values, tries to predict what beliefs, attitudes and opinions might result in a certain behavior.

Deductive approach. Deductively, behaviors are seen as reflecting opinions, and opinions as derived from attitudes, which are viewed as the result of beliefs. Beliefs are expressions of values. Through deductive logic, generalizations are made about the values one may have.

Political and social scientists are frequent users of the deductive approach in an effort to gain understanding of behaviors that are affected by each of the four above-defined variables. What is known about thought processes and the relationship of the above-named personality concepts has been obtained largely through deductively-oriented research. This type of research tests theories and assumptions about man's values, attitudes, opinions and behaviors. To study those things, it is essential to view them in an organized and logical fashion. That organization and logic is closely related to the motivation and value systems proposed by Graves (1966).

Graves' Value and Motivational Systems

With the prominence given to motivation and value systems by Graves (1966), it was incumbent on the present writer to investigate thoroughly the reasons for that prominence. Graves (1968) provided the present investigator with a rough draft of an unpublished manuscript that discussed in detail his perception of the human personality system. The manuscript contained an elaboration of the psychological concepts inherent in his hierarchical ordering system of personality structure; it also outlined the roles that he perceived motivation and value systems to play in the development of personality.

"Adult personality" was described by Graves as a complex of "bio-social, ecological" systems. The term "bio-social" was perceived to be inclusive of one's neurological system. That system included the brain, the inner self or psyche, the physical make-up of an individual, and all other intrinsic dimensions of personality. The word "ecological" had reference to the environment in which one lives, both physical and social, and to all extrinsic or external factors effecting the human personality. The union of intrinsic and extrinsic components of personality constituted Graves' broad definition of the adult personality. Within that personality framework seven behavior pattern variations were distinguishable. Those patterns are reported in Column 1, "Nature of Existence," Table 1.

In his manuscript, Graves (1968) cited many studies which reportedly substantiated in principle his behavior classification system; he cited several classifications by other writers which psychologically support

his theory. Graves' seven behavioral levels were reported to have many similarities to the four "cognitive functioning stages" proposed by Harvey, Hunt and Schroeder (1961). Work by Gardner Murphy (1947) and Henry A. Murray (1938) often was referred to as being supportive of Graves' psychological classification levels. Graves (1968) compared the "five types of chemists" and "four types of peace corps volunteers," investigated by Morris Stein (1971), with his own "seven levels," pointing out notable similarities and observable differences. He compared David Riesman's (1964) "tradition directed," "inner-directed," and "other directed" behavior types to certain of his own behavior levels. Similar comparisons were made to Eric Fromm's "character types." Maslow's (1954) need hierarchy also was cited as being psychologically supportive of Graves' theory. There was, indeed, an abundance of research to suggest that people can be grouped according to behavioral types and that those behavioral types are identifiable, although the terms vary according to definition and according to the specific social and/or psychological interest of the investigator.

Value Systems

The existence of a system or structure of values within an individual was an obvious and basic assumption made by Graves (1966, 1968) in his conceptualization of behavior levels. The human value system serves to shape human behavior and create behavioral actions and reactions from which typology judgments can be made. Graves' discussion was limited with regard to differentiating between value systems and motivation systems. Values were inferred to be basic and dominant influences that

serve as determining forces for shaping behavioral acts. In other words, values and value structures were the "root beds" from which motives feed.

Graves (1968), compared a value system to a "complex wave" which "rises into a position of dominance with other parts [motives or influences] subordinated to it [p. 52]." As each "wave" system, or behavioral classification type, recedes in its importance as a dominant centralizing force in the personality, another system (behavior classification type) rises to a position of dominance. "At any one time there appears to be," Graves pointed out, "more than one system in the personality, even if it be at the lowest level of human existence [p. 52]." As new systems take over, lower level systems are subordinated within the new system. As higher level systems dominate, lower level systems serve as "aides de camp" to the higher level systems.

The implication of Graves' model was that external stimuli, together with all genetic considerations of man, feed into the value system structure. Perceptual stimuli that penetrate one's "behavior level" screening system are cognitively and affectively evaluated. If that evaluation is knowingly accepted by the individual, it then finds lodging in one's value structure. Such stimuli thereafter affect the individual's motivation and value systems through his sensory channels to form opinions, attitudes, beliefs, and ultimately values.

Through the above discussion and definition of terms, Graves' (1968) reflections and perceptions about the way the mind works in forming values can be examined. He postulated that four conditions "of human existence must exist in order for growth or change to take place." The first was the "psyche potential"; that is, the presence

of a "higher order" system potential in the brain. The undeveloped potential must exist whether as innate ability, conceptual powers, cognitive skills and ability, human skills, or any other mental or physical reserve requirements of a given behavior level. The well known colloquialisms, "You can't get blood out of a turnip" or "You can't draw water from a dry well" would apply to this behavioral concept proposed by Graves.

"Releasor conditions" were the second and third conditions named by Graves (1968); he admitted borrowing the term from the ethologists. Those conditions were: (a) The ability to solve problems of human existence at a particular stage of development or level of existence, i.e., "coping," conceptualizing, placing a problem in a frame of cognitive reference, "ordering" it in terms of values, and having a conceptual procedure for solving such problems. (b) The "entry of the proper cognitive dissonance into the field after the problems of existence at a given level are resolved [Graves, 1968]." The "cognitive dissonance" concept, advanced by Leon Festinger, was consideration for whether or not a person would be able to adapt to the life style and conditions of the level to which he aspires. Graves affirmed that there must be cognitive and affective agreement, or a state of balance and constancy in order to continue the life style of a given level, whether that agreement is derived from inside or outside the person.

The fourth pre-existent condition was described by Graves as "readiness for movement." This condition involves the development of a psychological need to change from a present level to that of another. Cognitive dissonance becomes the impetus for movement; perceptual

insights must focus on the level of aspiration, personal needs for change to a higher order system must be felt, the individual must be confident of being able to make the transition, and he must have drive to achieve the new level.

Graves (1968, p. 37) described the mental process of change. He suggested that there is something like an off-on switch mechanism in the brain connecting to each system which can be "off," "partially on," or "all on." This conceptualization was formulated from the work of the neurologists, regarding the electrical energy of nerves and nerve message transmissions. Woolridge was cited by Graves as one authority in this field. This "pressure like" switch mechanism in the brain is made up of electrical neurological impulses consisting of human personality values and motives. Graves (1968) called it "Adult Personality as A Complex Bio-Social Ecological System [p. 37]." It was perceived that for a system to "switch on," increments of psychological force must build up. As those incremental forces build, a pressure-like valve opens; when a critical point is reached there is a spurt-like movement to the next higher and qualitatively different system. As the pre-conditions for change, mentioned above, are met and a sufficient number of conceptual switches are activated the change process is in motion. All internal and external stimuli must be in sufficient balance and sustained equilibrium for the change to stabilize at any given level.

Behavioral values, in a work environment, often involve conflicting demands from a variety of intrinsic and extrinsic sources. These demands require a system or systems of weighing and balancing values and some type of action that reflects a multitude of forces. Those values

that are dominant, because of need requirements, most generally result in actions and become an interrelated part of the personality pattern of the individual. The strength that a value pattern has varies according to the depth of one's convictions and the number of stimuli.

Motivational Systems

Graves (1966) suggested a motivational system that was interlinked with each of seven "human levels of behavior" (see Table 1, p. 51). He suggested that an effective motivational scheme for a person of one behavior type may not be effective for another individual at a different level. He provided a convincing rationale that if the value system of a person was understood, and that if the motivational forces for a value system were known, it would be possible to provide a compatible leadership style and restructure work conditions sufficiently to motivate an individual or group of individuals for maximal effectiveness.

A brief explanation of the motivations a leader might use were expressed by Graves (1966) in his article on coping with "Deterioration of Work Standards" (pp. 117-128). A brief report of some of the recommended motivation procedures is given under the heading "Levels of Human Behavior," page 50.

Motives appear to be the energizing forces for human behavior, and those forces emanate from values. Combined, they formulate the energy for work. The extent to which the leader is able to capitalize on that energy through understanding its sources and how the conditions of the work environment can be structured, could determine the extent to which workers' energy is utilized effectively.

Leadership Effectiveness Instruments

Numerous instruments have been devised in attempts to measure and/or evaluate leader behavior and leadership ideologies. One of the better-known instruments is the Leadership Behavior Description Questionnaire (LBDQ) constructed by Hemphill and Coons (1957) and refined by the Personnel Research Board at The Ohio State University. This instrument, through extensive use, has undergone at least twelve revisions in as many attempts to validate it for use in behavioral description. In 1956, it was used by Halpin (1966) on B-29 flight crews during the Korean War [p. 91]. The conclusion reached by Halpin was that airplane commanders who were rated high in both "Consideration" and "Initiating Structure" were rated high in over-all leadership effectiveness.

The LBDQ was used in an educational study by Hemphill (1955) with eighteen college department heads. Members of eighteen departments described their department heads regarding "how they believed a department head should behave." By reputation, the five department heads with the best administered departments were ranked with those perceived to be least well administered. This study confirmed in an educational situation what was earlier discovered in the study of air commanders, namely that "effective leader behavior is associated with high performance on both dimensions"--Consideration and Initiating Structure.

Halpin (1966, p. 99 ff.) reported two of his earlier studies where the LBDQ was used, first in 1955 comparing 64 school superintendents

with 132 aircraft commanders, and second, in 1956 with 50 Ohio School Superintendents in a study of perception.

The LBDQ has acquired considerable stature and a favorable reputation for use to differentiate between dimensions of "Consideration" and "Initiating Structure," and has served as a model for other survey instruments. One example was Fleishman's "Leadership Opinion Questionnaire" marketed through Science Research Associates, Inc. Another was the "Survey of Educational Leadership Practices" instrument developed and copyrighted by J. J. Valenti and C. W. Nelson in 1957. In the latter instrument teachers are asked to relate themselves to fifty given problem situations, the results of which were intended to give them a perspective of their dominant leadership values. Few instruments have held up as well as has the LBDQ regarding the dimensions of Consideration and Initiation of Structure.

In industry, Likert (1967) constructed an instrument for use in developing a "Profile of Organizational Characteristics" (p. 197 ff.) for improving effectiveness of management coordination. Reddin (1970) marketed an instrument entitled "Management Style Diagnosis Test" which was intended to help a leader identify his own dominant leadership style from a selection of eight styles incorporated into a "Tri-dimensional Grid."

The work of Roy Bryan (1937, 1958, 1963) is noteworthy to recognize for his development of teacher evaluation systems and procedures for students to rate teacher effectiveness. Bryan spent much of his professional career in examining ways to accurately identify behavioral dimensions of good teaching, and in the development of instruments for

use by students to appraise effective teaching. Much of that work was done while a member of the faculty at Western Michigan University. When Bryan retired, the work was assumed by Dr. William D. Coats. Under Coats' direction, a university-based organization called The Educator Feedback Center was created. The purpose of the Center was "to provide educational administrators with confidential feedback designed to help them work more effectively with people."

Director Coats constructed an Administrator Image Questionnaire from the resource materials left by Bryan. This instrument has received extensive use by school administrators throughout lower Michigan. The services of the Center are, at this writing, still available through the University to teachers, principals, superintendents or others who desire them.

This brief summary discusses a representative sample of some of the better-known instruments and techniques employed by researchers to quantify behavioral data into measurements of performance effectiveness.

CHAPTER III

DESIGN OF THE STUDY

Part One of this Chapter provides definitions of words and key concepts with special meanings for this study, although it will be noted that specific operational definitions for three of those concepts, "Leadership Style Descriptors," "Behavior Type Descriptors," and "Effectiveness Criteria," have been deferred to Part Two of this Chapter: Design and Instrumentation. It was deemed more appropriate to consider the detailed nature of these three concepts along with other discussion relating to the questionnaire. Part Two is a discussion of research design and instrumentation.

Part One: Definition of Terms

The words and concepts that needed careful definition in this study were leadership, leadership style, behavior type, effectiveness, effectiveness ratio score, leadership effectiveness versus productivity, congruence, work situation, and interactor. Those definitions should conceptually aid the reader to understand the framework within which they are used.

Leadership

To avoid ambiguity of definition for the word "leadership," it is necessary to distinguish among three words which are often used interchangeably: (1) leader, (2) leading, and (3) leadership. (1) Individuals who are identified as leaders in this study are public school superintendents. (2) Leading is defined as the art of utilizing one's traits, skills,

attributes, positional powers and abilities to function as a "completer, facilitator and catalyst" (Schutz, 1966, p. 10) in the establishment and attainment of goals. Leading, in Schutz's conceptual framework, does not specify, by definition, any set of behaviors. It is demonstrated ability which insures the accomplishment of: individual, group, and/or organizational goals. (3) "Leadership" is viewed by Schutz as the process of leading and administering. Important to the persons who are to provide leadership are (1) a knowledge of necessary group functions, (2) sensitivity in perceiving which group functions are not being performed optimally at a given time, (3) an ability to fulfill, or have someone else fulfill, group functions and needs optimally, and (4) a willingness on the part of the leader to do what is necessary to satisfy nomothetic and idiographic needs even though such tasks could be personally displeasing.

Leadership, in this study, is conceptually defined in a manner comparable to the definition offered by Schutz. It is the ability to function as a "completer, facilitator and catalyst," in the establishment and attainment of individual, group and/or organizational goals.

Leadership Style(s)

Leadership style is defined as the manner in which the leader (superintendent) performs his community leadership function as a "completer, facilitator and catalyst." The Leadership Styles referred to throughout this study were defined by behaviorally descriptive paragraphs, one for each of five of the seven styles suggested by Graves (1966, p. 121). Descriptions of those styles are found under

the heading "Design and Instrumentation," sub-heading "Questionnaire," and in the LBQ, Part IV (Appendix B).

Graves' (1966) descriptions of styles were somewhat discernable by their titles: "Moralistic and Prescriptive," "Personal, Prescriptive, and Hard Bargaining," "Participative--Substitutive," "Goalsetting without Prescribing Means to Goals," and "Acceptance and Support" [p. 121]. Those style titles were, however, deemed inappropriate for effective use in survey data collection and for quick reference identification in this study. They were, therefore, changed to "Traditional," "Prescriptive," "People-centered," "Transactional" and "Supportive."

Behavior Types

The concept of "Behavior Level" rather than "Behavior Type" was used by Graves (1966). His apparent purpose was to denote stages of maturational growth as identified by motive and value systems held by people. It was the present investigator's opinion that, for the purposes of this study, it would be too easy for respondents to make value judgments because certain levels might seem socially or maturationally more desirable than others. This investigation was concerned more with comparisons between styles of leadership and types of behavior as they fit Graves' congruency model for effectiveness than with the hierarchial arrangement of behavior levels. For this reason the word "Level" was changed to "Type" in the survey instrument and in all correspondence sent to subjects participating in the study.

A conscious attempt was made to use words and phrases in the Behavior Type descriptor statements that would elicit as much objectivity as possible. There was an equally conscious attempt to select

words and phrases for Behavior Type descriptors that avoided obvious connotations of "social desirability."

The designation "human behavior type" is not conceptualized as an absolute state. Rather, it is a descriptive phrase referring to dominant behavioral patterns of people based on two variables of personality, namely motivation and values. Five behavior types were descriptively defined in each of five short paragraphs. Each paragraph described behavioral characteristics of a given behavior type. Those paragraph descriptors are found under the heading "Design and Instrumentation," sub-heading "Questionnaire," and in the LBQ, Part III (Appendix B).

Effectiveness

Effectiveness was defined by Barnard (1938) as the "attainment of specific aims and objectives [pp. 19-20]." The criteria for "attainment" vary, obviously, with individual evaluators. Therefore, there was need to further operationalize Barnard's definition.

Effectiveness was perceived in this study as a conceptual image, often a value judgment, of one's capability and performance in a position. Two variables were believed to be inherent in those images or value judgments. The first was the expectation placed on the holder of a "nomothetic" position and role. That is, the "ideal" expectation one holds for a person in the role of superintendent of schools. The second variable dealt with how the superintendent performed in that role. This variable was called "real" effectiveness, and might have included value judgments ranging from hearsay to elaborate evaluation systems.

The plethora of criteria that can conceivably be used to judge effectiveness is self-evident. Therefore, to provide uniform criteria for judging effectiveness, twenty specific criteria were selected and they were incorporated into the instrument. Judgments were requested for both "Real" and "Ideal" perceptions, first by superintendents about their own performance, and second by interactors about the superintendents' performance. Those judgments were to be made on a five-point rating scale. Therefore, effectiveness was defined operationally as a ratio between an evaluator's score of the superintendent's "Real" performance and the score for "Ideal" performance expectation according to designated criteria.

Effectiveness-Ratio Score

Part II of the Leadership Behavior Questionnaire (LBQ) consisted of twenty effectiveness criteria. The LBQ "Answer Sheet" called for an effectiveness rating of the person for each criterion on a five-point rating scale. The higher the score, the more favorable the rating. Each respondent was asked to rate the Superintendent first on "Real" performance and second on "Ideal" expectation of performance. Scores of each interactor were totaled for each perceptual dimension. The "Effectiveness Comparative-Ratio Score" was the composite score of "Real" performance divided by the composite score for "Ideal" expectation.

Leadership Effectiveness vs. Productivity

The word "productivity," suggested by Graves (1966), has had frequent use in business in reference to products or production quotas. This word usage would seem to have more practical application in

business or industry than in education. Business and industry deal frequently with a tangible product, whereas the "product" of education is largely intangible. For that reason the word "effectiveness" was substituted for "productivity."

Congruence

Congruence was defined as a compatible relationship between a specified behavior type and a designated leadership style, as theorized in the hypotheses. It is stated in the hypotheses that the congruent

Table 2

Congruent Relationships Between Behavior Types and Leadership Styles

(1)	(2) BEHAVIOR TYPES		(3) LEADERSHIP STYLES	
Graves Level Design.	(a) "Type" Name	(b) LBQ Type #	(a) "Style" Name	(b) LBQ Style #
3*	Awakening	3	Traditional	1
4	Aggressive Power-seeking	1	Prescriptive	2
5	Socio-Centric	5	People-Centered	3
6	Aggressive-Individualistic	2	Transactional	4
7	Pacifistic-Individualistic	4	Supportive	5

*Note: Levels one and two (autistic and animistic) were, by description, so foreign to the subjects sampled, and the nature of this study, that no useful purpose would have been served by including them.

relationships specified will result in higher effectiveness than will incongruous relationships. Those relationships that Graves (1966) theorized were congruent are displayed in Table 1. For the purposes of this study, all other pairings are considered to be incongruent.

The numerical level designators in Column 1 of Table 2 correspond to the "Behavior Levels" suggested by Graves (1966) in his hierarchical model (see Table 1, page 51). Column 2a provides the name labels given to behavior types. Those types are referred to as behavior "levels" by Graves in his model. Column 3a identifies the name designations assigned by this writer to the leadership styles suggested by Graves. Columns 2b and 3b identify the numbers assigned to leadership style and behavior type descriptors as they appear in Parts III and IV of the Leadership Behavior Questionnaire (Appendix B). For example, the behavior type represented in Column 2b (level designation 3, Column 1) is congruent with the leadership style represented by the number in Column 3b of the same level designation.

Work Situation

The term "work situation" was intended to include all interaction, whether for business or pleasure, that might relate to the effectiveness of the superintendent. This refers to those interactions that result in community visibility as opposed to one's routine personal and domestic life, except when the latter, for whatever reason, is given public attention. Superintendents are not expected to be on duty "round the clock." Nevertheless, social relationships, off-duty activities, and other informal functions can and do provide settings for the forming of opinions and the development of attitudes by school district

constituents. Opinions and attitudes are often made known throughout the community via both formal and informal communication channels. It is not uncommon for such opinions and attitudes to become part of the perceptual input that an evaluating "interactor" receives. Of course, opinions or attitudes of others may affect the effectiveness rating given a superintendent by an evaluating constituent. When this evaluative phenomenon occurs in the community, then the superintendent's private life becomes part of his "work situation." This broad interpretation of the superintendent's work situation was perceived to be necessary because of the high visibility of the superintendent, his responsibility, and the expectations held for him.

Interactors

The term "Interactors" refers to those people who presumably interact with the superintendent because of the school-related positions which they hold. Organizations and the positions from which interactors were sought are listed in Table 3. It will be noted (see Classifications 5 and 9 on the form "Roster of District Respondents," Appendix A-3) that one option was provided for in this selection. That option was to be used only in the event that one of the specified positions did not exist within a given district. A superintendent in such a situation was asked to suggest a school related position whose spokesman had a considerable amount of contact with him.

Part Two: Design and Instrumentation

The design of this study was intended to obtain empirical data about three dimensions of leadership, (leadership style, behavior type,

Table 3

Positions Held by School District Interactors and the School Organizations Which They Represented

POSITION	ORGANIZATION
2.* Principal	Secondary School
3. Principal	Elementary School
4. President	Local Education Association or Teachers Union
5. President/Chairman	School Curriculum Council
6. President	Board of Education
7. Vice President or Secretary	Board of Education
8. President or Chairman	Citizens Advisory Council or PTA/PTO Group
9. Other	(School Related Organization Selected by Superintendent)

*Note: The numbers assigned to "Position" in this table correspond with the numbers assigned to Interactor positions in the Roster of District Respondents form (Appendix A-3).

and effectiveness ratings), to match congruent style/type relationship scores with scores that are incongruent, and to test them for significance. The data were based upon observations and perceptions that allowed for various types of perceptual judgment of, and by, the subjects involved. Those observations and perceptual judgments were translated into rating scores to aid the writer quantify and analyze the data. The methods employed to obtain those data required a minimum of three careful

considerations if reliability and validity criteria were to be met. It was considered necessary to:

1. Develop a procedure for classifying interactors, with ease and reasonable accuracy, according to selected types of human behavior.

2. Devise a valid and reliable method for identifying the leadership style utilized by a superintendent with each of his interactors.

3. Obtain, or develop, measurable criteria for leader effectiveness and a scale for quantifying that data.

The data were obtained by the use of a survey questionnaire designed to meet these criteria.

Methodology for Testing Hypotheses

Two tests to determine statistical significance were considered for use. The well known Student's *t* test, frequently used for parametric research, was one; the other was the Mann-Whitney *U* test. The Mann-Whitney *U* test was selected because it is particularly well suited for use with non-parametric data and for use with groups that have small N's. The use of Mann-Whitney *U* also avoids some of the parametric assumptions associated with the *t* test.

A computer program for the Mann-Whitney *U* test was used to calculate the *U* statistic for the difference between effectiveness "ratio score" means of congruent versus incongruent style/type relationships. That is, effectiveness scores of congruent style/type relationships were compared with effectiveness scores of incongruent relationships. All differences are

reported at obtained levels of probability. However, discussion of the findings are largely restricted to those having at least an .05 level of significance.

Hypotheses Testing Procedures

It was explained in Chapter I that certain of the 25 hypotheses are worded similarly, except for differences in anticipated respondent perceptions and in type/style congruencies. Table 4 diagrams the organizational structure for the 25 hypotheses. The asterisks (*) following numbers 1, 7, 13, 19, and 25 identify those hypotheses that were selected for use as "model hypotheses." The diagram also shows at a glance the "LB-series" and "P-series" relationships for each of the 25 hypotheses.

Due to the large number of hypotheses, the complexity of the interrelationships being studied and for purposes of expediency and accuracy, the data were transferred to computer cards. Those data were verified and then, with the aid of the computer, analyzed.

Hypothesis Models

In the following models, five hypotheses are stated, one from each of the five "P" (Perception) series. Each hypothesis serves as an operational model for all hypotheses in that "P" series; only the respective, congruent leadership style and behavior type from the "LB" (Leadership Style/Behavior Type) sub-statements needs to be added. It will be noted that each model statement includes a different congruent (LB series) sub-statement.

Table 4

Interrelationship Diagram of Hypothesis Number Assigned to Each "Perception" Statement and "Style/type" Sub-statement

Type of Perception[1]	Congruent Leadership Style Behavior Type Pattern and Hypothesis Number				
	LB 1 - 3[#]	LB 2 - 1	LB 3 - 5	LB 4 - 2	LB 5 - 4
P - I	1[*]	2	3	4	5
P - II	6	7[*]	8	9	10
P - III	11	12	13[*]	14	15
P - IV	16	17	18	19[*]	20
P - V	21	22	23	24	25[*]

Note:

1 Refers to the "P" (Perception) series of hypothesis statements in Chapter I, pp. 5-6.

\# The first number corresponds with the same number in Column 3 of Table 2; the second number corresponds with a like number in Column 2 of the same table, p. 86.

* Identifies those hypotheses that were stated as operational models.

Hypothesis 1. Hypothesis Model 1 (see Table 4) is composed of statement "P-I" and sub-statement "LB-1" as indicated on Page 5 of Chapter I. It is operationally stated as follows:

> 1. The Interactors' rating of Superintendent effectiveness will be higher for congruent than for incongruent relationships if the Interactor's perception of his own behavior type is "Awakening" and the Superintendent's evaluation of his own leadership style is "Traditional."

This hypothesis was to be tested by sorting all congruent style/type pairings into one sub-set and all incongruent pairings into another. The effectiveness ratio scores were to be computed by dividing the Subject's "Real" score by his "Ideal" (expected) score. Ratio score means were to be computed for all congruent relationships stated in the hypothesis; means of incongruent (all other combinations) relationships were likewise computed. The U test was then to be applied to determine the difference between ratio score means for congruent relationships as compared to the ratio score means of incongruent relationships. Relationships at the .05 level of significance or above were to be identified.

Hypothesis 7. Hypothesis Model Number 7 (see Table 4) is composed of hypothesis statement "P-II" and sub-statement "LB-2" as indicated on Page 5 of Chapter I. It is operationally stated as follows:

> 7. The Interactors' rating of Superintendent effectiveness will be higher for congruent than for incongruent relationships if the Superintendent's

perception of the Interactor's behavior type is "Aggressive, Power-seeking" and the Interactor's perception of the Superintendent's leadership style is "Prescriptive."

Note that the basic difference between Hypothesis 1 and Hypothesis 7 is one of perception, and that the sub-statements "LB 1-5" are renumbered and repeated under each succeeding "P" series of statements. The testing procedure for this hypothesis and all other hypotheses is identical to that explained for Hypothesis 1.

Hypothesis 13. Hypothesis Model 13 (see Table 4) is composed of Hypothesis statement "P-III" and sub-statement "LB-3" as indicated on Page 6 of Chapter I. It is operationally stated as follows:

13. The Interactors' rating of Superintendent effectiveness will be higher for congruent than for incongruent relationships if the Superintendent's perception of his own leadership style is "People centered" and his perception of each Interactor's behavior type is "Socio-centric."

Hypothesis 19. Hypothesis Model 19 (see Table 4) is composed of Hypothesis statement "P-IV" and sub-statement "LB-4" as indicated on Page 6 of Chapter I. It is operationally stated as follows:

19. The Interactors' rating of Superintendent effectiveness will be higher for congruent than for incongruent relationships if the Interactor's perception of his own behavior type is "Aggressive,

Individualistic" and his perception of the Superintendent's leadership style is "Transactional."

Hypothesis 25. Hypothesis Model 25 is composed of Hypothesis statement "P-V" and sub-statement "LB-5" as indicated on Page 6 of Chapter I. It is operationally stated as follows:

> 25. The Interactors' rating of Superintendent effectiveness will be higher for congruent than for incongruent relationships if Superintendent and respective Interactors mutually perceive the Interactors' behavior type to be "Pacifistic, Individualistic" and their mutual perceptions about the Superintendent's leadership style is "Supportive."

Numerous relationships and observations were of interest in this exploratory study. The data analysis permits interesting comparisons with regard to perceptual relationships, and frequency distributions as to perceived behavior types and leadership styles of both Superintendents and Interactors. Data analyses are reported in Chapter IV.

Population and Sample

The population consisted of (1) public school superintendents and (2) people (interactors) associated with education in the community who "interact" with the superintendent. Superintendents were selected because they were considered to be the "prime community educational leaders."

The primary reasons for the selection of the seven interactor positions identified were (1) the expectant, perhaps inevitable, interaction between the superintendent and each of the designated

interactors, and (2) the diversification and various levels of interest that interactors in those positions were likely to represent. The particular interactor positions selected provided the study with people who had significantly different relationships to the superintendent. For example, school board members collectively are the employer of the superintendent, while teachers and principals holding any of the positions specified are either recommended for employment or are employed by the superintendent, and parents and other citizens serve education in an advisory or consultant capacity to the superintendent.

The survey sample numbered 104 superintendents of K - 12 public school systems and an estimate of 692 interactors within those systems.

The estimate of 692 interactor positions is less than an absolute potential number that may be perceived by multiplying the number of positions by the number of districts surveyed (7 x 104 = 728). The reason for the reduced estimate is simply that not all K - 12 public school systems have people serving in all of the seven interactor positions designated in the study.

The estimate of 692 interactor positions was based upon data received from the 52 participating districts. It was obtained by, first, counting 7 interactor positions for each of the 52 responding districts (7 x 52 = 364). Second, that total figure was divided into the actual number of positions filled (347) in the 52 responding districts as reported by superintendents on the form "Roster of District Respondents" (Appendix A-3). Existing positions (347) divided by potential positions (364) provided a realistic percentage of positions

that did actually exist in the sample (95%). The maximum potential for 104 participating districts (728) was then multiplied by the percentage factor (95%); the resultant dividend (692) interactors, provided a reasonable estimate of existing interactor positions in the total survey sample. The combined number of potential respondents, based upon a sample size of 104 superintendents and an estimated number of 692 interactors was 796 people all of whom were located in Southwestern Michigan.

Random sampling procedures were not used for selection of school systems to participate in the study. Little purpose, it was believed, would have been served by so doing. The rationale employed was merely to obtain a cross section of educational leadership settings with varying population sizes and diversified rural-urban compositions. It was apparent that this objective was achieved in the sample selected.

Each superintendent was asked to identify the person (interactor) serving in each of seven positions identified by this investigator on the form "Roster of District Respondents" (Appendix A). Any superintendent of a district who had more than one school principal at a given level was asked to select one at random. In school districts that were not sufficiently large in size or whose administrative structure did not provide for a designated position (i.e., President/Chairman of School Curriculum Council or President/Chairman of a Citizen's Advisory Council/PTA/PTO) the superintendent was asked to select at will someone who was the "head of an organization with greatest superintendent interaction."

The sample represented the educational leadership of nearly 400,000 public school children in school districts ranging in size

from one enrolling 500 pupils to a district with an enrollment in excess of 33,000 children. Enrollment statistics were obtained from the Michigan Education Directory and Buyer's Guide, 1971-72.

Procedures

Letters (Appendix A-1, 4), along with accompanying survey information, were mailed to 104 superintendents in April, 1972, requesting their participation in the study. The letter also requested each superintendent to obtain the cooperation and participation of up to seven other people (Interactors) from his district.

Included with the superintendent's letter were the following:

1. (For Superintendent) A Leadership Behavior Questionnaire and Answer Sheet (Appendix B-1, 2) to be completed by the superintendent, a form entitled "Roster of District Respondents" (Appendix A-3) requesting the names, addresses and phone numbers of interactors; an endorsement memo (Appendix A-2), and a self-addressed and stamped return envelope.

2. (For Interactors) Seven introductory letters (Appendix A-4) for each of the seven designated interactors, seven questionnaires and answer sheets (Appendix B-3, 4), seven endorsement memos (Appendix A-2) and seven self-addressed and stamped return envelopes.

In the introductory letter, each superintendent was asked to distribute to interactors a complete questionnaire set. Each interactor

was instructed to return the completed answer sheet directly to the investigator.

Because of sensitivity associated with some of the information in the questionnaire, it was considered important for the researcher to establish as much professional credibility as possible. In an attempt to achieve that credibility, "endorsement memos" approving of the study were requested from people whose names were known and respected by a large number of those who would be participating. A joint memo of endorsement was requested and obtained from the Executive Secretary of the Michigan School Boards Association and the Executive Secretary of the Michigan Association of School Administrators (Appendix A-2). That memo encouraged subjects to participate in the study.

A further effort was made to establish confidence and credibility for the investigation by requesting that the study be conducted through Western Michigan University's Educator Feedback Center. That request was granted. Letterhead paper from the Feedback Center was used for all correspondence and an endorsement signature by the Head of the Feedback Center accompanied that of the investigator.

A further attempt to secure cooperation from the respondents was made by requesting endorsement of the study by the Head of the Department of Educational Leadership at Western Michigan University and by this candidate's doctoral advisor. Those endorsements were also granted.

Approximately one month following the initial mailing of data to superintendents, two types of follow-up letters were sent to subjects whose responses had not been received. One letter, related to the superintendent in his role, was sent to those superintendents in the

sampling who had not yet responded to the initial request (Appendix C-1). A similar letter, altered for appropriateness, went to interactors of participating districts (Appendix C-2). Names and addresses of interactors were obtained from the "Roster of District Respondents" form (Appendix A-3) returned by superintendents who volunteered participation.

Instrumentation

The Instrument (see Appendix B) used for data collection was a normative survey type questionnaire entitled "The Leadership Behavior Questionnaire" (LBQ). It was composed of four parts and was prepared in two forms, color coded for ease of identification. The LBQ "Superintendent's Form" and Answer Sheets were printed on beige paper; the LBQ "Interactor Form" and Answer Sheets were reproduced on green paper stock. The four parts consisted of:

Part I: DISTRICT NAME AND POSITION IDENTIFICATION

Part II: REAL--IDEAL LEADERSHIP EFFECTIVENESS RATING SCALE

Part III: DESCRIPTIONS OF HUMAN BEHAVIOR TYPES

Part IV: DESCRIPTIONS OF LEADERSHIP STYLES

The "Answer Sheets" for each of the LBQ forms also were prepared and color coded. The directions on each form were worded specifically for those persons expected to respond to it, either superintendents or interactors. The purpose for the two forms was to avoid unnecessary confusion and to obtain more accurate data.

It will be noted that on the "Answer Sheets," in Parts III and IV of the LBQ "Superintendent's Form" (Appendix B-2), superintendents were requested to provide information about behavior types for each of their interactors and also to provide information regarding the leadership

styles they perceived themselves using with each interactor. On the "Answer Sheets" for the Interactor Form of the LBQ (Appendix B-4), each interactor was requested to provide information about his own behavior type (Part III) and to provide perceptual information about the perceived leadership style of his superintendent (Part IV). All other requests on the two forms were identical.

Part I. Part I of the Leadership Behavior Questionnaire consisted of information that was to be used for identification and association purposes. On the "Superintendent's Form" only the school district's name was requested; the position was evident by the form itself. On the "Interactor Form," the school district was requested and also the position held by each interactor as specified on the LBQ Answer Sheet (Appendix B).

Part II. Part II of the Leadership Behavior Questionnaire requested "Real" and "Ideal" perceptual responses from subjects relative to criteria designed to measure superintendent effectiveness. Effectiveness was determined by "Real" and "Ideal" responses to a series of twenty evaluative type questions. Those questions came primarily from (1) a questionnaire used by Western Michigan University's Educator Feedback Center, entitled the "Administrator Image Questionnaire," and secondarily from (2) an effectiveness scale used by Schutz (1966) in his study of leadership determinants. Some questions were reworded slightly to fit the parameters of this study; however, caution was exercised to avoid disturbing any existing reliability and validity factors through adaptation of those instruments.

The questions focused upon knowledge in a variety of areas, operational procedures, human relations skills, technical skills, and personal attributes. Each question was to be answered from two perspectives--"Real" and "Ideal." The "Real" evaluation requested a "self-perceptual evaluation" by the superintendent and a perceptual evaluation by the interactor of the superintendent's effectiveness. The "Ideal" evaluation consisted of a request for responses as to traits and skills presumed necessary for the superintendent who wants to be an effective educational leader in a given district. Again, the superintendent's evaluation was of self, and the interactor's evaluation was of the superintendent.

The effectiveness criteria used on both Superintendent and Interactor forms were as follows (see Appendix B-1, 3; Part II):

BUSINESS OPERATIONS: (demonstrates a knowledge and understanding of school finance, law and business operations.)

PERSONNEL POLICIES: (demonstrates a knowledge of sound personnel policies and translates that knowledge into practice.)

RESEARCH & CURRICULUM: (demonstrates a knowledge of research and curricular needs of children.)

ABILITY TO DELEGATE RESPONSIBILITY: (assigns tasks to personnel capable of carrying them out.)

DECISION-MAKING ABILITY: (issues constructive, appropriate and timely decisions.)

MANAGERIAL SKILLS: (coordinates the efforts of those responsible to him so that the organization operates efficiently.)

LEADERSHIP SKILLS: (exhibits those qualities and skills which facilitates the attainment of goals that are mutually acceptable.)

ENCOURAGEMENT: (encourages the raising of questions and the expression of opinion.)

DRIVE & INNOVATIVENESS: (stimulates initiative and willingness to accomplish meaningful goals and try new approaches and methods.)

COMMUNICATION: (defines and explains expectations of staff members, communicates articulately and expresses ideas smoothly.)

EVALUATING ABILITY: (evaluates programs, practices and issues objectively.)

AWARENESS: (reveals awareness of problems on all levels--Board of Education, community, staff, students.)

SELF-CONTROL: (maintains control of emotions when things are not going right.)

SENSE OF HUMOR: (possesses a sense of the ridiculous and the ability to laugh at personal mistakes.)

PERFORMANCE UNDER STRESS: (maintains perspective, exhibits confidence and successfully manages stress situations.)

ATTITUDE TOWARD JOB: (shows personal interest and enthusiasm for work.)

FLEXIBILITY: (adjusts rapidly to needed changes in plans or procedures.)

MORALE MAINTENANCE ABILITY: (creates a feeling of unity and enthusiasm among those with whom he works.)

CONSIDERATION OF OTHERS: (demonstrates patience, understanding, consideration and courtesy in school-community relationships.)

APPEARANCE: (shows good taste in grooming and dresses appropriately.)

Each respondent was asked to provide two responses for each criterion--"Real" and "Ideal"--by checking that one of five boxes on the Answer Sheet which indicated his perception. The categories on the evaluation scale were (1) Never, (2) Seldom, (3) Occasionally, (4) Often, and (5) Always.

The maximum effectiveness score for each perceptual view was 100 points. The scores recorded for "Real" performance were divided by perceived scores for "Ideal" expectation, providing composite "Comparative Ratio" scores of superintendent effectiveness. Where "performance" scores exceeded the scores representing "expectation" the "Comparative Ratio" scores were in excess of 1.00. In those instances where "expectation" was greater than performance, as represented by the evaluative criteria, the comparative ratio scores were less than 1.00.

Part III. Part III of the Leadership Behavior Questionnaire included descriptive statements of each of five human behavior types. Those descriptors were condensed versions of the behavior types developed by Graves. The investigator drew from unpublished notes obtained from Graves (1968) to sharpen the focus and condense the descriptors to meet brevity and clarity requirements for this study. Those descriptor statements, appearing on Page 3 of the Leadership Behavior Questionnaire (Appendix B-1, 3), were:

> BEHAVIOR TYPE I: This type person is independent, aggressive, and "inner-directed"; believes in the power of self and in his right to do as he pleases; suspicions control by authority, rules, laws and regulations; may seem indifferent and neglectful in human relations; champions causes without a need for social approval.
>
> BEHAVIOR TYPE II: This type person is interdependent as opposed to independent, confident and is motivated by a strong need to achieve; seeks personal fulfillment through achieving organizational goals in his own way; respects standards, values and beliefs held by other people; is neutral regarding rules, tries to understand their genesis and function, and strives to change organizational structures that are inhibitive.

BEHAVIOR TYPE III: This type person accepts authoritative procedures and practices, and relies heavily upon time honored and tested traditions; judges tasks and rules by right and wrong, good--bad, true--false values; is organization oriented rather than people oriented; evaluates other people and things by his own value system; avoids ambiguity; seeks organized and structured work environment; is happy working within prescribed parameters.

BEHAVIOR TYPE IV: This type person is objective and undemonstrative to organizational policies, politics and disputes; pursues work in his own way, striving for personal fulfillment rather than self-esteem or status; accepts reasonable management rules and goals, and is most productive when free from rigid controls; avoids organizational structures that do not conform to his motives and values; uses information judiciously, perceptively and creatively.

BEHAVIOR TYPE V: This type person is gregarious, tends to show "people concern" over production, and seeks a congenial atmosphere and a comfortable work pace and setting; likes to please others, and seeks their approval; finds security and comfort in identifying with the group; enjoys a wide circle of involvement; finds fulfillment in recognition and in being held in high esteem by others.

Each superintendent recorded on an answer sheet his perception of each of the seven designated district interactors regarding behavior type in a work situation, according to three criteria, "Most Like," "Next Most Like," and "Least Like." Each interactor was requested to provide a self-perception evaluation of his/her own behavioral characteristics typifying those that were "Most Like," "Next Most Like," and "Least Like" themselves.

Part IV. Part IV of the Leadership Behavior Questionnaire form was designed to obtain indication of perceptions of leadership style. Five descriptive statements were prepared, again from the unpublished notes

obtained from Graves (1968), to describe five styles of leadership. Those also were edited and condensed for brevity and clarity. Those descriptors, which appear on Page 4 of the "Leadership Behavior Questionnaire" (Appendix B-1, 3), were:

> 1. Traditional. This "traditional" style emphasizes the adherance to and utilization of policies, rules, procedures, customs and cultural values; tends toward being organization centered.
>
> 2. Prescriptive. This "prescriptive" style is often viewed as being autocratic; exhibits confidence of position, technical competence and expertise; utilizes persuasion, hard bargaining and/or positional authority to achieve goals.
>
> 3. People Centered. This "people centered" style utilizes group consideration and social approval techniques; seeks rapport with associates and subordinates and relies on skill in human aspects of administration.
>
> 4. Transactional. This "transactional" style involves technical competence and evidences group planning, involvement, task delegation and persuasive techniques for goal accomplishment.
>
> 5. Supportive. This "supportive" style integrates knowledge skills and personal consideration skills for goal accomplishment; provides encouragement and support for accomplishment of objectives; delegates, informs and stimulates for goal attainment.

Each superintendent was asked to identify his self-perception of the style that he used with each designated interactor; each interactor indicated the style that he/she perceived their superintendent used with them, on a "Most Like," "Next Most Like," and "Least Like" basis.

Questionnaire Preparation

The Leadership Behavior Questionnaire was subjected to four major revisions and each was presented to a number of people for their critiques. The original draft was changed from a single form for all respondents to two forms, one for superintendents and one for interactors. The second draft was presented to several discriminating associates who offered suggestions for condensing the amount of reading required in Parts III and IV. The third draft was presented to a research seminar class at Western Michigan University, and from the members of this group came a number of excellent recommendations and suggestions. Draft four was presented to a few superintendents as a "dry run." From these people came practical suggestions and corrections that were incorporated into the printed forms as they appear in Appendix "B." The "de-bugging" process was carefully planned and conscientiously pursued in the interest of developing an instrument that would be practical and reliable.

CHAPTER IV

FINDINGS

This chapter is a report of the findings from data submitted by superintendents and interactors as a result of their responses to the Leadership Behavior Questionnaire which was developed for this study. The report is divided into three sections: (1) survey response, (2) testing of hypotheses, and (3) other findings.

Survey Response

Survey data packets were sent to 104 superintendents serving a like number of public school districts, which, with one exception, were all located in Southwestern Michigan. The 104 districts, located in 18 counties, all shared responsibility for the education of nearly 400,000 public school children. Completed survey forms were returned by superintendents and/or interactors from 59 of the 104 school districts, and the responding superintendents reported that their 59 districts had a combined enrollment of over 232,000 children.

Table 5 identifies the counties in which participating districts lie. It also lists the number of districts from each county (Column 2) included in the sample, the per cent of those districts participating in the study (Column 6), and the reported number and per cent (Columns 5 and 7) of students enrolled in each of those districts. Eighteen counties were involved, seventeen of which were South and West of a line extending from Muskegon to Lansing to Jackson and continuing South to the Michigan/Indiana state line. The lone exception to the Southwest

Table 5

Summary of Districts Surveyed, Districts Responding and Student Enrollment

	Sample		Return		% Return	
(1) County	(2) No. Dist.	(3) Student Enroll.	(4) No. Dist.	(5) Student Enroll.	(6) No. Dist.	(7) % Stud. Represen.
Allegan	8	15,714	5	11,073	62.5	70.5
Barry	2	6,110	2	6,110	100.0	100.0
Berrien	11	37,344	10	35,844	91.0	96.0
Branch	4	10,457	0	00	0.0	0.0
Calhoun	8	29,611	4	10,419	50.0	35.2
Cass	4	9,372	2	4,188	50.0	44.7
Eaton	5	15,936	1	3,574	20.0	22.4
Genesee*	1	5,392	1	5,392	100.0	100.0
Hillsdale	2	3,593	1	2,803	50.0	78.0
Ingham	8	56,740	5	45,389	62.5	80.0
Ionia	2	5,050	1	3,050	50.0	60.4
Jackson	5	24,217	1	4,202	20.0	17.4
Kalamazoo	7	28,814	4	23,370	57.1	81.1
Kent	12	72,788	7	27,199	58.3	37.4
Muskegon	6	32,133	4	18,492	66.7	57.5
Ottawa	6	24,295	5	22,062	83.3	90.8
St. Joseph	5	7,611	3	5,469	60.0	71.9
Van Buren	8	13,643	3	4,055	37.5	29.7
TOTAL	104	398,820	59	232,691	56.7	58.3

Note: * Indicates the only district not located in Southwestern Michigan.

Michigan sample was one district in Genesee County. This district was invited to participate due to a personal acquaintance of this investigator with the superintendent, and because of a desire by the investigator to have another district represented in the enrollment classification in which that particular district would be classified.

An attempt was made to obtain a representative sample in accordance with three criteria: (1) size large enough to make it probable that the interactor positions designated in the study would exist in the district, (2) over-all composition of the sampled districts that would reflect divergent socio-economic conditions, and (3) sample large enough to make probable the existence of a variety of leadership conditions and situations. The first criterion was controlled to the extent that only districts with a minimum of 500 students were included in the sample. The second criterion was satisfied, in the mind of the writer, after examination of State Equalized Valuation (SEV) figures for those school-communities and utilization of personal knowledge of socio-economic conditions of many communities in the districts surveyed. The third criterion was not controlled; it was merely an assumption that varying enrollments and socio-economic conditions would provide settings with diverse leadership conditions and situations. Based upon these criteria, it was this investigator's judgment that the sample was adequately representative.

Table 6 displays data about the districts sampled according to the number of students enrolled in those districts. It also shows numbers and per cents of districts that responded within each student enrollment classification size. The per cent of districts participating

Table 6

District Distribution by Size of Student Enrollment, Number and Per Cent of Responding Districts

District Description	Student Enrollment Classification												
	500- 1,000	1,001- 1,500	1,501- 2,000	2,001- 2,500	2,501- 3,000	3,001- 3,500	3,501- 4,000	4,001- 4,500	4,501- 5,000	5,001- 5,500	5,501- 6,000	6,000-10,000	10,000-35,000	TOTAL
Number of Districts Sampled	8	13	15	13	6	10	12	8	4	3	1	7	4	104
Number of Districts Responding	5	6	3	8	5	7	7	6	3	2	0	4	3	59
% of Sampled Districts Responding	63	46	2	62	83	70	58	75	75	66	0	57	75	57%

ranged from 0% in districts enrolling 5501-6000 students to 83% for those with student enrollments of 2501-3000. Any significance attributed to the lack of response with an N of "1," as in the lone district enrolling 5501-6000 students, is questionable. Only 2 of 15, or 2%, of the districts with a student enrollment of 1501-2000 responded. The return for districts in this classification was obviously out of proportion to the return in other enrollment classifications. If one were to combine the returns for the 1001-1500 and 1501-2000 enrollment groups, the combined return would be 32%, which would still be a lower per cent of return than for any other enrollment span.

One or more subjects in 59 of the 104 district sample returned data to the investigator. That number was determined by a "check-off" of returned LBQ "Answer Sheets" from the districts surveyed. Table 7 provides a summary of the number of LBQ Answer Sheets returned, totaled according to "Position Classification." The apparent conflict between the number of Answer Sheets reported as returned (52) in Column 4 of Table 7 opposite the column heading "Position Classifications" 1 and 2, as opposed to the reported number in Table 6 (59) can be resolved very simply. Not all of the subjects elected to participate who were requested to do so. This was true of both superintendents and interactors. A superintendent, in some instances, distributed packets to one or more of the designated interactors in his district and did not himself respond by returning the LBQ Answer Sheet as requested. The only way that this investigator knew whether an interactor received his materials from his superintendent was the actual completion and return of the LBQ Answer Sheet. Based upon a count some data were returned from seven districts

Table 7

Leadership Behavior Questionnaire Response
by Position Designation

(1) Position Classification	(2) Number in Sample	Number (3) Estd. Distrb. by Supt.	Number (4) Answer Sheet Returns	(5) Per cent of Return
Superintendent of Schools	104	--	52	50
Interactors:				
2. Principal, Secondary Sch.	104	59	52	88
3. Principal, Elementary Sch.	104	59	59	100
4. Local Education Association/Teachers Union, President	104	59	39	66
5. School Curriculum Council President	104	37*	28	76
6. Board of Education, Pres.	104	59	28	47
7. Board of Education, Vice President	104	59	35	59
8. Citizens Advisory Council, PTA/PTO, Pres/Chairman	104	39*	26	67
9. Other (as specified)	--	25**	25	--
Subtotal for Interactors	728	391	292	75
Overall Total	832	450	344	70.2

Note:

* Estimate based on per cent of districts that listed this position filled on the form "Roster of District Respondents" (Appendix A-3).

** Estimate of the number of substitutions that might be made based on information from "Roster of District Respondent" forms.

in which the superintendents did not respond. However, those superintendents apparently did distribute the survey form to at least some interactors from whom Answer Sheets were received.

Table 7 also reports the number of responses requested (Column 2) from the 104 superintendents and the number received (Column 4). Interactor Classifications 5, 8, and 9 are estimates of the number of existing positions in the survey sample. The explanation of how those estimates were obtained has already been given under the section on procedures (p. 99) in Chapter III. Numbers in Column 3 of Table 7 are projections of potential returns based on information obtained from the superintendents' completed LBQ Answer Sheets (Appendix A-3) which they returned. The number of positions for "Position Classifications" 5, 8, and 9 in Column 1, as reported in Column 3, were estimated on the same basis. Column 4 shows the number of LBQ Answer Sheets received for each position classification. Column 5 shows the per cent of return based on the adjusted potential as reported in Column 3.

The 100% response reported for "Elementary Principal" does not mean that one elementary principal from each of the 59 districts responded. Apparently three district superintendents distributed the LBQ packets only to elementary school principals rather than to the people in the positions specified in the instructions. Thus in actuality eight elementary principals responded from three districts, leaving five elementary principals from other participating districts who did not respond. The only other abnormality was two secondary principal responses from each of five districts.

For the "Other" classification of Table 7, little consistency was found as to the type of alternate positions selected by superintendents.

The rationale for figuring per cent of return in Table 7 (Column 5) on an adjusted potential return (Column 3) is that an interactor cannot be expected to respond to a questionnaire not distributed to him by a superintendent who elected not to participate.

Testing of Hypotheses

This section includes a report of the results obtained from testing the 25 hypotheses stated in this study. A Mann-Whitney U test was used to help determine whether effectiveness scores from congruent style/type relationships were significantly higher than effectiveness scores from style/type relationships that were considered incongruent.

The reader is reminded that all hypotheses were based on congruence between five specific leadership styles theorized to be congruous with five respective types of human behavior. The names of those congruent style/type relationships appear in Table 2, page 87. It should also be remembered that each of the style/type pairings theorized to be congruent is tested according to five different types of perception as illustrated in the "P-series" of statements (p. 5), and also as illustrated in Figure 1, page 7.

Table 8 presents the results of the Mann-Whitney U tests for significance. A One-Tailed analysis of variance was used to obtain the critical value of U. For analytical purposes the table was so constructed as to enable the reader to study the data from style/type congruency patterns or from perceptual patterns, or both.

Table 8

Results of Mann-Whitney U Test of Hypotheses for Significance

(1) Prcptn Class. Comb.	Compatible Leadership Styles and Behavior Types				
	(2) LS1 = Traditional & BT3 = Awakening	(3) LS2 = Prescriptive & BT1 = Pwr.-seeking	(4) LS3 = Pple centered & BT5 = Socio-centric	(5) LS4 = Transactional & BT2 = Aggr. Individual.	(6) LS5 = Supportive & BT4 = Pac. Individual.
P - I*	Ho: 1 N = 3 U = 101.5 Z = 1.839 P = .0330	Ho: 2 N = 1 U = 74.0 Z = .2903 P = .3858	Ho: 3 N = 10 U = 618.0 Z = 1.625 P = .0521	Ho: 4 N = 20 U = 1760.5 Z = .080 P = .4680	Ho: 5 N = 21 U = 1378.0 Z = 1.967 P = .0246
P - II	Ho: 6 N = 13 U = 1091.0 Z = .4373 P = .3310	Ho: 7 N = 11 U = 608.5 Z = -2.1628 P = .0153	Ho: 8 N = 6 U = 416.5 Z = .9699 P = .1661	Ho: 9 N = 8 U = 417.0 Z = 2.0277 P = .0213	Ho: 10 N = 13 U = 869.5 Z = 1.570 P = .0582
P - III	Ho: 11 N = 14 U = 1138.0 Z = .2715 P = .3930	Ho: 12 N = 12 U = 660.5 Z = -2.0384 P = .0208	Ho: 13 N = 13 U = 987.0 Z = .6411 P = .2607	Ho: 14 N = 16 U = 930.0 Z = 2.0888 P = .0184	Ho: 15 N = 15 U = 921.0 Z = 1.7808 P = .0375
P - IV	Ho: 16 N = 7 U = 700.5 Z = .5153 P = .3032	Ho: 17 N = 2 U = 199.0 Z = .2907 P = .3856	Ho: 18 N = 15 U = 1375.5 Z = 1.2220 P = .1108	Ho: 19 N = 14 U = 1511.5 Z = .2797 P = .3899	Ho: 20 N = 18 U = 1798.0 Z = .8224 P = .2054
P - V	Ho: 21 N = 1 U = 108.5 Z = .0388 P = .4845	Ho: 22 N = 0 No Data	Ho: 23 N = 2 U = 183.0 Z = .4275 P = .3345	Ho: 24 N = 2 U = 160.5 Z = .6741 P = .2501	Ho: 25 N = 3 U = 265.0 Z = .6072 P = .2719

Note: * Refers to each of the P-series of hypothesis statements.

In Table 8, the five items listed within each hypothesis block include, in the same sequence as shown here, the following information:

1. "Ho:" the hypothesis number.
2. "N" the number of congruent style/type pairings that constitutes the score group to be compared with a group of scores for all noncongruent relationships.
3. "U" the computed Mann-Whitney U statistic.
4. "Z" the Z standard score of probability.
5. "P" the Z Probability level of significance based on a One-Tailed critical value test of U.

The data reported in Table 8 provides the necessary information for an organized discussion of the test results.

Six hypotheses met established criteria for acceptance. The criteria initially established were (1) an N of at least 8 or more cases of congruent style/type pairs, and (2) a significance level of probability at .05 or below. Five of the 25 hypotheses met those established criteria, they were Hypotheses 3, 5, 9, 14, and 15. The .05 level of significance initially established was advisedly raised to include one additional hypothesis at a significance level of .582. Hypothesis 10, with thirteen congruent pairs of scores in the test group, was that exception. The rationale for that change was based primarily on the grouping distribution between probability statistical levels; more specifically, between those levels that were below and those that were above .0582. For

example, the two probability statistics that were immediately higher than .0582 were .1108 (Ho: 18) and .1661 (Ho: 8). Except for Hypotheses 7 and 12, the probability level of all thirteen of the remaining hypotheses exceeded a level of .20, and the mean level of statistical significance for those thirteen hypotheses was .3160.

Hypotheses 7 and 12 were found to be negatively significant. That is, the congruent ER scores in the test groups for each respective hypothesis was significantly lower than those scores in the noncongruent groups. In other words, the findings were the reverse of what was stated in each of the respective hypotheses.

Hypothesis 1 met the criterion for statistical significance (.0330), but, the small number of only three style/type ER scores in the test group N was insufficient to warrant the placement of any degree of validity in that statistic.

Each of nine hypotheses (numbers 2, 8, 16, 17, 21, 22, 23, 24, and 25), had an N of less than 8 congruent cases. They were therefore rejected on the basis of an insufficient number of cases in the congruent test group. Note the inclusion of Hypothesis 22 for which there were no congruent test scores reported.

Six hypotheses (numbers 4, 11, 13, 18, 19, and 20) had N's of eight or more congruent cases in the test group and had probability levels ranging from .1108 (Ho: 18) to .4680 (Ho: 4); these hypotheses were rejected.

It was noted in Table 8 that for three of the significant hypotheses (Ho: 5, 10, and 15 in Column 6), the Leadership Style was "Supportive" and the Behavior Type was "Pacifistic, Individualistic." For

two other significant hypotheses (Ho: 9 and 14, Column 5) the Leadership Style of the superintendent was "Transactional" and the Behavior Type of the interactor was "Aggressive, Individualistic."

It was further noted that all six of the hypotheses with acceptable statistical significance fell within perception series I, II, and III. In the P-I series (see Figure 1, page 7), the superintendent identified his own leadership style and the interactor identified his own behavior type. In the P-II series the superintendent classified the behavior type of the interactor and the interactor classified the leadership style of the superintendent. In the P-III series the superintendent identified his own leadership style and also the behavior type of the interactor. It was interesting to note that there were no significant hypotheses in the P-IV series, in which the interactor identified the superintendent's leadership style as well as the identification of his own behavior type.

Other Findings

Certain other findings warranted reporting and are, therefore, included in analysis of the data. The first of those findings concerned style/type pairings other than those hypothesized as congruent. Some pairings resulted in higher effectiveness-ratio scores than those that were hypothesized as congruent. Some questions were (1) which were higher, and (2) were there any associations or relationships that could be established between them and the stated hypotheses? Further findings had to do with profiles of "Ideal" and "Real" effectiveness ratings given by superintendents and interactors to superintendents. A third area of

supplemental findings dealt with perceptions of Leadership Styles and Behavior Types. Was there agreement between Behavior Type perceptions of interactors as viewed by superintendents and by interactors themselves? Also, was there agreement between Leadership Styles of superintendents used with their interactors as perceived by interactors and by the superintendents themselves?

Congruent vs Incongruent Score Comparison

When it was learned that only six of the stated hypotheses were accepted as significant, attention was immediately directed toward the effectiveness-ratio scores that were higher than those for style/type pairings that were hypothesized as being congruent. The data were reorganized into a format to permit analysis of all Leadership Style and Behavior Type pairings. Table 9 is a presentation of those data. Due to an insufficient N on any one of the hypotheses numbered 20 through 25, it was judged that no purpose would be served in further reporting data about them. The last two columns in Table 9 serve as a cross compilation of the preceding columns under the heading "Hypothesis Number," and provides computed means for the effectiveness-ratio scores for each of the BT-LS pairs identified in Column 1.

In the first Column of Table 9 "Pairing of BT-LS" has reference to the Behavior Type (BT) descriptors of the same numbers as printed in Part III of the Leadership Behavior Questionnaire (Appendix B-1 and B-3). In the same column, "LS," or Leadership Style, has reference to style descriptors of the same numbers as printed in Part IV of the Leadership Behavior Questionnaire. The boxes encasing five of the

Table 9

Effectiveness-Ratio Score and Mean for Behavior Type and Leadership Style Pairings

(1)	Hypothesis Number								(6)	(7)
Pairing of BT-LS	(2) 1 - 5		(3) 6 - 10		(4) 11 - 15		(5) 16 - 20		Total N 1-20	Mean ERS 1-20
	N	ERS	N	ERS	N	ERS	N	ERS		
1 - 1	-	--	5	.936	4	.931	1	.800	10	.920
[1 - 2]	1	.900	11	.794	12	.801	2	.842	26	.805
1 - 3	2	.781	7	.861	4	.931	3	.821	16	.861
1 - 4	1	.800	3	.930	17	.884	1	.958	22	.890
1 - 5	1	.958	3	.914	2	.858	-	--	6	.903
2 - 1	17	.873	14	.865	9	.896	20	.791	60	.847
2 - 2	15	.808	14	.833	10	.744	39	.822	78	.811
2 - 3	19	.860	17	.887	14	.865	19	.895	69	.877
[2 - 4]	20	.862	8	.942	16	.931	14	.877	58	.896
2 - 5	27	.855	9	.892	15	.884	26	.917	77	.886
[3 - 1]	3	.994	13	.859	14	.872	7	.859	37	.875
3 - 2	4	.848	14	.819	8	.889	6	.748	32	.827
3 - 3	8	.806	12	.976	13	.879	5	.877	38	.894
3 - 4	2	.849	5	.819	12	.862	1	.921	20	.853
3 - 5	4	.862	3	.904	12	.912	4	.925	23	.905
4 - 1	10	.851	8	.763	6	.906	16	.860	40	.845
4 - 2	11	.816	9	.872	5	.926	16	.854	41	.857
4 - 3	13	.877	7	.931	10	.827	16	.914	46	.897
4 - 4	13	.949	4	.946	6	.842	16	.901	39	.913
[4 - 5]	21	.911	13	.922	15	.910	18	.893	67	.910
5 - 1	5	.922	8	.722	4	.845	15	.955	32	.878
5 - 2	8	.811	9	.769	5	.775	6	.861	28	.802
[5 - 3]	10	.905	6	.888	13	.883	15	.919	44	.901
5 - 4	11	.879	11	.877	6	.878	6	.877	34	.878
5 - 5	7	.984	9	.936	18	.867	10	.933	44	.915

Note: * The boxed BT-LS pairs represent those hypotheses that were stated to be congruent.

numbers of "BT-LS" pairings is for the purpose of identifying those type/styles that were hypothesized as congruent according to stated hypotheses.

The four columns under "Hypothesis Number" provide data for each of four "Perception Series" of hypotheses statements. Each column lists the number of cases (N) and the Effectiveness-Ratio Score (ERS) for each BT-LS pairing. The last two columns in the table are summaries. The "Total N 1-20" column shows the total of the number of pairings for each case in the preceding four columns. The "Mean ERS 1-20" column shows a mean effectiveness-ratio score for the preceding four columns. The mean score was computed by multiplying the N factor times the ERS figure for each column (1-5, 6-10, 11-15, 16-20). Each of these columns was added and divided by the N in the Total column.

If the data revealed support for the hypotheses, then the "BT-LS" pairings hypothesized to be congruent should have higher ERS scores in each of the five sets of BT-LS combinations than those perceived to be incongruent. For Behavior Type 1 (Aggressive Power-seeking), the leadership style hypothesized as congruent was Prescriptive, or LS 2. In examining the ER scores for each P-series of scores, the reader must keep in mind the size of the N as well as the comparison of the ERS with other ER scores within that group of five pairings. Take congruent pairing BT-LS " 1-2 " as an example. In the first P-series column, the N was only one. The ERS of .900 is, therefore, not very meaningful, except when combined with the other three P-series columns, as represented in the Mean ERS. It is rather obvious that the Mean ERS of ".805" for an "Aggressive, Power-seeking" behavior type (BT) and a "Prescriptive"

leadership style (LS) is not a favorable combination compared to other effectiveness-ratio scores (ERS) within that group. Each of the individual BT-LS pairings can be examined in the context of each P-series and any given ER score can be compared with any other score or scores in the table.

Table 10 was constructed to focus on the Mean ER scores reported in Table 9. In Table 10, the Mean ER scores are rank ordered from highest to lowest. The number of cases (N) is again presented and the Behavior Types and Leadership Styles are named for each BT-LS pairing. The numbers in boxes under the headings "Mean ERS," "(BT No)," and "(LS No)" represent those pairings hypothesized as congruent. Note that the Mean ERS of .805, used in the example above, ranks 24th in a comparison of 25 possible combinations.

The ERS ranked number 6 has an N of only 6, and the ERS of .920, ranked number 1, has an N of only 10. All other cases appear to have a sufficient N for the Mean ERS to be a reliable score. An appropriate caution would be to examine the amount of variance between the effectiveness-ratio scores (ERS) presented in Table 9, the data from which the Mean ER score was derived. That variance ranged from a low of .002 to a high of .233, as shown in Figure 20 (Appendix D-1). Figure 20 is a scale distribution table of variance scores computed from Table 9. The mean variance was .103 and the median .104. The next nearest variance score below .233 was .170, and then .150. The scores with the smallest amount of variance beginning with the lowest, were .002, .029, .035, .036, .062, .063, and .089. The greatest cluster of scores occurred between variances of .080 to .143. Tables 12 and 13 (Appendixes

Table 10

Rank Order of Behavior Type and Leadership Style
by Effectiveness-Ratio Mean Score

Rank	Mean ERS	N	Behavior Type and Leadership Style (BT No) Name	(LS No) Name
1	.920	10	(1) Aggressive, Power-seeking	(1) Traditional
2	.915	44	(5) Socio-centric	(5) Supportive
3	.913	39	(4) Pacifistic, Individualistic	(4) Transactional
4	.910	67	4 Pacifistic, Individualistic	5 Supportive
5	.905	23	(3) Awakening	(5) Supportive
6	.903	6	(1) Aggressive, Power-seeking	(5) Supportive
7	.901	44	5 Socio-centric	3 People centered
8	.897	46	(4) Pacifistic, Individualistic	(3) People centered
9	.896	58	2 Aggressive, Individualistic	4 Transactional
10	.894	38	(3) Awakening	(3) People centered
11	.890	22	(1) Aggressive, Power-seeking	(4) Transactional
12	.886	77	(2) Aggressive, Individualistic	(5) Supportive
13	.878	34	(5) Socio-centric	(4) Transactional
14	.878	32	(5) Socio-centric	(1) Traditional
15	.877	69	(2) Aggressive, Individualistic	(3) People centered
16	.875	37	3 Awakening	1 Traditional
17	.861	16	(1) Aggressive, Power-seeking	(3) People centered
18	.857	41	(4) Pacifistic, Individualistic	(2) Prescriptive
19	.853	20	(3) Awakening	(4) Transactional
20	.847	60	(2) Aggressive, Individualistic	(1) Traditional
21	.845	40	(4) Pacifistic, Individualistic	(1) Traditional
22	.827	32	(3) Awakening	(2) Prescriptive
23	.811	78	(2) Aggressive, Individualistic	(2) Prescriptive
24	.805	26	1 Aggressive, Power-seeking	2 Prescriptive
25	.802	32	(5) Socio-centric	(1) Traditional

Note: * The boxed ER score Means identify the Means of congruent BT-LS pairs.

D-2 and D-3) provide information derived from Table 9; except for the addition of a column (Column "D") showing the variance for each of the effectiveness-ratio scores that constitute the BT-LS pairings for the columns labeled "B" in each "Perception series." Those variance patterns are provided for the interested reader. They are, however, not germane to this investigation.

Figure 10 provides a perspective of Mean ER scores for each of the four P-series groups of hypotheses, plus a fifth column "Means Ho: 1-20," which is a computed mean for Hypotheses 1 through 20. The information in the last column corresponds to that in Column "2" of Table 10. The table was intended to provide a perspective of where each of the ER scores fell on a scale as compared to scores from other "P" statements of hypotheses. The circles that are filled in represent scores of those styles and types that were hypothesized as congruent.

Ideal and Real Effectiveness Ratings

A report of findings relative to perceptions of "Ideal" and "Real" effectiveness is now ready to be presented. It will be recalled that all subjects were asked to respond to Part II of the Leadership Behavior Questionnaire with respect to 20 criteria of effectiveness. Superintendents were asked to respond concerning their own "image of traits and skills a superintendent should have to be maximally effective in a school district like [that of his own]." Those responses represent the "ideal" one has set for the 20 traits or skills presented. "Real" effectiveness was defined as the superintendent's self-evaluation of his own behavior on each of the 20 criteria. Instruments were designed to obtain the same

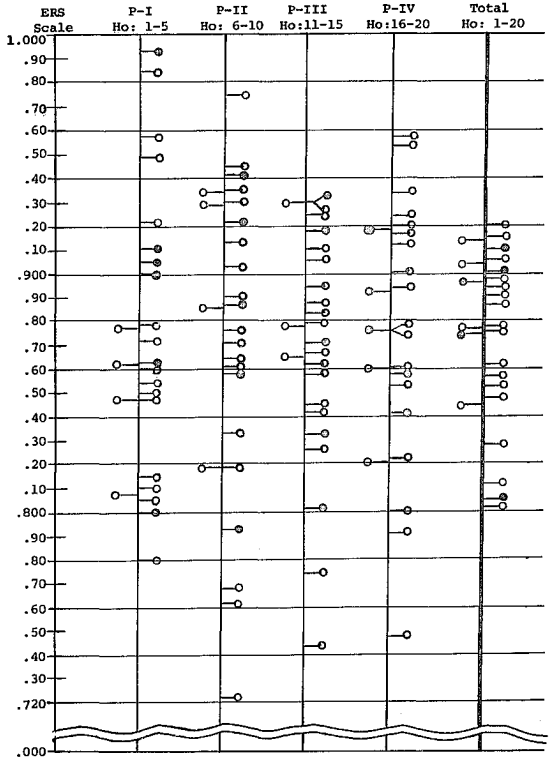

Figure 10

Comparative Scale Distribution of Effectiveness-Ratio Mean Scores for Hypotheses

Note: (—●) Represents a score from a congruent LS-BT pairing.
(—○) Represents a score from a non-congruent LS-BT pairing.

types of information from the interactors regarding the ideal behavior of a superintendent in his community and their perception of the superintendent's "actual behavior" (Real).

Figures 11 through 19 show the mean effectiveness-rating scores given by subjects in each of the responding position classifications identified in Table 7, page 114, and compare the "Real" to the "Ideal" on each item. For example, Figure 11 is a report of the mean scores of "Real" and "Ideal" effectiveness based on an N of 52 superintendents. The information in Figure 11 differs from the data in succeeding tables in this series, in that it shows an evaluation of an ideal superintendent as reported by the actual superintendents in given communities compared to the "Real" as shown by self-evaluation by those superintendents. Figures 12 through 19 report perceptions of the superintendent's expected behavior (Ideal) and the superintendent's (Real) performance obtained from other people who interact with the superintendent.

The scale numbers on the left of all Figures (Numbers 11 through 19) correspond to the evaluation scale printed on Part II of the LBQ "Answer Sheet" (Appendix B-2 and B-4). The superintendent was asked to rate an "Ideal" person, in the position of superintendent in his community, according to the 20 stated criteria. He was then asked to indicate his perception of his own behavior based on those same criteria. For example, the "Ideal" mean score for all responding superintendents to the criterion "Business Operations" was 4.81 on the evaluation scale. Perception about their "Real" performance for the same criterion was 4.25.

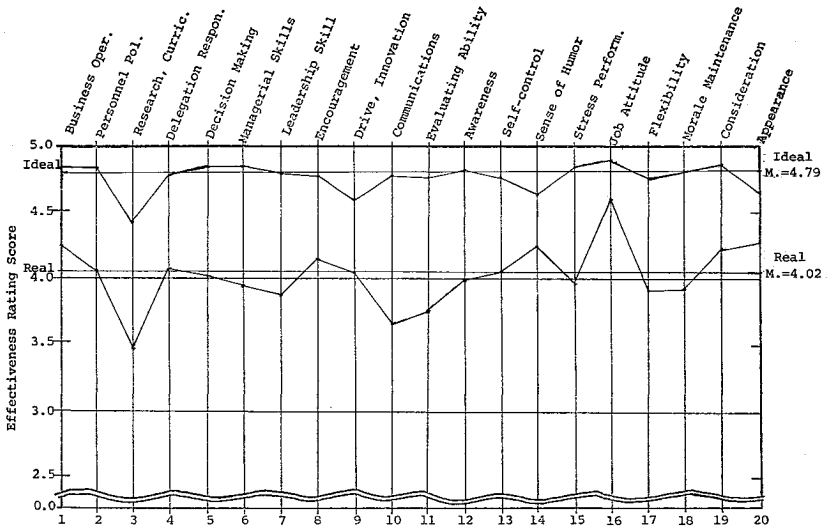

Figure 11

Effectiveness-Rating Scores for Superintendent of Schools as Perceived by Superintendents

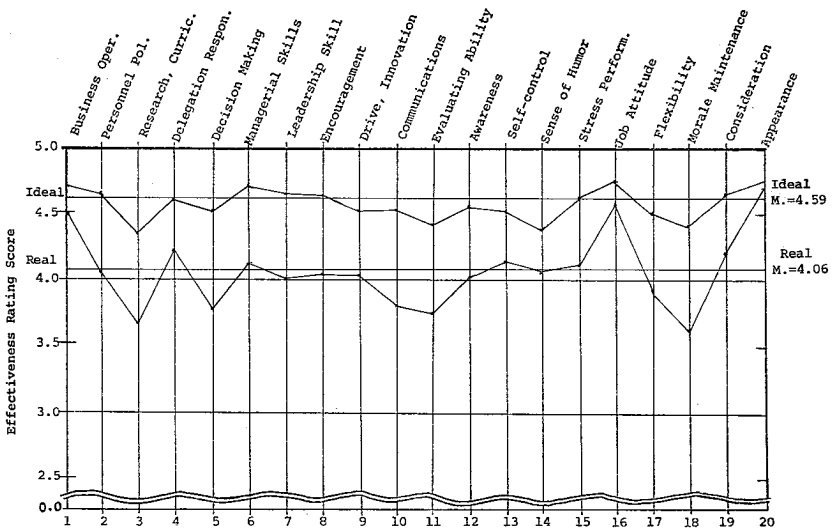

Figure 12

Effectiveness-Rating Scores for Superintendents as Perceived by Secondary School Principals

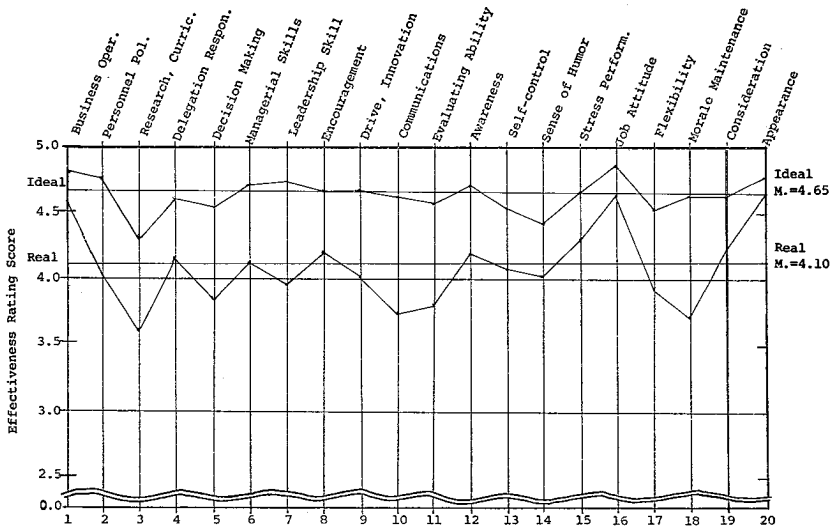

Figure 13

Effectiveness-Rating Scores for Superintendents as Perceived by Elementary School Principals

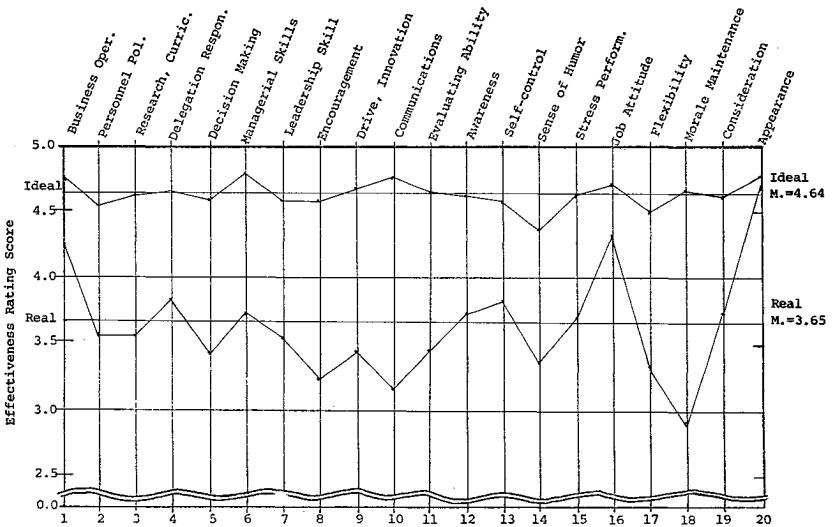

Figure 14

Effectiveness-Rating Scores for Superintendents as Perceived by Presidents, Local Education Association/Teachers Union

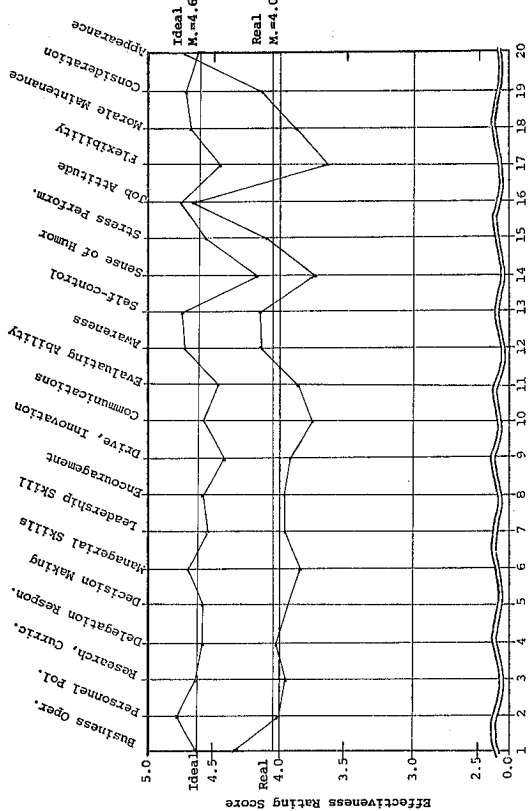

Figure 15

Effectiveness-Rating Scores for Superintendents as Perceived by President/Chairman, School Curriculum Council

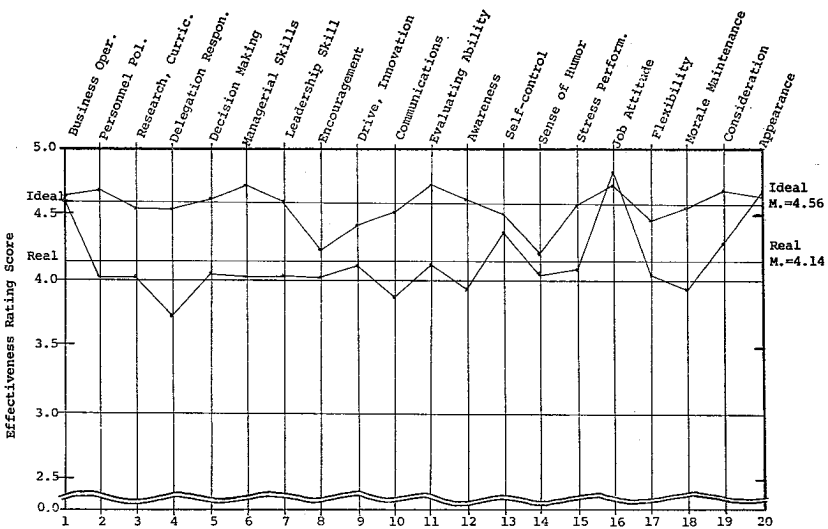

Figure 16

Effectiveness-Rating Scores for Superintendents as Perceived by President, Board of Education

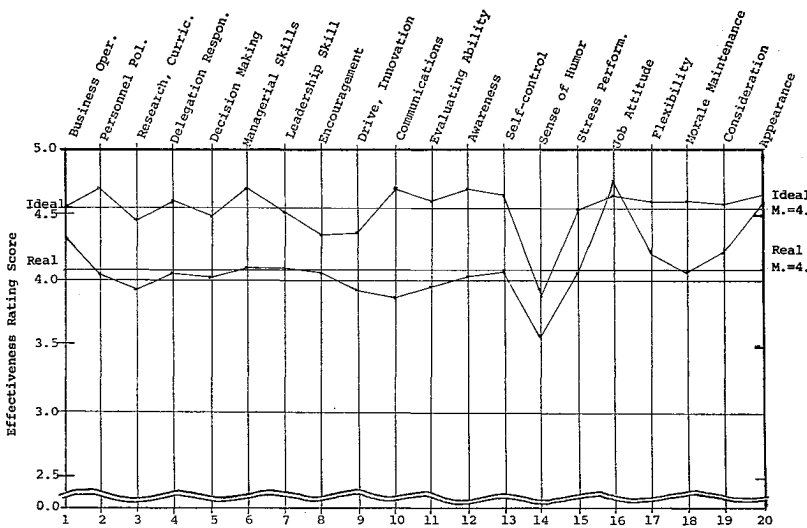

Figure 17

Effectiveness-Rating Scores for Superintendents as Perceived by Vice President/Secretary, Board of Education

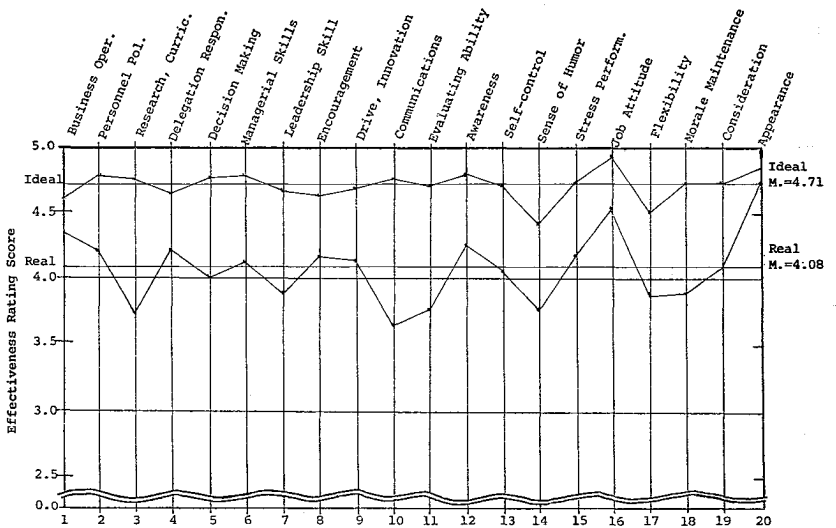

Figure 18

Effectiveness-Rating Scores for Superintendents as Perceived by President/Chairman, Citizens Advisory Council/PTA/PTO

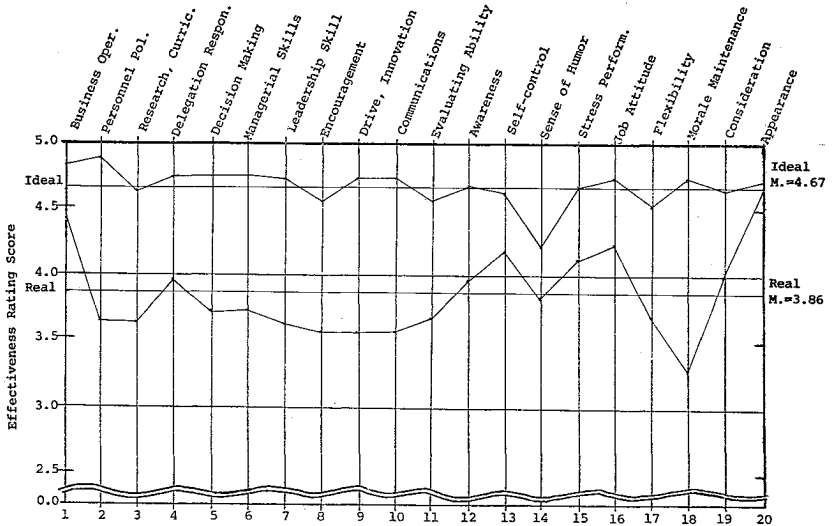

Figure 19

Effectiveness-Rating Scores for Superintendents as Perceived by Others

The mean scores cited in the above example, and for all other examples in Figures 11 through 19, appear in Table 14, Appendix D-4.

It should be remembered that leadership effectiveness was considered in a total context and that the computation of ER scores was based on sums of ratings for all 20 effectiveness criteria. Therefore, in addition to identification of "Real" and "Ideal" ratings for each criterion, a mean score was calculated for the aggregate of all 20 criteria. That mean was determined for perceptions both "Ideal" and "Real," and is represented by two lines drawn across each of the Figures 11 through 19. For instance, the mean score for "Ideal" performance reported by superintendents (Figure 11) was 4.79. The mean score for superintendents' perception of "Real" performance was 4.02. It will be noted that there is a difference of .77 scale points between a mean score representing "Ideal" expectation and a mean score reported as "Real" performance in Figure 11.

The Figures, therefore, provide a dual perspective, one of effectiveness ratings for each individual criterion and the other of an aggregate rating score of all criteria representing total performance.

Each of the Figures 12 through 19 can be analyzed similarly to that which represents the perceptions of superintendents in Figure 11. It was noted that the ideal expectations of performance held by superintendents for themselves were higher than the ideal expectations of any of the groups of interactors for the superintendent.

The mean of ideal expectations which superintendents held for themselves (Figure 11) was higher (4.79) than the ideal expectations held for superintendents by interactors (4.62) in all eight interactor position

classifications (Figures 12 through 19). The number "4.62" is a "mean of means." It was obtained by totaling "Real" performance means of interactor groups (Figures 12 through 19) and dividing by the number of interactor classifications (8). The mean of "Real" performance means of superintendents' evaluation of themselves was 4.02 and the mean of the mean scores of interactor groups who evaluated superintendent real performance was 4.00.

Figure 11 suggests that superintendents generally rated their "Real" performance lower (3.42) in the area of Research and Curriculum than in any other area. It was interesting to note that their perception of "Ideal" expectation for that area was also lower (4.40) than for any of the other criteria. The greatest gap between "Real" and "Ideal" was noted in the area of "Communications," followed closely by the difference in mean scores in the criterion "Evaluating Ability."

Effectiveness rating scores by Secondary School Principals (Figure 12) and by Elementary School Principals (Figure 13) closely paralleled the general profile of superintendents. Looking at the total mean scores for "Ideal" and "Real," the gap between mean scores of principal groups was not as great as for the superintendents' group.

"Real" performance ratings given by Presidents of Local Education Associations or Teachers Unions (Figure 14) were the lowest for any interactor group as reflected by a total mean score of 3.65; a score .99 scale points below the "Ideal" of 4.64. The gap for "Real" performance was particularly evident in the areas of Morale Maintenance, Communications, Encouragement, Flexibility, Sense of Humor, Drive and

Initiative, and Decision Making Ability. The gap was smallest in the areas of Appearance, Job Attitude, and Business Operations.

Presidents or Chairmen of School Curriculum Councils (Figure 15) perceived an "Ideal" expectation for Research and Curriculum higher (4.75) than an "Ideal" reported by Superintendents (4.40). Curriculum Council heads, interestingly, gave a higher "Real" score to Superintendents for the same criterion (3.71) than Superintendents gave themselves (3.42). Otherwise, the profile for this group was not appreciably divergent from that of Superintendents.

Presidents and Vice Presidents (or Secretaries) of Boards of Education (Figures 16 and 17) were very comparable regarding the "Ideal" scores they gave their superintendents, and the gaps between "Real" and "Ideal" score means were similar. The major differences between these two groups were regarding perceptions about Delegation of Authority and Sense of Humor; both were scored lower by Vice Presidents or Secretaries than by Presidents of Boards of Education. Note, also, that Vice Presidents/Secretaries of Boards of Education rated the criterion "Sense of Humor" lower in both "Ideal" expectation (3.57) and "Real" performance (3.94) than did Presidents (R=4.07, I=4.21). That perception was quite different than what was reported by Superintendents (R=4.27, I=4.60).

The profile of scores by Citizens Advisory Council/PTA/PTO heads (Figure 18) was not too dissimilar from that of Superintendents, but perceptions of persons in the "Other" classification (Figure 19) were quite different. People in the "Other" classification rated Superintendents lowest in the areas of Morale Maintenance (3.28), Encouragement (3.56), Drive and Initiative (3.56), Communications (3.56), Leadership

Skills (3.64), Research and Curriculum (3.64), Personnel Policies (3.64), Evaluating Ability (3.68), and Flexibility (3.71). Superintendents were rated highest in Appearance (4.64), and in Business Operations (4.48).

The highest mean performance score was given by Presidents of Boards of Education (4.14). A criterion on which a uniformly low "Real" rating was given by Superintendents and Interactors was that of Communications. The aggregate mean for the "Ideal" expectation score was 4.66; the "Real" performance mean score was 3.65, for a difference of 1.01 scale points. The "Ideal" expectation rating which Superintendents gave themselves in the area of Communication was higher than that given by any of the interactor groups, but the Superintendents' own "Real" performance mean score was lower than "Real" performance mean scores from seven of the eight interactor groups.

The "Real" behavior of superintendents was consistently rated high by all subjects in the areas of Business Operations, Job Attitude and Appearance.

Perceptions: Differences and Similarities

Whether the hypotheses in this study are confirmed or denied hinges largely on the accuracy of the perceptions recorded by superintendents and interactors. To what extent do interactors and superintendents agree about an interactor's Behavior Type and/or about a superintendent's Leadership Style? Table 11 is a summary of data regarding the various perceptions that were reported. Under the "Position Classification" column is a list of the same positions as those printed in Part I of the

Table 11

Analysis of Perceptions as to Behavior Type and Leadership Style

(1) Position Classification	Behavior Type (2) No.	Description	Perception and N (3) Interactors' Perception of Self	(4) Superinten. Perception of Interactors	Leadership Style (5) No.	Description	Perception and N (6) Interactors' Perception of Superinten.	(7) Superinten. Perception of Self
Secondary Principal	1	Aggr Pwr-seek	2	6	1	Traditional	9	8
	2	Aggr Individu	24	16	2	Prescriptive	9	5
	3	Awakening	3	11	3	People-center	13	10
	4	Paci Individu	13	12	4	Transactional	6	10
	5	Socio-centric	9	3	5	Supportive	15	15
Elementary Principal	1	Aggr Pwr-seek	2	2	1	Traditional	9	6
	2	Aggr Individu	23	8	2	Prescriptive	15	5
	3	Awakening	5	11	3	People-center	11	15
	4	Paci Individu	15	9	4	Transactional	11	5
	5	Socio-centric	11	18	5	Supportive	10	18
Local Educ. Assn/Union President	1	Aggr Pwr-seek	1	9	1	Traditional	13	13
	2	Aggr Individu	18	13	2	Prescriptive	14	12
	3	Awakening	4	10	3	People-center	7	12
	4	Paci Individu	9	8	4	Transactional	1	10
	5	Socio-centric	5	10	5	Supportive	2	4
Curriculum Council Pres/Chmn.	1	Aggr Pwr-seek	-	5	1	Traditional	7	3
	2	Aggr Individu	13	6	2	Prescriptive	5	3
	3	Awakening	7	8	3	People-center	3	8
	4	Paci Individu	7	7	4	Transactional	3	12
	5	Socio-centric	10	8	5	Supportive	10	9
Board of Education President	1	Aggr Pwr-seek	1	13	1	Traditional	5	12
	2	Aggr Individu	8	9	2	Prescriptive	6	7
	3	Awakening	1	12	3	People-center	6	16
	4	Paci Individu	14	6	4	Transactional	5	8
	5	Socio-centric	4	10	5	Supportive	6	11

continued

Table 11 (concluded)

(1) Position Classification	Behavior Type (2) No.	Description	Perception and N (3) Interactors' Perception of Self	(4) Superinten. Perception of Interactors	Leadership Style (5) No.	Description	Perception and N (6) Interactors' Perception of Superinten.	(7) Superinten. Perception of Self
Board of Education Vice Pres.	1	Aggr Pwr-seek	1	4	1	Traditional	7	6
	2	Aggr Individu	11	14	2	Prescriptive	10	10
	3	Awakening	4	18	3	People-center	9	9
	4	Paci Individu	9	3	4	Transactional	2	15
	5	Socio-centric	7	11	5	Supportive	5	9
CAC/PTO/PTA Pres/Chmn.	1	Aggr Pwr-seek	-	2	1	Traditional	2	6
	2	Aggr Individu	7	4	2	Prescriptive	7	3
	3	Awakening	2	12	3	People-center	6	11
	4	Paci Individu	10	7	4	Transactional	7	4
	5	Socio-centric	6	8	5	Supportive	3	9
Other	1	Aggr Pwr-seek	-	3	1	Traditional	7	3
	2	Aggr Individu	14	5	2	Prescriptive	4	4
	3	Awakening	3	6	3	People-center	3	1
	4	Paci Individu	5	-	4	Transactional	3	2
	5	Socio-centric	3	2	5	Supportive	8	6

LBQ Answer Sheets (Appendix B-2, 4). The "No." and "Description" columns correspond to the way the Behavior Types and Leadership Styles are listed in the LBQ.

To illustrate how Table 11 is to be interpreted, refer to the position classification "Elementary Principal." There were two interactors who reported themselves as being "Most Like" Behavior Type 1, "Aggressive, Power-seeking." There were likewise two interactors who were reported by superintendent(s) to be of that Behavior Type. If the numbers in the sample were sufficiently large, one might generalize that superintendent and interactor perceptions were similar regarding the classifications of interactors within that behavior type. Look next at Behavior Type 2, "Aggressive, Individualistic," still under "Elementary Principal." The difference between the reported number of classifications under "Behavior Type" (23) in Column 3 and the reported number of classifications in Column 4 (8) would suggest a wide perceptual difference between the number of Interactors who perceive themselves of this behavior type as compared to the number of Interactors placed in this behavior type by superintendents. The mean variance between all scores reported in Columns 3 and 4 under the heading "Behavior Type" was 4.3. There were 22 variance scores higher than that mean and 16 variance scores that were lower. The mean variance scores between all numbers reported in Columns 6 and 7 under the heading "Leadership Style" was 3.8. There were 13 variance scores higher than that mean and 14 scores that were lower.

Based on an observation of score variances it might be logical to deduce that perceptions by superintendents and interactors were

inordinately dissimilar. The perils of making that sweeping generalization are recognized. In order to be completely accurate a careful study would need to be made comparing each superintendent's perception with the perceptions of each of the reporting interactors from his district.

The number of interactors who classified themselves into Behavior Type 1, inclusive of all position classifications, was seven. The number of interactors who were so classified by superintendents was 44. The number of interactors who classified themselves in Behavior Type 2, "Aggressive, Individualistic," was 118. Compare that number with a total of 75 interactors so classified by superintendents. The disparity of numbers, reflecting perception, in Behavior Type 3 (Awakening) is even more pronounced.

Comparative analyses for the various Leadership styles produce similar disparities in perception. There was one noted similarity, and that was with regard to Leadership Style 1, "Traditional." Each of the other four leadership styles reflected a total difference between numbers of at least 20 points.

The returned LBQ forms provided data in addition to those which have been presented here. The purposes of this study, however, have been met and other data may be analyzed and reported at another time.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this Chapter is threefold; namely, to: (1) summarize the research procedures and findings of the study, (2) draw appropriate conclusions from the data, and (3) offer recommendations which this investigator believes might aid future research in the area of educational leadership effectiveness.

Summary

This study dealt with the effectiveness of educational leaders in a work situation. It focused on the use of five leadership styles that were deemed compatible with five different behavioral types of people, taken from the theory proposed by Graves (1966), which was developed in business and industry. This investigator believed that the theory might have application in the field of educational leadership. The objective was to determine whether congruence between perceived leadership styles and perceived behavior types of people resulted in effectiveness scores for public school superintendents that were significantly higher than scores obtained when style/type patterns were perceived as incongruent.

The problem statement asked, in question form, "Are 'Effectiveness' rating scores of superintendents higher when perceptions of 'Leadership Style' and 'Behavior Type' are congruent than when perceptions of those 'style/type' pairings are incongruent?" From that question, 25 hypotheses were formulated. Each hypothesis encompassed five perceptual points of

view and one of five supposedly-congruent leadership style and behavior type sets. The five series of "P" statements had reference to whose perception was being considered in the classifications of leadership style and behavior type. In other words, whose perception of leadership style and behavior type classifications was being used, and according to whose perception would style/type pairings be matched for congruency or incongruency?

The five supposedly-congruent leadership-style behavior-type combinations were:

Leadership Style	Behavior Type
Traditional	Awakening
Prescriptive	Aggressive, Power-seeking
People centered	Socio-centric
Transactional	Aggressive, individualistic
Supportive	Pacifistic, individualistic

Subjects consisted of public school superintendents and heads of school or community-related groups. Those heads were called interactors within the districts served by those superintendents. A representative sample of 104 superintendents and 728 interactors was selected from Southwestern Michigan. The sample was representative according to these three criteria: (1) district enrollments large enough for there to be a high probability that interactor positions designated in the study would exist within the district, (2) sampled districts reflected fairly diverse socio-economic conditions, and (3) district size large

enough to assure high probability of existence of a wide variety of leadership conditions and situations.

The positions held by interactors were: (1) Secondary Principal, (2) Elementary Principal, (3) Education Association, or Union President, (4) Curriculum Council Chairman, (5) Board of Education President, (6) Board of Education Vice President, (7) Citizens Advisory Council/PTO/PTA President, and (8) Other. The latter category was to cover some other school-related position in the event that one of the above specified positions did not exist within the school district.

Design and Procedures

The study was designed to obtain empirical data about three dimensions of leadership: (1) leadership style, (2) behavior type, and (3) effectiveness ratings.

Leadership style and behavior type descriptors coincided with the types of behaviors and leader styles suggested by Graves (1966). A set of 20 criteria were obtained from two separate instruments. Respondents were asked to evaluate their perceptions of a superintendent's effectiveness on each of the criteria, using a five-point Likert Type evaluation scale. The descriptions of leadership styles, behavior types and effectiveness criteria were combined and printed in a survey instrument titled "Leadership Behavior Questionnaire."

A superintendent effectiveness-ratio score was determined by obtaining responses regarding two perceptions for each evaluative criterion: Real and Ideal. The aggregate perception scores of "Real" performance, for all 20 criteria, was divided by a sum of "Ideal"

expectation scores. That quotient provided the effectiveness-ratio scores that determined the congruent or incongruent sets, the means of which were tested for significance.

Copies of the survey instrument and appropriate instructional materials were mailed to the subjects in the survey sample. A follow-up letter was sent to each subject who had failed to respond one month after the date of the initial mailing.

The methodology used for testing the hypotheses was the Mann-Whitney U Test. A One-Tailed U statistic was obtained from a calculated difference between effectiveness "ratio score" means of congruent versus incongruent style/type relationships. All differences were reported as to levels of probability. The accepted level of significance, however, was at least .06, with an N of at least eight for the set of congruent scores.

Findings

The data received were transferred to computer cards and verified. A Mann-Whitney U test was programmed into the computer to obtain the U statistic, the "Z" statistic and the "P" or probability level for determining significance level. The results of the tests showed:

Ho: 1. Significant at the .03 level, however, the N of three congruent cases was insufficient. The hypothesis was therefore rejected.

Ho: 2, 8, 16, 17, 21, 22, 23, 24, 25. Each of these nine hypotheses had an N of less

than eight congruent cases and a probability level higher than .05 and each was, therefore, rejected.

Ho: 7, 12. Each of these hypotheses were negatively significant, that is, test scores that were significantly lower than theorized noncongruent scores.

Ho: 4, 6, 11, 13, 18, 19, 20. Each of these seven hypotheses had a sufficient N, but had a probability level higher than .06, and was therefore, rejected.

Ho: 3, 5, 9, 10, 14, 15. Each of these five hypotheses had an N of eight or more and was significant at the .06 level or lower and each was therefore accepted.

The significant hypotheses, sorted according to Perception classification, were:

Perception (P)	Series Descriptions	Hypothesis
P - I	Superintendent's perceptions of his own Leadership Style and Interactor's perception of his own Behavior Type	3, 5
P - II	Superintendent's perception of Interactor's Behavior Type and Interactor's perception of Superintendent's Leadership Style	9, 10
P - III	Superintendent's perception of his own Leadership Style and Superintendent's perception of Interactor's Behavior Type	14, 15

According to congruent Leadership Style and Behavior Type pairs, the significant hypotheses were:

Leadership Style		Behavior Type	Hypothesis
People centered	and	Socio-centric	3
Transactional	and	Aggressive, Individualistic	9, 14
Supportive	and	Pacifistic, Individualistic	5, 10, 15

Conclusions

The following conclusions are reported from the analysis of data presented in Chapter IV. The sub-headings coincide with those used in the previous chapter for the sake of organizational uniformity.

Survey Response

The number of responses received from superintendents (57%) was slightly above expectation, considering that the nature of the study was evaluative of the superintendent and considering also that survey studies, traditionally, do not receive a return much beyond the 50% mark. The number of responses from interactors (75%) also exceeded expectations. The endorsements obtained from people in responsible positions, whose names were known to the respondents, were believed to have contributed significantly to the credibility of and ultimate response to the study.

It was concluded that responses obtained satisfied the representativeness criteria established. There was representative participation of districts according to varied student-enrollment classifications. The per cent of responses from each of the interactor position classifications was also acceptable.

The number of responses received, however, in some instances did not provide a sufficient N for congruent cases to allow testing of some hypotheses, Based on the data received, a sample size of at least ten times that of this study would have been required to produce a sufficient number of congruent cases to test Hypotheses 21 through 25. This condition was thought to be due primarily to the greatly increased number of possible combinations associated with those hypotheses. According to that "P" series of hypotheses, both superintendents and interactors were to agree on certain leadership styles that were congruent with certain behavior types. Rather than having 25 possible combinations, as with the first four P-series of statements (Hypotheses 1-20), the number of possibilities was increased to 625 (25 X 25) for this group. Obviously, the sample size in this study was inadequate to provide a sufficient N for that number of possibilities.

Tests of Hypotheses

A restatement of the significant hypotheses may help in drawing some conclusions. Some of the extraneous wording is here omitted by grouping the LS-BT pairs into one P statement, as in Hypotheses 3, 5. However, the meaning for each hypothesis remains the same.

Ho: 3, 5. (P-I Series) The Interactor's rating of Superintendent effectiveness will be higher (than noncongruent pairings)if the Interactor's perception of his own Behavior Type is (Ho: 3) "Socio-centric (Ho: 5) "Pacifistic, Individualistic" and the Superintendent's Leadership Style is

(Ho: 3) "People centered."
(Ho: 5) "Supportive."

Ho: 9, 10. (P-II Series) The Interactor's rating of Superintendent effectiveness will be higher than for non-congruent pairings if the Interactor's perception of his own Behavior Type is (Ho: 9) "Aggressive, Individualistic" (Ho: 10) "Pacifistic, Individualistic" and the Superintendent's Leadership Style is (Ho: 9) "Transactional." (Ho: 10) "Supportive."

Ho: 14, 15. (P-III Series) The Interactor's rating of Superintendent effectiveness will be higher than for noncongruent pairings if the Superintendent's perception of his own Leadership Style is (Ho: 14) "Transactional" (Ho: 15) "Supportive" and the Superintendent's perception of the Interactor's Behavior Type is (Ho: 14) "Aggressive, Individualistic." (Ho: 15) "Pacifistic, Individualistic."

One may logically ask the question, "Are P-series I, II, and III more reliable types of perception than P-series IV because there were two hypotheses with significance less than .06 in each of the series P-I, P-II, and P-III, and none in series P-IV?" The lack of a sufficient N in all five hypotheses of P-series V precludes judgment one way or the other for that Perception Series. There is also reason to conclude that there is a greater degree of reliability of Behavior Type and Leadership Style classifications made by Superintendents than by Interactors. That generalization is based on the

finding of two of five hypotheses being significant in the P-III Series where superintendent judgments were concerned and the lack of finding any significant hypotheses in the P-IV Series where interactor judgments were used for matching congruent style/type pairs.

In examining the data from the perspective of BT-LS congruent pairings, it was noted that in each of three of the five groups (Columns 2 and 3, Table 8, Page 118) listed under BT 1--LS 3 and BT 2--LS 1 there was an insufficient N for reliable testing for significance.

Based on Graves' (1966, 1968) theorizing about hierarchical progression from one level to another, it was interesting to note that five of the six significant hypotheses ranked in the top two levels of Graves' hierarchical order. The extent to which that may be meaningful is unknown, but it was observed fact.

Conclusions related to the tests made of hypotheses were summarized:

1. The ER scores of superintendents varied according to various leadership style and behavior type combinations. The six congruent style/type relationships found to be significant could well be considered by school superintendents for greater leadership effectiveness. The two hypothesized style/type pairings which resulted in ER scores significantly lower than scores of noncongruent pairs could well be avoided.

2. The sample was insufficient to test all 25 hypotheses, particularly Hypotheses 21 through 25.

3. The six hypotheses found to be significant can be sorted according to three perceptual viewpoints and three BT-LS categories.

4. The perceptions of superintendents related to more hypotheses that were significant than did the perceptions of interactors.

Other

Some conclusions relate to findings in three areas considered supplemental to the testing of the stated hypotheses. Those findings were relative to non-congruent ER scores that were higher than hypothesized congruent scores, Ideal/Real effectiveness ratings, and differences and similarities of perceptions.

Congruent and incongruent score comparisons. It was evident that there were BT-LS pairings resulting in higher ER scores than did the BT-LS pairings hypothesized as congruent. None of the non-congruent BT-LS pairs of scores was tested for significance. From Table 9, however, it was noted that in the P-I series the ER Mean scores for each of the four non-congruent combinations was higher than the one theorized as congruent. In the P-III series, two ER Mean scores for non-congruent pairs were higher than the score means for the congruent pairs. In each of the P-IV and P-V series, one ER Mean score for a non-congruent pair was higher than the score Mean for the pair hypothesized as congruent.

It was logical to conclude that there may be other BT-LS combinations that are even more compatible, and operationally more effective, than those hypothesized as congruent.

Ideal and real effectiveness ratings. It was the conclusion of this investigator that the Effectiveness Ratio Score as derived in this study was accurate and reliable for the purpose intended. From the "Real" performance and "Ideal" expectation profiles that were developed (Figures 11-19) from collective responses, it can be concluded that:

1. Superintendents set higher "Ideal" expectations for themselves than did any of their Interactors.

2. The mean score on "Real" performance obtained from Superintendents in self-evaluation was not appreciably different from the mean expectation of Interactors as a collective group.

3. Presidents of Boards of Education gave Superintendents the highest mean score for "Real" performance, and Presidents of Local Education Associations/Unions gave them the lowest mean profile score.

4. Superintendents were rated generally high by themselves and by Interactors on each of three criteria: Business Operations, Job Attitude, and Appearance.

5. Superintendents also were rated generally low on each of three criteria: Communications, Research and Curriculum Development, and Morale Maintenance Ability.

6. The greatest gap between Ideal expectation and Real performance in nearly all profiles (Figures 11-19) was in the area of Communications. The gap in

Communications was followed closely by a gap in Morale Maintenance Ability.

Perceptions: differences and similarities. From the data recorded in Table 11 (pages 141 and 142), it appears that there was wide disparity between the superintendents' perception of both leadership style and behavior type in comparison with perceptions recorded by interactors. This tentative conclusion was based on a visual inspection of the data in the table and not on the basis of careful inspection of individual returns from each district. If a careful analysis were made and a basis found for this conclusion, it would then warrant questioning the validity of the BT-LS parts of the instrument used. That is, were the behavior type and leadership style descriptors adequate to obtain an accurate perception of a leader's style and an interactor's behavior type?

Recommendations

From this study, several recommendations seem appropriate for persons who may wish to pursue further research in this area of educational leadership.

1. It is recommended that refinements be made in the instrument used. Those refinements should include:

   a. Revision of the behavior-type and leadership style descriptors to make them more distinctive and more behaviorally oriented. They need to be thoroughly tested for reliability of type and style identification. A

study in this area alone might be an important contribution to research.

b. Expansion of the Likert-type evaluative scale from five to seven evaluation marks. That expansion would provide a wider range of Effectiveness-Ratio Scores, which might improve the fidelity of results.

c. Consideration should be given to an interview schedule coupled with an instrument survey. The outline for the interview should be heavily oriented toward the accurate identification of Behavior Types and Leadership Styles.

2. The "Effectiveness-Ratio Score" method developed for evaluating the "Real" work of a superintendent against a standard of "Ideal expectation for him was uniformly excellent and the use of that methodology should be continued.

3. In order to test Graves' theory more accurately, the methodology could be altered and instrumentation adapted to use a sample of leaders and interactors who are stereotyped according to Graves' various leadership styles and behavior types. The methodology for such a procedure would necessitate screening to identify those people who most nearly fit the behavioral

descriptors and leadership styles of the theory. Effectiveness scores could then be tested with increased probability of accuracy about BT-LS perceptual identification.

4. If this study were to be repeated, the sample size should be increased significantly to provide the numbers needed for meaningful tests of significance for all hypotheses. The most meaningful statistics from the present study could have been in regard to Hypotheses 21 through 25, because in these hypotheses greater uniformity of agreement was necessary. However, as indicated, the sample size would need to be appreciably increased.

This investigator is of the opinion that the study has been well worth the time and effort expended. Much has been learned about procedure and methodology, and some new information has been acquired. Leadership behavior in education has been difficult to examine, and it is hoped that this study may help others in further examination.

REFERENCES

Allport, G. W. Personality: A psychological interpretation. New York. Holt, 1937. See also Encyclopedia of educational research. Toronto, Ontario: The Macmillan Co., 1969.

Anderson, D. R. Opinion and attitude development. An unpublished seminar research report. Western Michigan University, Kalamazoo, Michigan, April, 1967.

Barnard, C. I. The functions of the executive. Cambridge: Harvard University Press, 1938, copyright renewed 1966.

Bartky, J. A. Administration as educational leadership. Stanford: University Press, 1956.

Bellows, R. T., Gilson, T. Q., & Odiorne, G. S. Executive skills, their dynamics and development. Englewood Cliffs, N. J.: Prentice Hall, 1962.

Benne, K. D., & Sheats, P. Functional roles of group members. Journal of Social Issues, 1948, 4 (2), 41-49.

Bennis, W. G., & Slater, P. E. New patterns of leadership for adaptive organizations. In the temporary society. New York: Harper & Row, 1968, pp. 97-123.

Bevan, W., Albert, R. S., Loiseaux, P. R., Mayfield, P. N., & Wright, G. Jury behavior as a function of the prestige of the foreman and the nature of his leadership. Journal of Public Law, 1958, 7, 419-449.

Blake, R. R., & Mouton, J. S. The managerial grid. Houston: Gulf, 1964.

Boles, H. W. Leaders, leading and leadership: A theory. Unpublished manuscript, Western Michigan University, Kalamazoo, Michigan, 1971.

Bryan, R. C. Pupil rating of secondary school teachers. Bureau of Publications, Teachers College, Columbia University, New York City, 1937.

Bryan, R. C. Student reactions and merit salary schedules. Western Michigan University Faculty Contributions. Kalamazoo, Mich. Series IV, No. 2, July, 1958.

Bryan, R. C. Reactions to teachers by students, parents and administrators. USOE Cooperative Research Project No. 668, 1963.

Campbell, R., & Gregg, R. (Eds.) Administrative behavior in education. New York: Harper & Row, 1957.

Davis, K. Human relations at work. (3d ed.) New York: McGraw-Hill, 1967.

Drucker, P. F. The effective executive. New York: Harper & Row, Pub., 1967.

Fiedler, F. E. A theory of leadership effectiveness. New York: McGraw-Hill, 1967.

Fiedler, F. E. Style or circumstance: The leadership enigma. Psychology Today. March, 1969, pp. 38-43.

Fiedler, F. E. Reaction to Graen's article, Contingency model of leadership effectiveness. Some experimental results. Journal of Applied Psychology, 1971, 55(3), 196-201.

Flinders, N. J. Leadership and human relations. Salt Lake City: Deseret Book Co., 1969.

Gibb, C. A. Leadership. Handbook of social psychology. Edited by Gardner Lindzey. Cambridge, Mass.: Addison Wesley Pub. Co., 1954.

Gibb, C. A. (Ed.) Leadership. Middlesex, Eng.: Penguin Books, Inc., 1969.

Graen, G., Orris, J. B., & Alvares, K. M. Contingency model of leadership effectiveness. Some experimental results. Journal of Applied Psychology, 1971, 55(3), 196-201.

Graff, O. B., Street, C. M., Kilbrough, R. B., & Dykes, A. R. Philosophic theory and practice in educational administration. Belmont: Wadsworth Publishing Co., Inc., 1966.

Graves, C. E. Deterioration of work standards. Harvard business review. Sept.-Oct. 1966, pp. 117-128.

Graves, C. E. Unpublished manuscript notes, 1968.

Griffiths, D. E. Human relations in school administration. New York: Appleton-Century-Crofts, Inc., 1958.

Griffiths, D. E. Administrative theory. New York: Appleton-Century-Crofts, Inc., 1959.

Guilford, J. P. Traits of creativity. Cited by H. H. Anderson (Ed.), Creativity and its cultivation. New York: Harper & Row, 1959, pp. 142-161.

Halpin, A. W. Theory and research in administration. New York: Macmillan, 1966.

Hare, A. P. Handbook of small group research. New York: The Free Press, 1966.

Harris, B. M. Supervisory behavior in education. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963.

Harvey, O. J., Hunt, D. E., & Schroder, H. M. Conceptual systems and personality organization. New York: John Wiley, 1961.

Hemphill, J. K. Patterns of leadership behavior associated with administrative reputation in the department of a college. Journal of Educational Psychology, XLVI (November, 1955), 385-401.

Hemphill, J. K., & Coons, A. E. Development of the leader behavior description questionnaire. Cited by R. M. Stogdill and A. E. Coons, (Eds.), Leader behavior: Its description and measurement. Columbus, O.: The Ohio State University Press, 1957.

Herzberg, F., Mausner, B., & Snyderman, B. B. The motivation to work. (2nd ed.) (First pub. in 1959.) New York: John Wiley & Sons, Inc., 1967.

Hill, W. The validation and extension of Fiedler's theory of leadership effectiveness. Academy of Management Journal, 1969, 12(1), 33-47.

Hull, C. L. Essentials of behavior. New Haven: Yale University Press, 1951.

Hull, C. L. A behavior system. New Haven: Yale University Press, 1958.

James, W. The principles of psychology. New York: Holt, Rinehart & Winston, Inc., 1918, Vol. II. (First published in 1890.)

Katz, R. L. Skills of an effective administrator. Harvard Business Review, 1955, 33(2), 33-42.

Lawrence, P. R., & Lorsch, J. W. Organization and environment. Homewood, Illinois: R. D. Irwin, Inc., 1969.

Lewin, K. The conceptual redpresentation and the measurement of psychological forces. Contributions of psychological theory. Durham, N. C.: Duke University Press, 1938, 1(4). Cited by V. H. Vroom in Work and motivation. New York: John Wiley & Sons, Inc., 1964.

Lewin, K., Lippitt, R., & White, R. K. Patterns of aggressive behavior in experimentally created "social climates." Journal of Social Psychology, 1939, (10), 271-299.

Lewin, K., Lippitt, R., & White, R. An experimental study of leadership and group life. Cited by T. M. Newcombe and E. L. Hartley (Eds.) Readings in social psychology. New York: Holt, 1947.

Likert, R. The human organization. New York: McGraw-Hill, 1967.

Lipham, J. M. Leadership and administration. In national society for the study of education. Behavioral science and educational administration. 63rd yearbook. Chicago: University of Chicago Press. 1964. Part III, pp. 119-141.

Litchfield, E. H. Notes on a general theory of administration. Administrative Science Quarterly, 1956, 1(1), 3-29.

Livingston, J. S. Myth of the well-educated manager. Harvard Business Review, 1971, 49(1), 79-89.

Mager, R. F. Preparing instructional objectives. Preparing objectives for programmed instruction. Belmont, Calif.: Fearon Pub., 1962.

Maier, N. R. F. Psychology in industry. (2nd ed.) Boston: Houghton-Mifflin, 1955.

Maslow, A. H. A theory of human motivation. Psychological Review, 1943, 50, 370-96.

Maslow, A. H. Motivation and personality. New York: Harper & Row, 1954.

Maslow, A. H. Religions, values, and peak-experiences. Columbus, O.: Ohio State University Press, 1964.

McClelland, D. C. Personality. New York: Sloane, 1967.

McGregor, D. The human side of enterprise. New York: McGraw-Hill, 1960.

Mockler, R. J. Situational theory of management. Harvard Business Review, 1971, 49(3), 146-155.

Morphet, E. L., Johns, R. L., & Reller, T. L. Educational organization and administration. (2nd ed.) Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1967.

Morris, W. The American heritage dictionary of the English language. (Ed.) Boston: American Heritage Pub. Co., Inc., and Houghton Mifflin Co., 1969.

Murphy, G. Personality: A biosocial approach to origins and structure. New York: Harper, 1947.

Murray, H. A. Explorations in personality. New York: Oxford, 1938.

Myers, R. B. The development and implications of a conception for leadership education. Unpublished doctoral dissertation, University of Florida, 1954. Cited by E. L. Morphet, R. L. Johns and T. L. Reller, Educational organization and administration. (2nd ed.) Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1967, p. 125.

Owens, R. G. Organizational behavior in schools. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1970.

Parsons, T., & Shils, E. A. Toward a general theory of action. New York: Harper Torchbook, 1962. Originally published in 1951.

Raths, L. E., Harmin, M., & Simon, S. B. Values and teaching. Columbus, O.: Charles E. Merrill Publishing Co., 1966.

Reddin, W. J. The 3D management style grid. Training and Development Journal, 1967, 21(4), 8-17.

Reddin, W. J. Managerial effectiveness. New York: McGraw-Hill, 1970.

Riesman, D. The lonely crowd. Copyright 1961. Yale University Press, 1964.

Rosenbaum, L. L., & Rosenbaum, W. B. Morale and productivity consequences of group leadership style, stress and type of task. Journal of Applied Psychology, 1971, 55(4), 343-8.

Rosenberg, M. J., Hovland, C. I., McGuire, W. J., Abelson, R. P., & Brehm, J. W. Attitude organization and change. New Haven: Yale University Press, 1960.

Schutz, W. C. Procedures for identifying persons with potential for public school administrative positions. Berkeley: University of California, 1961.

Schutz, W. C. Leaders of schools. Procedures for identifying persons with potential for public school administrative positions. (E. L. Morphet, Principal Investigator and W. C. Schutz, Research Director) Berkeley: University of California, 1966. (A cooperative research program of the Office of Education, U. S. Department of Health, Education and Welfare.)

Shostrom, E. L. An inventory for the measurement of self-actualization. Educational and Psychological Measurement, 1964, 24(2), 207-18.

Stacey, C. L., & DeMartino, M. F. Understanding human motivation. Cleveland, O.: The World Publishing Company, 1965.

Stein, M. I. Ecology of typology. Paper presented at the Association of American Medical Colleges Conference on personality measurement, DesPlaines, Ill., June 17-18, 1971. (Dr. Stein is Professor of Psychology at New York University.)

Stogdill, R. M. Personal factors associated with leadership: A survey of the literature. Journal of Pyschology, 1948, 25, 35-71. See also R. M. Stogdill and C. L. Shartle, Methods for determining patterns of leadership in relation to organization structure and objectives. Journal of Applied Psychology, 1948, 32, 286-291, and Methods in the study of administrative leadership. Research Monograph No. 80, Bureau of Business Research. Ohio State University, 1955.

Stout, R., & Briner, C. Leadership. In R. L. Ebel (Ed.), Encyclopedia of educational research. (4th ed.) Toronto, Ontario: The Macmillan Co., 1969, pp. 699-706.

Taft, R. The ability to judge people. Psychological Bulletin, 1955, 52, 1-21.

Tannenbaum, R., Weschler, I. R., & Massarik, F. Leadership and organization: A behavioral science approach. New York: McGraw-Hill, 1961.

Taylor, E. K. The unsolved riddle of executive success. Personnel, 1960, 37(2), 8-17.

Thorndike, E. L. Animal intelligence, experimental studies. New York: McMillan, 1965 (orig. 1911).

Thurstone, L. L. Primary mental abilities. University of Chicago Press, 1938. In R. L. Ebel (Ed.), Encyclopedia of educational research. (4th ed.) Toronto, Ontario: The Macmillan Co., 1969, p. 645.

Tolman, E. C. Purposive behavior in animals and men. New York: Appleton-Century-Croft, 1967.

Tyler, L. E. Individual differences. Encyclopedia of educational research. Toronto, Ontario: The Macmillan Co., 1969, pp. 639-644.

Vitales, M. S. Motivation and morale in industry. New York: Norton, 1953.

Vroom, V. H. Work and motivation. New York: John Wiley & Sons, Inc., 1964.

Weber, M. The three types of legitimate rule. In Amitai Etzioni (Ed.), Complex organizations: A sociological reader. New York: Holt, Rinehart, Winston, 1961, pp. 4-14. (First published in the Preussische Jahrbucher, 1922.) See The theory of social and economic organization. (Translated by A. M. Henderson & T. Parsons.) Glencoe, Ill.: Free Press, Macmillan Co., 1964, and also Reinhard Bendix article, Max Weber. International encyclopedia of the social science. New York: Macmillan Co., 1968, Vol. 16, pp. 493-502.

Webster, G. M. Co. Webster's new collegiate dictionary. Springfield, Mass.: G. & C. Merriam Co., 1973.

Whyte, W. F. Organizational behavior: Theory and application. Homewood, Ill.: R. D. Irwin, Inc., 1969, p. 62.

Williams, R. J. Biochemical individuality. New York: John Wiley, 1956.

Ziller, R. C. Four techniques of group decision making under uncertainty. Journal of Applied Psychology, 1947, 41, 384-88.

APPENDIX A

WESTERN MICHIGAN UNIVERSITY
EDUCATOR FEEDBACK CENTER (616) 383-6056 12 BIGELOW HALL KALAMAZOO, MICHIGAN 49001

March 22, 1972

(S A M P L E)

Superintendent Vergil L. Leader
Southwestern Michigan Public Schools
3824 Busy Street
Metropolis, Michigan

Dear Superintendent Leader:

This letter and the enclosed material are relative to a current study of educational leadership in which we ask your participation and support. In return, we offer you the benefit of what we learn. We believe the results of the study will be of interest and of importance to you as an educational leader.

The study identifies leadership styles of the superintendent and behavior types of selected people who have a high degree of interaction with the superintendent. Emphasis is on the relationship between behavior type and leadership style "congruence" and "effectiveness," not effectiveness per se. It attempts to discover which styles are most effective with people in each of five behavioral types. It obtains perceptions of leader effectiveness. Effectiveness scores of compatible "style-type" combinations will be compared with combinations considered incompatible.

The study is conducted through the auspices of the undersigned, and with the endorsements named on the attached "Endorsement Memo."

In order to conduct the study, we need your participation, plus your help in obtaining other respondents from your district listed on the attached "Roster of District Respondents" sheet. Would you please complete this sheet, as per directions, together with your Questionnaire Answer Sheet, and mail them immediately? The purpose for having respondent names, addresses and telephone numbers is for questionnaire return follow-up. Will you please distribute the "Respondent" letters and questionnaires to each person listed on the Roster of Respondents? Your encouragement for them to cooperate, complete the questionnaire and return it immediately will be appreciated.

Please be assured of anonymity in the use of your answers or those from any of the respondents from your district. Individual district findings will not be reported due to the potentially sensitive nature of the study. However, the final results will be made available, through you, to interested participants in your district.

We ask you to respond to the attached questionnaire honestly; your perception of the questions is important. There are no right or wrong answers. The best answers are those you give about yourself and about your perception of each respondent. There is no idle curiosity, desire or intent to trace back who said what. When you have completed the "Roster of Respondents" and the Answer Sheet, seal them in the enclosed stamped envelope and drop them in the mail. Would you please do it now? Your answer sheet will be checked in, the data incorporated with that of other districts, and then the source of the data will lose its identity.

We thank you for your cooperation and assistance in a research study that we believe could be ultimately beneficial to educational leaders and leadership everywhere. If you have any questions or concerns please do not hesitate to call.

Sincerely,

Doyle R. Anderson
Principal Investigator
Phone: (616) 429 7654

Dr. Harold W. Boles, Professor, Department of Educational Leadership, and Director of the Study

Dr. William C. Coats, Head, Department of Educational Leadership, and Director of the Educator Feedback Center

DRA
Enclosures:

P. S. Your immediate distribution of materials to respondents is greatly appreciated.

ENDORSEMENT MEMO

To: School Board Members
Public School Superintendents

Date: March 22, 1972

Subject: Educational Leadership Research Study

A research study of educational leadership is currently being conducted under the direction of Dr. Harold W. Boles, Professor, Department of Educational Leadership at Western Michigan University, and through WMU's Educator Feedback Center, Dr. William C. Coats, Director.

Mr. Doyle R. Anderson, the principal investigator, has reviewed plans for this study with us. We provide our endorsement for it in the belief that it has a potential for revealing new and useful information in the continuing search for more effective educational leadership. The leadership principles suggested in the study may also apply to teaching and to many other areas related to education. We encourage your cooperation and participation.

Mr. Anderson's letter and questionnaire explain the study in further detail.

Norman P. Weinheimer

Dr. Norman P. Weinheimer, Executive Secretary, Michigan School Boards Association

Austin F. Bates

Dr. Austin F. Bates, Executive Secretary, Michigan Association of School Administrators

ROSTER OF DISTRICT RESPONDENTS

District_____

SUPERINTENDENT: Please fill in Names, Addresses and Telephone numbers on designated Respondents in your District and return this list with your Answer Sheet. Thank you.

1. SUPERINTENDENT OF SCHOOLS	Name_____	
	Address_____	City_____
	Zip Code_____	Phone_____
2. SECONDARY PRINCIPAL (Randomly selected by the Superintendent)	Name_____	
	Address_____	City_____
	Zip Code_____	Phone_____
3. ELEMENTARY PRINCIPAL (Randomly selected by the Superintendent)	Name_____	
	Address_____	City_____
	Zip Code_____	Phone_____
4. PRESIDENT, LOCAL EDUCATION ASSOC/ TEACHERS UNION	Name_____	
	Address_____	City_____
	Zip Code_____	Phone_____
5. PRESIDENT/CHAIRMAN SCHOOL CURRICULUM COUNCIL(Where none exist, substitute in No. 9 below)	Name_____	
	Address_____	City_____
	Zip Code_____	Phone_____
6. PRESIDENT, BOARD OF EDUCATION	Name_____	
	Address_____	City_____
	Zip Code_____	Phone_____
7. VICE PRESIDENT, BOARD OF EDUCATION	Name_____	
	Address_____	City_____
	Zip Code_____	Phone_____
8. PRES/CHMN, CITIZEN'S ADVISORY COUNCIL/PTA/ PTO(If a choice, select one with the most interaction with Supt.	Name_____	
	Address_____	City_____
	Zip Code_____	Phone_____
9. OTHER (Complete only when one of the above does not apply in your District. Select head of org. with greatest Supt. interaction)	Name_____	Specify Position_____
	Address_____	City_____
	Zip Code_____	Phone_____

MAIL THIS ROSTER & THE ANSWER SHEET TO: EDUCATOR FEEDBACK CENTER
% Doyle R. Anderson,
12 Bigelow Hall
Kalamazoo, Michigan 49001

Form: RDR

WESTERN MICHIGAN UNIVERSITY

EDUCATOR FEEDBACK CENTER (616) 383-6056

12 BIGELOW HALL
KALAMAZOO, MICHIGAN 49001

March 22, 1972

Dear Respondent:

This letter, and the enclosed material, regard a study which is, we believe, of importance to you as one who is interested and involved in education. We ask your participation, and in return offer you the benefit of what we learn.

This study is conducted through the auspices of the undersigned, and with the full endorsement of those named on the attached "Endorsement Memo." It identifies leadership styles of the superintendent and behavior types of people who have a high degree of interaction with the superintendent. You have been identified by the superintendent as one of those people. The study relates leadership styles and behavior types to see how that relationship affects perceptions of leadership effectiveness in education. The emphasis is on the relationship between behavior level and leadership style "congruence" and "effectiveness," not on effectiveness per se.

We ask for your response to the attached questionnaire. Please respond honestly; your perception of the questions is important. There are no right or wrong answers. The best answers are those you give about yourself and about your perception of the superintendent. There is no idle curiosity, desire or intent to trace back who said what. When you have completed the Answer Sheet, seal it in the enclosed stamped envelope and drop it in the mail. Your answer sheet will be checked in, the data incorporated with that of other districts, and then the source of the data will lose its identity.

Please be assured of anonymity in the use of your answers. Individual district findings will not be reported due to the potentially sensitive nature of the study. However, the final results will be made available to each interested participating district through the superintendent.

We thank you for your cooperation and assistance in a research study that we believe could be ultimately beneficial to educational leaders and leadership everywhere. If you have any questions or concerns, please do not hesitate to call.

Sincerely,

Doyle R. Anderson, Principal
Investigator, Phone: (616) 429 7654

Dr. Harold W. Boles, Professor, Dept. of Educational Leadership, and Director of the Study

Dr. William C. Coats, Head, Dept. of Educational Leadership, and Director of the Educator Feedback Center

DRA
Enclosures:

P. S. We ask that you take a few minutes now to complete the Answer Sheet and mail it immediately. Thank you.

APPENDIX B

Page

LEADERSHIP BEHAVIOR QUESTIONNAIRE

Superintendent's Form

THIS QUESTIONNAIRE REQUESTS INFORMATION ABOUT:

- The Name of your School District
- Your perception of your own "REAL" and "IDEAL" Leadership Effectiveness
- Your perception about Behavior Types of those with whom you interact
- Your perception of your own Leadership Style with designated District Interactors.

PLEASE:

1. Complete all parts of the Questionnaire
2. Mark all answers on the enclosed Answer Sheet
3. Promptly return the completed Answer Sheet (only) in the return envelope provided.

DIRECTIONS

PART I: DISTRICT NAME AND POSITION IDENTIFICATION

Ques. 1-3: Write in the name of your school district on the line provided on your Answer Sheet.

Ques. 4: Your position as Superintendent will be coded automatically when you complete and return the "Superintendent's Form" Answer Sheet.

PART II: REAL--IDEAL LEADER EFFECTIVENESS RATING SCALE

Ques. 5-44: For each question provide two answers on the Answer Sheet--REAL and IDEAL.

REAL means a "self-evaluation" of your own behavior for each question.

IDEAL means your image of traits and skills a superintendent should have to be maximally effective in a school district like yours.

"R" and "I" behind each question number in the Questionnaire refers to REAL and IDEAL perceptions. These correspond to (Real) and (Ideal) designations after each question number on the Answer Sheet.

5 R BUSINESS OPERATIONS: (demonstrates a knowledge and understanding of school
6 I finance, law and business operations.)

7 R PERSONNEL POLICIES: (demonstrates a knowledge of sound personnel policies
8 I and translates that knowledge into practice.)

9 R RESEARCH & CURRICULUM: (demonstrates a knowledge of research and curricular
10 I needs of children.)

11 R ABILITY TO DELEGATE RESPONSIBILITY: (assigns tasks to personnel capable of
12 I carrying them out.)

13 R DECISION-MAKING ABILITY: (issues constructive, appropriate and timely
14 I decisions.)

15 R MANAGERIAL SKILLS: (coordinates the efforts of those responsible to him
16 I so that the organization operates efficiently.)

17 R LEADERSHIP SKILLS: (exhibits those qualities and skills which facilitate
18 I the attainment of goals that are mutually acceptable.)

19 R ENCOURAGEMENT: (encourages the raising of questions and the expres-
20 I sion of opinion.)

21 R DRIVE & INNOVATIVENESS: (stimulates initiative and willingness to accomplish
22 I meaningful goals and try new approaches and methods.)

23 R COMMUNICATION: (defines and explains expectations of staff members,
24 I communicates articulately and expresses ideas smoothly.)

25 R EVALUATING ABILITY: (evaluates programs, practices and issues objectively.)
26 I

27 R AWARENESS: (reveals awareness of problems on all levels--Board
28 I of Education, community, staff, students.)

29 R SELF-CONTROL: (maintains control of emotions when things are not
30 I going right.)

31 R SENSE OF HUMOR: (possesses a sense of the ridiculous and the ability
32 I to laugh at personal mistakes.)

33 R PERFORMANCE UNDER STRESS: (maintains perspective, exhibits confidence and
34 I successfully manages stress situations.)

35 R ATTITUDE TOWARD JOB: (shows personal interest and enthusiasm for work.)
36 I

37 R FLEXIBILITY: (adjusts rapidly to needed changes in plans or proce-
38 I dures.)

39 R MORALE MAINTENANCE ABILITY: (creates a feeling of unity and enthusiasm
40 I among those with whom he works.)

41 R CONSIDERATION OF OTHERS: (demonstrates patience, understanding, considera--
42 I tion and courtesy in school-community relationships.)

43 R APPEARANCE: (shows good taste in grooming and dresses appropriately.
44 I

DIRECTIONS

The paragraphs below describe five different types of Human Behavior. For purposes of this study, NO ONE TYPE SHOULD BE CONSIDERED MORE DESIRABLE THAN ANOTHER.

Read each paragraph carefully. You are asked to determine the three behavioral types that are "Most Like," "Next Most Like" and "Least Like" each of the individuals whose positions are identified on Page 2 of the Answer Sheet. Determine from the paragraph descriptions below those values, motives, and behaviors that are MOST dominant in the personality patterns of designated individuals in a school related work situation.

Check the appropriate boxes on the Answer Sheet that describe the behavior types you perceive most dominant, accurate and descriptive of each designated Interactor.

BEHAVIOR TYPE 1: This type person is independent, aggressive, and "inner-directed;" believes in the power of self and in his right to do as he pleases; suspicions control by authority, rules, laws and regulations; may seem indifferent and neglectful in human relations; champions causes without a need for social approval.

BEHAVIOR TYPE 2: This type person is interdependent as opposed to independent, confident and is motivated by a strong need to achieve; seeks personal fulfillment through achieving organizational goals in his own way; respects standards, values and beliefs held by other people; is neutral regarding rules, tries to understand their genesis and function, and strives to change organizational structures that are inhibitive.

BEHAVIOR TYPE 3: This type person accepts authoritative procedures and practices, and relies heavily upon time honored and tested traditions; judges tasks and rules by right and wrong, good--bad, true--false values; is organization oriented rather than people oriented; evaluates other people and things by his own value system; avoids ambiguity; seeks organized and structured work environment; is happy working within prescribed parameters.

BEHAVIOR TYPE 4: This type person is objective and undemonstrative to organizational policies, politics and disputes; pursues work in his own way, striving for personal fulfillment rather than self-esteem or status; accepts reasonable management rules and goals, and is most productive when free from rigid controls; avoids organizational structures that do not conform to his motives and values; uses information judiciously, perceptively and creatively.

BEHAVIOR TYPE 5: This type person is gregarious, tends to show "people concern" over production, and seeks a congenial atmosphere and a comfortable work pace and setting; likes to please others, and seeks their approval; finds security and comfort in identifying with the group; enjoys a wide circle of involvement; finds fulfillment in recognition and in being held in high esteem by others.

DIRECTIONS

The descriptions below describe five different and distinctive Leadership Styles. NO ONE STYLE CAN, OR SHOULD, BE CONSIDERED BETTER THAN ANOTHER FOR ALL SITUATIONS.

Check the appropriate "Leadership Style" box on the Answer Sheet (Page 2) which identifies your self-perception of the Style you use with each of the designated Interactors. The "Leadership Style" numbers on the Answer Sheet correspond with the Style descriptions enumerated below.

LEADERSHIP STYLE 1: This "traditional" style emphasizes the adherance to and utilization of policies, rules, procedures, customs and cultural values; tends toward being organization centered.

LEADERSHIP STYLE 2: This 'prescriptive" style is often viewed as being autocratic; exhibits confidence of position, technical competence and expertise; utilizes persuasion, hard bargaining and/or positional authority to achieve goals.

LEADERSHIP STYLE 3: This "people centered" style utilizes group consideration and social approval techniques; seeks rapport with associates and subordinates and relys on skill in the human aspects of administration.

LEADERSHIP STYLE 4: This "transactional" style involves technical competence and evidences group planning, involvement, task delegation and persuasive techniques for goal accomplishment.

LEADERSHIP STYLE 5: This "supportive" style integrates knowledge skills and personal consideration skills for goal accomplishment; provides encouragement and support for accomplishment of objectives; delegates, informs and stimulates for goal attainment.

LEADERSHIP— BEHAVIOR QUESTIONNAIRE ANSWER SHEET

SUPERINTENDENT'S FORM

DIRECTIONS: Use this Answer Sheet to record your answers to questions on the "Leadership--Behavior Questionnaire." Please complete all parts as requested. Thank you.

☐ Check [✓] the box if you are interested in receiving a copy of the final results of this study.

O PART I: DISTRICT NAME

Write in the name of your school district _____

Please Do Not Write in Box			
1	2	3	4

O PART II: REAL-IDEAL LEADER EFFECTIVENESS RATING SCALE

Each question on Page 2 of the Questionnaire asks for two self-perception ratings: your perception of your REAL behavior and your perception of IDEAL expectation of a superintendent in your district. Answer each question by checking the box below that most nearly reflects your perception. The numbers under the EVALUATION SCALE mean: (1) NEVER, (2) SELDOM, (3) OCCASIONALLY, (4) OFTEN, (5) ALWAYS.

		EVALUATION SCALE				
		1	2	3	4	5
5.	(Real)	☐	☐	☐	☐	☐
6.	(Ideal)	☐	☐	☐	☐	☐
7.	(Real)	☐	☐	☐	☐	☐
8.	(Ideal)	☐	☐	☐	☐	☐
9.	(Real)	☐	☐	☐	☐	☐
10.	(Ideal)	☐	☐	☐	☐	☐
11.	(Real)	☐	☐	☐	☐	☐
12.	(Ideal)	☐	☐	☐	☐	☐
13.	(Real)	☐	☐	☐	☐	☐
14.	(Ideal)	☐	☐	☐	☐	☐
15.	(Real)	☐	☐	☐	☐	☐
16.	(Ideal)	☐	☐	☐	☐	☐
17.	(Real)	☐	☐	☐	☐	☐
18.	(Ideal)	☐	☐	☐	☐	☐
19.	(Real)	☐	☐	☐	☐	☐
20.	(Ideal)	☐	☐	☐	☐	☐
21.	(Real)	☐	☐	☐	☐	☐
22.	(Ideal)	☐	☐	☐	☐	☐
23.	(Real)	☐	☐	☐	☐	☐
24.	(Ideal)	☐	☐	☐	☐	☐

		EVALUATION SCALE				
		1	2	3	4	5
25.	(Real)	☐	☐	☐	☐	☐
26.	(Ideal)	☐	☐	☐	☐	☐
27.	(Real)	☐	☐	☐	☐	☐
28.	(Ideal)	☐	☐	☐	☐	☐
29.	(Real)	☐	☐	☐	☐	☐
30.	(Ideal)	☐	☐	☐	☐	☐
31.	(Real)	☐	☐	☐	☐	☐
32.	(Ideal)	☐	☐	☐	☐	☐
33.	(Real)	☐	☐	☐	☐	☐
34.	(Ideal)	☐	☐	☐	☐	☐
35.	(Real)	☐	☐	☐	☐	☐
36.	(Ideal)	☐	☐	☐	☐	☐
37.	(Real)	☐	☐	☐	☐	☐
38.	(Ideal)	☐	☐	☐	☐	☐
39.	(Real)	☐	☐	☐	☐	☐
40.	(Ideal)	☐	☐	☐	☐	☐
41.	(Real)	☐	☐	☐	☐	☐
42.	(Ideal)	☐	☐	☐	☐	☐
43.	(Real)	☐	☐	☐	☐	☐
44.	(Ideal)	☐	☐	☐	☐	☐

O PART III: DESCRIPTIONS OF HUMAN BEHAVIOR TYPES

For persons in positions identified below, select behavior types which reflect your perception. For each question, check the box that identifies the behavioral description(from Page 3 of the Questionnaire) that is "Most Like," "Next Most Like," and "Least Like" each respondent. BEHAVIOR TYPE numbers correspond respectively to the behavioral descriptions in the Questionnaire.

	BEHAVIOR TYPES 1 2 3 4 5
SECONDARY PRINCIPAL	
45. Most Like	[] [] [] [] []
46. Next Most Like	[] [] [] [] []
47. Least Like	[] [] [] [] []
ELEMENTARY PRINCIPAL	
48. Most Like	[] [] [] [] []
49. Next Most Like	[] [] [] [] []
50. Least Like	[] [] [] [] []
PRES, LCL EDUC ASSN/TCHRS UNION	
51. Most Like	[] [] [] [] []
52. Next Most Like	[] [] [] [] []
53. Least Like	[] [] [] [] []
PRES/CHMN, CURRIC CNCL	
54. Most Like	[] [] [] [] []
55. Next Most Like	[] [] [] [] []
56. Least Like	[] [] [] [] []

	BEHAVIOR TYPES 1 2 3 4 5
PRES, BOARD OF EDUCATION	
57. Most Like	[] [] [] [] []
58. Next Most Like	[] [] [] [] []
59. Least Like	[] [] [] [] []
VICE PRES or SEC, BD OF EDUC	
60. Most Like	[] [] [] [] []
61. Next Most Like	[] [] [] [] []
62. Least Like	[] [] [] [] []
PRES/CHMN, CTZNS ADV CNCL/PTA/PTO	
63. Most Like	[] [] [] [] []
64. Next Most Like	[] [] [] [] []
65. Least Like	[] [] [] [] []
OTHER, as specified(Part I)	
66. Most Like	[] [] [] [] []
67. Next Most Like	[] [] [] [] []
68. Least Like	[] [] [] [] []

O PART IV: DESCRIPTIONS OF LEADERSHIP STYLES

Check the box representing your self-perception of the Leadership Style you use with persons in positions identified below. The "Leadership Style" numbers correspond respectively to the Leadership Style descriptions in the Questionnaire (Page 4).

	LEADERSHIP STYLES 1 2 3 4 5
69. SECONDARY PRINCIPAL	[] [] [] [] []
70. ELEMENTARY PRINCIPAL	[] [] [] [] []
71. PRES, LCL ED ASSN/TCHRS UNION	[] [] [] [] []
72. PRES/CHMN, CURRIC COUNCIL	[] [] [] [] []
73. PRES, BOARD OF EDUCATION	[] [] [] [] []
74. VICE PRES/SEC, BD OF EDUC	[] [] [] [] []
75. PRES/CHMN, CTZNS ADV CNCL/PTA/PTO	[] [] [] [] []
76. OTHER, AS SPECIFIED(PART I)	[] [] [] [] []

MAIL TO: Doyle R. Anderson, Prin. Investigator
Educator Feedback Center, W. M. U.
Kalamazoo, Michigan 49001

Form: LBQ AS-S

LEADERSHIP BEHAVIOR QUESTIONNAIRE

Interactor Form

THIS QUESTIONNAIRE REQUESTS INFORMATION ABOUT:

- The Name of your School District, and identification of your school-affiliated position in the District
- Your REAL and IDEAL perceptions of the Superintendent's effectiveness
- A self-evaluation of your own Behavioral Characteristics (Types)
- Your perception of the Superintendent's Leadership Style.

PLEASE:

1. Complete all parts of the Questionnaire
2. Mark all answers on the enclosed Answer Sheet
3. Promptly return the completed Answer Sheet (only) in the return envelope provided.

DIRECTIONS

PART I: DISTRICT AND POSITION IDENTIFICATION

Ques. 1-3: Write in the name of your school district on the line provided on your Answer Sheet.

Ques. 4: Identify the school-affiliated position you hold by checking [✓] the appropriate box on the Answer Sheet. If you check box #9, specify your position.

PART II: REAL--IDEAL LEADER EFFECTIVENESS RATING SCALE

Ques. 5-44: For each question in the Questionnaire, mark on your Answer Sheet both REAL and IDEAL perceptions of your Superintendent.

REAL means your perception of the Superintendent's actual behavior.

IDEAL means your image of the leadership traits and skills a superintendent should have to be effective in your school district.

"R" and "I" behind each question number in the Questionnaire refers to REAL and IDEAL perceptions. These correspond to (Real) and (Ideal) designations after each question number on the Answer Sheet.

5 R BUSINESS OPERATIONS: (demonstrates a knowledge and understanding of school
6 I finance, law and business operations.)

7 R PERSONNEL POLICIES: (demonstrates a knowledge of sound personnel policies
8 I and translates that knowledge into practice.)

9 R RESEARCH & CURRICULUM: (demonstrates a knowledge of research and curricular
10 I needs of children.)

11 R ABILITY TO DELEGATE RESPONSIBILITY: (assigns tasks to personnel capable of
12 I carrying them out.)

13 R DECISION-MAKING ABILITY: (issues constructive, appropriate and timely
14 I decisions.)

15 R MANAGERIAL SKILLS: (coordinates the efforts of those responsible to him
16 I so that the organization operates efficiently.)

17 R LEADERSHIP SKILLS: (exhibits those qualities and skills which facilitate
18 I the attainment of goals that are mutually acceptable.)

19 R ENCOURAGEMENT: (encourages the raising of questions and the expres-
20 I sion of opinion.)

21 R DRIVE & INNOVATIVENESS: (stimulates initiative and willingness to accomplish
22 I meaningful goals and try new approaches and methods.)

23 R COMMUNICATION: (defines and explains expectations of staff members,
24 I communicates articulately and expresses ideas smoothly.)

25 R EVALUATING ABILITY: (evaluates programs, practices and issues objectively.)
26 I

27 R AWARENESS: (reveals awareness of problems on all levels--Board
28 I of Education, community, staff, students.)

29 R SELF-CONTROL: (maintains control of emotions when things are not
30 I going right.)

31 R SENSE OF HUMOR: (possesses a sense of the ridiculous and the ability
32 I to laugh at personal mistakes.)

33 R PERFORMANCE UNDER STRESS: (maintains perspective, exhibits confidence and
34 I successfully manages stress situations.)

35 R ATTITUDE TOWARD JOB: (shows personal interest and enthusiasm for work.)
36 I

37 R FLEXIBILITY: (adjusts rapidly to needed changes in plans or proce-
38 I dures.)

39 R MORALE MAINTENANCE ABILITY: (creates a feeling of unity and enthusiasm
40 I among those with whom he works.)

41 R CONSIDERATION OF OTHERS: (demonstrates patience, understanding, considera--
42 I tion and courtesy in school-community relationships.)

43 R APPEARANCE: (shows good taste in grooming and dresses appropriately.
44 I

DIRECTIONS

The paragraphs below describe five different types of Human Behavior. For purposes of this study, NO ONE TYPE SHOULD BE CONSIDERED MORE DESIRABLE THAN ANOTHER.

Read each paragraph carefully. You are asked to select from the five descriptions, the three behavioral types that are "Most Like," "Next Most Like" and "Least Like" yourself. Determine those values, motives, and behaviors that are MOST dominant in your personality pattern.

Check the appropriate boxes on the Answer Sheet (Page 2) that is MOST descriptive for the information requested. Be as objective about your "self-evaluation" as possible.

BEHAVIOR TYPE 1: This type person is independent, aggressive, and "inner-directed;" believes in the power of self and in his right to do as he pleases; suspicions control by authority, rules, laws and regulations; may seem indifferent and neglectful in human relations; champions causes without a need for social approval.

BEHAVIOR TYPE 2: This type person is interdependent as opposed to independent, confident and is motivated by a strong need to achieve; seeks personal fulfillment through achieving organizational goals in his own way; respects standards, values and beliefs held by other people; is neutral regarding rules, tries to understand their genesis and function, and strives to change organizational structures that are inhibitive.

BEHAVIOR TYPE 3: This type person accepts authoritative procedures and practices, and relies heavily upon time honored and tested traditions; judges tasks and rules by right and wrong, good--bad, true--false values; is organization oriented rather than people oriented; evaluates other people and things by his own value system; avoids ambiguity; seeks organized and structured work environment; is happy working within prescribed parameters.

BEHAVIOR TYPE 4: This type person is objective and undemonstrative to organizational policies, politics and disputes; pursues work in his own way, striving for personal fulfillment rather than self-esteem or status; accepts reasonable management rules and goals, and is most productive when free from rigid controls; avoids organizational structures that do not conform to his motives and values; uses information judiciously, perceptively and creatively.

BEHAVIOR TYPE 5: This type person is gregarious, tends to show "people concern" over production, and seeks a congenial atmosphere and a comfortable work pace and setting; likes to please others, and seeks their approval; finds security and comfort in identifying with the group; enjoys a wide circle of involvement; finds fulfillment in recognition and in being held in high esteem by others.

DIRECTIONS

The descriptions below describe five different and distinctive Leadership Styles. NO ONE STYLE CAN, OR SHOULD, BE CONSIDERED BETTER THAN ANOTHER FOR ALL SITUATIONS.

Check the appropriate "Leadership Style" box on the Answer Sheet(Page 2) which identifies your perception of the Leadership Style used by your Superintendent with you. Please answer each question as requested. The "Leadership Style" numbers on the Answer Sheet correspond with the Style descriptions enumerated below.

LEADERSHIP STYLE 1: This "traditional" style emphasizes the adherance to and utilization of policies, rules, procedures, customs and cultural values; tends toward being organization centered.

LEADERSHIP STYLE 2: This "prescriptive" style is often viewed as being autocratic; exhibits confidence of position, technical competence and expertise; utilizes persuasion, hard bargaining and/or positional authority to achieve goals.

LEADERSHIP STYLE 3: This "people centered" style utilizes group consideration and social approval techniques; seeks rapport with associates and subordinates and relys on skill in the human aspects of administration.

LEADERSHIP STYLE 4: This "transactional" style involves technical competence and evidences group planning, involvement, task delegation and persuasive techniques for goal accomplishment.

LEADERSHIP STYLE 5: This "supportive" style integrates knowledge skills and personal consideration skills for goal accomplishment; provides encouragement and support for accomplishment of objectives; delegates, informs and stimulates for goal attainment.

LEADERSHIP
BEHAVIOR QUESTIONNAIRE ANSWER SHEET INTERACTOR FORM

DIRECTIONS: Use this Answer Sheet to record your answers to questions on the "Leadership--Behavior Questionnaire." Please complete all parts as requested.

☐ Check [✓] the box if you are interested in receiving a copy of the final results of this study.

O PART I: DISTRICT NAME AND POSITION IDENTIFICATION

Write in the name of your school district_____

Do Not Write in Box		
1	2	3

4. The School Leadership Position which I currently hold is: (Check One)

(2) [ ] Secondary School Principal
(3) [ ] Elementary School Principal
(4) [ ] President, Local Education Association/Teachers Union
(5) [ ] President/Chairman, School Curriculum Council
(6) [ ] President, Board of Education
(7) [ ] Vice President or Secretary, Board of Education
(8) [ ] President/Chairman, Citizens Advisory Council/PTA/PTO
(9) [ ] Other(Specify_____)

O PART II: REAL--IDEAL LEADER EFFECTIVENESS RATING SCALE

Each question on Page 2 of the Questionnaire asks for two responses about your Superintendent: your REAL perception of his behavior and your expectation of IDEAL behavior. Answer each question by checking the box below which most nearly reflects your perception. The numbers under the EVALUATION SCALE mean: (1) NEVER, (2) SELDOM, (3) OCCASIONALLY, (4) OFTEN, (5) ALWAYS.

	EVALUATION SCALE						EVALUATION SCALE				
	1	2	3	4	5		1	2	3	4	5
5. (Real)	[]	[]	[]	[]	[]	25. (Real)	[]	[]	[]	[]	[]
6. (Ideal)	[]	[]	[]	[]	[]	26. (Ideal)	[]	[]	[]	[]	[]
7. (Real)	[]	[]	[]	[]	[]	27. (Real)	[]	[]	[]	[]	[]
8. (Ideal)	[]	[]	[]	[]	[]	28. (Ideal)	[]	[]	[]	[]	[]
9. (Real)	[]	[]	[]	[]	[]	29. (Real)	[]	[]	[]	[]	[]
10. (Ideal)	[]	[]	[]	[]	[]	30. (Ideal)	[]	[]	[]	[]	[]
11. (Real)	[]	[]	[]	[]	[]	31. (Real)	[]	[]	[]	[]	[]
12. (Ideal)	[]	[]	[]	[]	[]	32. (Ideal)	[]	[]	[]	[]	[]
13. (Real)	[]	[]	[]	[]	[]	33. (Real)	[]	[]	[]	[]	[]
14. (Ideal)	[]	[]	[]	[]	[]	34. (Ideal)	[]	[]	[]	[]	[]
15. (Real)	[]	[]	[]	[]	[]	35. (Real)	[]	[]	[]	[]	[]
16. (Ideal)	[]	[]	[]	[]	[]	36. (Ideal)	[]	[]	[]	[]	[]
17. (Real)	[]	[]	[]	[]	[]	37. (Real)	[]	[]	[]	[]	[]
18. (Ideal)	[]	[]	[]	[]	[]	38. (Ideal)	[]	[]	[]	[]	[]
19. (Real)	[]	[]	[]	[]	[]	39. (Real)	[]	[]	[]	[]	[]
20. (Ideal)	[]	[]	[]	[]	[]	40. (Ideal)	[]	[]	[]	[]	[]
21. (Real)	[]	[]	[]	[]	[]	41. (Real)	[]	[]	[]	[]	[]
22. (Ideal)	[]	[]	[]	[]	[]	42. (Ideal)	[]	[]	[]	[]	[]
23. (Real)	[]	[]	[]	[]	[]	43. (Real)	[]	[]	[]	[]	[]
24. (Ideal)	[]	[]	[]	[]	[]	44. (Ideal)	[]	[]	[]	[]	[]

O PART III: DESCRIPTIONS OF HUMAN BEHAVIOR TYPES

Which of the behavioral descriptions in the Questionnaire (Page 3) are "Most Like," "Next Most Like," and "Least Like" yourself, based upon your own self-perception. Check the appropriate box under the number representing each respective behavior. Please be sure to answer all three questions.

	BEHAVIOR TYPES				
	1	2	3	4	5
45. Most Like	[]	[]	[]	[]	[]
46. Next Most Like	[]	[]	[]	[]	[]
47. Least Like	[]	[]	[]	[]	[]

O PART IV: DESCRIPTIONS OF LEADERSHIP STYLES

Check the box representing your perception of the Leadership Style that is "Most Like," "Next Most Like," and "Least Like" your Superintendent. The "Leadership Style" numbers correspond respectively to the Style descriptions in the Questionnaire(Page 4). Please mark your perception for all three questions.

	LEADERSHIP STYLES				
	1	2	3	4	5
48. Most Like	[]	[]	[]	[]	[]
49. Next Most Like	[]	[]	[]	[]	[]
50. Least Like	[]	[]	[]	[]	[]

MAIL TO: Doyle R. Anderson, Prin. Investigator
Educator Feedback Center, W. M. U.
Kalamazoo, Michigan 49001

Form: LBQ AS-I

APPENDIX C

WESTERN MICHIGAN UNIVERSITY
EDUCATOR FEEDBACK CENTER (616) 383-6036
12 DIBELOW HALL
KALAMAZOO, MICHIGAN 49001

May 8, 1972

Dear Superintendent

On April 3rd, we wrote you and requested your participation in a research study of leadership, comparing the varying leadership styles used by the superintendent with behavior types of those with whom he interacts in a leadership capacity. Accompanying that letter of request were questionnaires to be distributed to seven designated people in your district, together with a set for you to complete.

To date, we have not heard from you or from anyone in your district, thus this reminder. The study includes 110 school districts in Michigan of varying size. We have returns so far from nearly half of them and are desirous of including data from your district in the study. In the rush of things, perhaps it has been overlooked. We are striving to have all data collected by May 31, so a few minutes of your attention to this study now will be greatly appreciated.

As indicated, we will be happy to share with you the results of this research in appreciation for your participation. We reconfirm our promise for anonymity of individual participant responses and of district identification.

We hope to receive your questionnaire Answer Sheet and "Roster of District Respondents" Form soon; likewise to soon hear from the seven designates in your school district. I would be pleased to answer any questions you may have about the study.

Sincerely,

Doyle R. Anderson
Principal Investigator
1731 Anthony Drive
St. Joseph, Mich. 49085
Phone: (616) 429 7654

DRA

WESTERN MICHIGAN UNIVERSITY
EDUCATOR FEEDBACK CENTER (616) 383-6056
12 BIGELOW HALL
KALAMAZOO, MICHIGAN 49001

May 8, 1972

Dear Respondent:

This reminder is to encourage you to complete the Leadership Questionnaire recently given you by your school superintendent. You are one of the few not yet heard from. In the rush of things at this time of year perhaps it has been overlooked.

We hope to have all data collected by May 31, so a few minutes of your attention to this study will now be greatly appreciated. Would you please complete and drop in the mail your questionnaire "Answer Sheet" today?

In appreciation, we will be happy to share with you the results of this study as indicated in our letter to you. Again I give you assurance of our promise for anonymity of participant responses and district identification.

I am looking forward to receiving your Answer Sheet soon.

Sincerely,

Doyle R. Anderson
Principal Investigator
1731 Anthony Drive
St. Joseph, Mich. 49085
Phone: (616) 429 7654

DRA

APPENDIX D

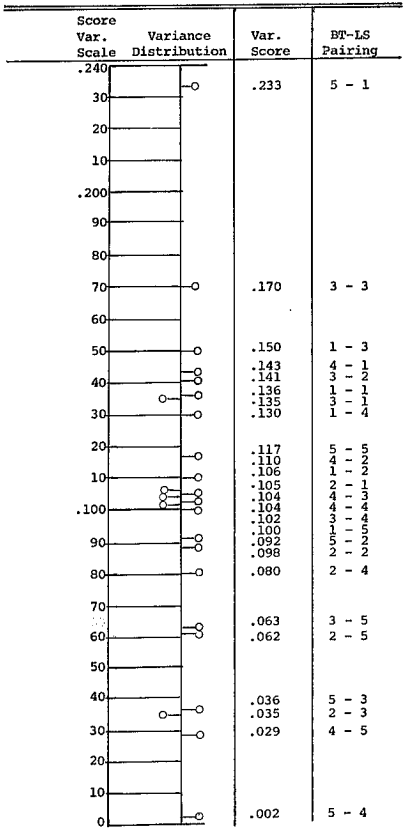

Figure 20

Mean ERS Variance Between "P" Series Hypotheses Groups

Source: Table 9, page 121

Table 12

Rank Order and Within-Group Variance of Effectiveness-Ratio Scores

Perception Series One				Perception Series Two			
(A) BT-LS	(B) ERS	(C) N	(D) Var.	(A) BT-LS	(B) ERS	(C) N	(D) Var.
3 - 1	.994	3	1.10	3 - 3	.976	12	3.03
5 - 5	.984	7	4.69	4 - 4	.946	4	2.00
1 - 5	.958	1	--	2 - 4	.942	8	2.64
4 - 4	.949	13	6.35	5 - 5	.936	9	2.61
5 - 1	.922	5	6.98	1 - 1	.936	5	1.69
4 - 5	.911	21	8.25	4 - 3	.931	7	8.67
5 - 3	.905	10	1.36	1 - 4	.930	3	3.06
1 - 2	.900	1	--	4 - 5	.922	13	7.04
5 - 4	.879	11	1.22	1 - 5	.914	3	2.16
4 - 3	.877	13	1.09	3 - 5	.904	13	5.58
2 - 1	.873	17	1.34	2 - 5	.892	9	1.27
3 - 5	.862	4	1.78	5 - 3	.888	6	2.00
2 - 4	.862	20	9.61	2 - 3	.887	17	7.97
2 - 3	.860	19	1.41	5 - 4	.877	11	6.55
2 - 5	.855	27	7.32	4 - 2	.872	9	6.24
4 - 1	.851	10	1.57	2 - 1	.865	14	2.35
3 - 2	.848	4	1.97	1 - 3	.861	7	1.17
3 - 4	.848	2	2.54	3 - 1	.859	13	8.63
4 - 2	.816	11	1.29	2 - 2	.833	14	8.30
5 - 2	.811	8	1.26	3 - 2	.819	14	2.03
2 - 2	.808	15	2.17	3 - 4	.819	5	1.20
3 - 3	.806	8	3.13	1 - 2	.794	11	1.50
1 - 4	.800	1	--	5 - 2	.769	9	8.62
1 - 3	.781	2	4.75	4 - 1	.763	8	1.24
				5 - 1	.722	8	1.46

Table 13

Rank Order and Within-Group Variance of Effectiveness-Ratio Scores

Perception Series Three				Perception Series Four			
(A) BT-LS	(B) ERS	(C) N	(D) Var.	(A) BT-LS	(B) ERS	(C) N	(D) Var.
2 - 4	.931	16	6.47	1 - 4	.958	1	--
1 - 3	.931	4	3.65	5 - 1	.955	15	.23
1 - 1	.931	4	2.72	5 - 5	.935	10	4.81
4 - 2	.926	5	1.11	3 - 5	.925	4	3.87
4 - 5	.919	15	5.37	3 - 4	.921	1	--
3 - 5	.912	12	3.58	5 - 3	.919	15	3.78
4 - 1	.906	6	8.94	2 - 5	.917	26	4.65
2 - 1	.896	9	8.54	4 - 3	.914	16	6.66
3 - 2	.889	8	2.83	4 - 4	.901	16	5.31
2 - 5	.884	15	3.65	2 - 3	.895	19	7.63
1 - 4	.884	17	3.79	4 - 5	.893	18	1.10
3 - 3	.879	13	2.35	2 - 4	.877	14	8.99
5 - 4	.878	6	5.03	5 - 4	.877	6	1.34
3 - 1	.872	14	1.10	3 - 3	.877	5	3.27
5 - 5	.867	18	1.27	5 - 2	.861	6	6.26
2 - 3	.865	14	1.62	4 - 1	.860	16	7.36
3 - 4	.862	12	1.48	3 - 1	.859	7	6.78
1 - 5	.858	2	6.31	4 - 2	.854	16	1.29
5 - 1	.845	4	3.65	1 - 2	.842	2	1.89
4 - 4	.842	6	1.95	2 - 2	.822	19	9.72
5 - 3	.833	13	1.78	1 - 3	.821	3	7.07
4 - 3	.827	10	1.27	1 - 1	.800	1	--
1 - 2	.801	12	1.16	2 - 1	.791	20	1.88
5 - 2	.775	5	1.73	3 - 2	.748	6	3.55
2 - 2	.744	10	1.84				

Table 14

Real and Ideal Mean "E" Score According to Specified Criteria

Effectiveness Criteria	LBQ Item No.	R I	Position Classification (1) Supt	(2) Sec Prin	(3) Elem Prin	(4) LEA Pres	(5) Curr Pres	(6) Bd Ed Pres	(7) Bd Ed V. Pr	(8) PTA/O Pres	(9) Other (Spec)
Bus Oper.	5	R	4.25	4.50	4.58	4.28	4.36	4.61	4.34	4.35	4.48
	6	I	4.81	4.71	4.80	4.77	4.61	4.64	4.54	4.62	4.80
Pers. Pol.	7	R	4.04	4.06	4.07	3.54	4.21	4.00	4.00	4.00	3.64
	8	I	4.81	4.67	4.76	4.54	4.79	4.68	4.69	4.77	4.88
Rsch., Cur.	9	R	3.42	3.67	3.59	3.56	3.71	4.00	3.91	3.96	3.64
	10	I	4.40	4.37	4.32	4.62	4.75	4.54	4.46	4.62	4.64
Del. Resp.	11	R	4.16	4.23	4.20	3.85	4.21	3.71	4.03	4.00	3.96
	12	I	4.75	4.59	4.61	4.64	4.64	4.54	4.57	4.58	4.72
Dec. Mkg.	13	R	4.02	3.78	3.85	3.44	4.00	4.07	4.00	3.92	3.72
	14	I	4.83	4.52	4.56	4.59	4.75	4.61	4.49	4.58	4.76
Mgr. Skill	15	R	3.94	4.10	4.12	3.72	4.11	4.04	4.09	3.85	3.72
	16	I	4.83	4.71	4.71	4.80	4.79	4.71	4.69	4.69	4.76
Ldr. Skill	17	R	3.87	4.00	3.98	3.56	3.89	4.04	4.09	3.96	3.64
	18	I	4.79	4.67	4.75	4.59	4.68	4.61	4.50	4.54	4.72
Encrgmt.	19	R	4.12	4.04	4.20	3.23	4.18	4.00	4.06	3.96	3.56
	20	I	4.79	4.65	4.68	4.59	4.64	4.25	4.37	4.58	4.56
Dr., Inno.	21	R	4.04	4.04	4.03	3.46	4.14	4.11	3.91	3.92	3.56
	22	I	4.58	4.52	4.68	4.67	4.68	4.43	4.37	4.46	4.72
Communica.	23	R	3.65	3.80	3.76	3.15	3.61	3.89	3.87	3.77	3.56
	24	I	4.77	4.52	4.64	4.77	4.75	4.50	4.69	4.58	4.72
Eval. Abi.	25	R	3.73	3.75	3.80	3.46	3.75	4.11	3.94	3.85	3.68
	26	I	4.75	4.45	4.59	4.67	4.71	4.71	4.60	4.48	4.56
Awareness	27	R	3.98	4.00	4.22	3.74	4.29	3.96	4.03	4.12	3.96
	28	I	4.80	4.55	4.71	4.64	4.79	4.61	4.69	4.72	4.68
Self-con.	29	R	4.00	4.17	4.09	3.82	4.07	4.39	4.06	4.15	4.20
	30	I	4.78	4.53	4.54	4.59	4.71	4.50	4.63	4.73	4.60

continued

Table 14 (concluded)

Effectiveness Criteria	LBQ Item No.	R I	Position Classification (1) Supt	(2) Sec Prin	(3) Elem Prin	(4) LEA Prin	(5) Curr Pres	(6) Bd Ed Pres	(7) Bd Ed V. Pr	(8) PTA/O Pres	(9) Other (Spec)
Humor	31	R	4.27	4.08	4.03	3.34	3.75	4.07	3.57	3.73	3.80
	32	I	4.60	4.41	4.45	4.39	4.43	4.21	3.94	4.15	4.24
Stress	33	R	3.94	4.10	4.29	3.69	4.14	4.07	4.00	4.08	4.12
	34	I	4.83	4.64	4.66	4.62	4.71	4.57	5.51	5.54	4.68
Job Atti.	35	R	4.63	4.59	4.66	4.36	4.54	4.82	4.71	4.69	4.24
	36	I	4.88	4.78	4.86	4.72	4.93	4.75	4.65	4.73	4.72
Flexibil.	37	R	3.90	3.94	3.95	3.32	3.86	4.04	4.20	3.69	3.71
	38	I	4.75	4.53	4.54	4.53	4.50	4.46	4.60	4.46	4.54
Morale Mtn.	39	R	3.90	3.61	3.72	2.90	3.86	3.93	4.06	3.85	3.28
	40	I	4.77	4.46	4.63	4.67	4.71	4.50	4.60	4.69	4.72
Considera.	41	R	4.21	4.06	4.22	3.74	4.07	4.29	4.20	4.12	4.00
	42	I	4.85	4.65	4.64	4.62	4.71	4.68	4.57	4.73	4.60
Appearance	43	R	4.27	4.71	4.64	4.77	4.75	4.68	4.57	4.72	4.64
	44	I	4.65	4.77	4.78	4.77	4.82	4.64	4.63	4.65	4.72