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# Interpersonal relationships of elementary and senior high principals and compatibility with their superintendents

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Interpersonal relationships of elementary and  
senior high principals and compatibility  
with their superintendents

by

Richard John Larson

A Dissertation Submitted to the  
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## CHAPTER 1. INTRODUCTION

The quality and degree of accomplishment of any organization is related to the nature of its leadership, and educational institutions are no exception. Therefore, it is necessary that the most effective administrators be selected for positions of leadership within schools. If the most competent and skillful individuals are to be identified, selection procedures capable of predicting effectiveness must be developed.

One method of predicting the successful performance of educational administrators is to identify and measure personal factors which differentiate between the least effective and most effective individuals. These factors can then be considered, in conjunction with other data, in selecting candidates for administrative positions previous to actual employment as a means of providing more competent educational leaders.

Presently, techniques for selecting educational administrators are based primarily on the subjective judgment of superiors with little or no attempt to utilize methods which are quantitative or objective. The most common approach to selecting educational administrators involves a review of letters of recommendation, academic grades, biographical information and a personal interview. However, the capacity of this method to discriminate between the least effective and most effective administrators is extremely limited (44, p. 1).

There have been attempts to develop a more objective approach to measuring factors thought to be associated with leadership in educational settings such as aptitude tests, personality tests, sociometric techniques, situational tests, interest inventories, and value tests. Information

yielded by these methods, while useful, lacks the validity to be predictive (42, pp. 23-29). However, when this data is assembled and intelligently utilized it is likely that the more capable individuals are being selected for administrative posts.

An area in which there appears to be a lack of significant research is that of interpersonal relations of school administrators and the application of techniques designed to measure this factor. McIntyre (32) indicates that research shows that school administrators spend most of their time with people and that the elements cited as contributing to their success or failure are in the human relations category. Results of a study conducted by a Teachers College, Columbia University project concerned with interpersonal relations in educational administration suggest that techniques designed to select potential administrators should be geared toward attracting individuals possessing skills of social effectiveness (32).

If patterns of interpersonal relations of most effective administrators could be identified, this information could be employed in predicting the effectiveness of potential administrators. In addition, if a method could be developed to determine the complementarity of interpersonal relationships, such information could be used to establish more compatible administrative teams.

#### Need for the Study

Techniques utilized to select educational administrators lack the predictive capability to differentiate between least effective and most effective leaders. New methods possessing a higher degree of validity and considering other aspects of educational leadership must be developed, if



the educational institutions are to be led by the most competent individuals.

Successful administrators are capable of establishing interpersonal relations with other individuals with whom they come into contact. If patterns of interpersonal relations possessed by more effective administrators could be identified, school boards and others responsible for choosing educational leaders could apply this knowledge as part of their screening process, thus increasing the possibility of selecting the most capable from a group of candidates. In addition, individuals interested in school administration could be provided with proper guidance previous to entering a graduate program designed to train them to become educational administrators.

This study will also explore whether interpersonal need compatibility of superintendents with their principals is a factor in the superintendents selecting those with whom they would want to work. "Work with" will be defined as those administrators whom the superintendents would select to accompany them as a part of their staff if they were to move to another school district. If this factor appears to be significant, this technique could be used as a method to establish compatibility between superintendents and lower level administrators at the time of initial application for employment.

#### The Problem

The purposes of this study were to examine the interpersonal profiles of the most effective elementary and senior high principals, to determine whether or not there were significant differences in the behavioral

characteristics of elementary and senior high principals with reference to effectiveness and size of school district and to ascertain the compatibility of superintendents with their principals. The specific questions which this study sought to answer were as follows:

1. What are the interpersonal behavior patterns of the most effective elementary principals and the most effective senior high principals?
2. Are the interpersonal behavior patterns of the most effective elementary principals different when compared to the most effective senior high principals?
3. Are the interpersonal behavior patterns of the most effective elementary principals different when compared to the least effective elementary principals?
4. Are the interpersonal behavior patterns of the most effective senior high principals different when compared to the least effective senior high principals?
5. Are the interpersonal behavior patterns of the most effective elementary principals in a large school district different when compared to the most effective elementary principals in a small school district?
6. Are the interpersonal behavior patterns of the most effective senior high principals in a large school district different when compared to the most effective senior high principals in a small school district?
7. Are the interpersonal behavior patterns of the most effective elementary principals in a large school district different when

- compared to the least effective elementary principals in a large school district?
8. Are the interpersonal behavior patterns of the most effective elementary principals in a small school district different when compared to the least effective elementary principals in a small school district?
  9. Are the interpersonal behavior patterns of the most effective senior high principals in a large school district different when compared to the least effective senior high principals in a large school district?
  10. Are the interpersonal behavior patterns of the most effective senior high principals in a small school district different when compared to the least effective senior high principals in a small school district?
  - ii. Are the interpersonal behavior patterns of the most effective elementary and senior high principals different when compared to the least effective elementary and senior high principals?
  12. Would superintendents select those principals with whom the superintendents are most compatible to accompany them as part of their staff if the superintendents were to become employed in another school district?

#### Hypotheses

1. Utilizing the FIRO-B as a measurement of interpersonal relationships yielding scores in the six areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, and

affection wanted, the null hypotheses related to these areas are as follows:

- a. There are no significant differences between the most effective elementary principals and the most effective senior high principals.
- b. There are no significant differences between the most effective elementary principals and the least effective elementary principals.
- c. There are no significant differences between the most effective senior high principals and the least effective senior high principals.
- d. There are no significant differences between the most effective elementary principals in a large school district and the most effective elementary principals in a small school district.
- e. There are no significant differences between the most effective senior high principals in a large school district and the most effective senior high principals in a small school district.
- f. There are no significant differences between the most effective elementary principals in a large school district and the least effective elementary principals in a large school district.
- g. There are no significant differences between the most effective elementary principals in a small school district and the least effective elementary principals in a small school district.
- h. There are no significant differences between the most effective senior high principals in a large school district and the least effective senior high principals in a large school district.

- i. There are no significant differences between the most effective senior high principals in a small school district and the least effective senior high principals in a small school district.
  - j. There are no significant differences between the most effective elementary and senior high principals and the least effective elementary and senior high principals.
2. Utilizing the FIRO-B as a measurement of reciprocal compatibility inclusion, reciprocal compatibility control, reciprocal compatibility affection, reciprocal compatibility, originator compatibility inclusion, originator compatibility control, originator compatibility affection, originator compatibility, interchange compatibility inclusion, interchange compatibility control, interchange compatibility affection, interchange compatibility, and total compatibility, the null hypothesis related to these areas is as follows:
- a. There are no significant differences between two groups of superintendents and their principals. Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him as part of his staff if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him as part of his staff if he were to become employed in a new school district.

## Definition of Terms

The terms used in this study are defined as follows:

1. Superintendent: The chief school administrator of a local public school district in Iowa, organized to serve students enrolled in kindergarten through grade 12, who has been employed in that capacity for at least three consecutive years.
2. Principal: The administrative head of a local public school attendance unit in Iowa.
3. Small school elementary principal: The administrative head of a local public school attendance unit in Iowa serving students enrolled in grades K through 6 with a school district enrollment of 600 or less students.
4. Small school senior high principal: The administrative head of a local public school attendance unit in Iowa serving students enrolled in grades 9 through 12 with a school district enrollment of 600 or less students.
5. Large school elementary principal: The administrative head of a local public school attendance unit in Iowa serving students enrolled in grades K through 6 with a school district enrollment of 2,000 or more students with an upper range of 40,000.
6. Large school senior high principal: The administrative head of a local public school attendance unit in Iowa serving students enrolled in grades 9 through 12 with a school district enrollment of 2,000 or more students with an upper range of 40,000.

7. Most effective senior high principal: A principal whose total score on the Principal Evaluation Form falls at or above the top quartile score of all senior high principals.
8. Least effective senior high principal: A principal whose total score on the Principal Evaluation Form falls at or below the bottom quartile score of all senior high principals.
9. Most effective elementary principal: A principal whose total score on the Principal Evaluation Form falls at or above the top quartile score of all elementary principals.
10. Least effective elementary principal: A principal whose total score on the Principal Evaluation Form falls at or below the Bottom quartile score of all elementary principals.
11. FIRO-B (Fundamental Interpersonal Relationships Orientation - Behavior): An instrument designed to measure the behavior patterns of people in interpersonal situations.
12. Compatibility: A property of a relation between two or more persons that leads to mutual satisfaction of interpersonal needs and harmonious coexistence. It is best explicated sociometrically by the relation "works well with."

#### Sources of Data

All of the data used in this study pertaining to superintendents, elementary principals, and senior high principals were obtained from the above named administrators' responses to the FIRO-B, a test designed to measure behavioral characteristics in interpersonal situations as well as interpersonal compatibility. A Principal Evaluation Form was completed by the

superintendents for purposes of identifying the least effective and most effective elementary and senior high principals.

#### Delimitations of the Study

This study was limited to 100 school districts in the State of Iowa: 50 of the largest (above 2,000 enrollment) and 50 of the smallest (below 500 enrollment). The school districts were selected on the basis of the respective sizes of their school, and where superintendents had been employed in their present position for at least three years.

#### Organization of the Study

This study was organized into five chapters. The first chapter includes the statement of the problem, the need for the study, hypotheses, definitions, source of data, delimitations of the study, and organization. The second chapter consists of a review of the related literature. Chapter 3 discusses the procedures of the study. Chapter 4 contains the findings. Chapter 5 contains the summary, conclusions and recommendations.

#### Summary

The effectiveness of any organization is related to the quality of its leadership. The local public school district is no exception. If excellence in education is to be established and maintained, it is essential that those individuals selected as educational administrators be the most effective leaders possible. The probability of providing more effective educational leaders is increased if more valid and sophisticated selection procedures are developed. Presently, methods of selecting educational administrators are based primarily upon the subjective judgments of



supervisors, college professors, and potential employers with little emphasis upon more objectively oriented data.

It was the purpose of this study to provide an objective measure of interpersonal behavior of effective administrators to assist superintendents and local school boards in selecting the most effective elementary and the most effective senior high principals. In addition, teachers contemplating educational administration as a career could be provided with relevant personal data to guide them in the decision-making process concerning vocational planning prior to embarking upon an expensive and time-consuming training program.

Secondarily, this research sought to determine whether William Schutz's concept of compatibility, as measured by the FIRO-B, could be utilized in forming teams of administrators with complementary interpersonal needs necessary to initiate and sustain a close working relationship.

Hypotheses were formulated to compare the behavioral characteristics of the most effective and least effective small and large school elementary and senior high principals. Their superintendents employed in the same position in that district for at least a period of three years were requested to rate these principals utilizing a principal's evaluation form as a means of determining the effectiveness of principals. The compatibility of superintendents with their principals was also determined.

## CHAPTER 2. REVIEW OF RELATED LITERATURE

This chapter reviews the literature pertaining to the identification of personal and situational elements associated with effective leadership, methods and techniques employed in selecting potential leaders for administrative and supervisory positions, and an examination of the Fundamental Theory of Interpersonal Relations as presented by William Schutz. In addition, research pertaining to the concept of interpersonal compatibility is also reviewed.

## Factors Associated with Effective Leadership

Lipham (26) studied the relationship between certain aspects of personality utilizing an adjective checklist, Edwards Personal Preference Schedule, and a sentence completion test and those persons identified as effective principals. Eighty-four subjects were ranked by selected superintendents and assistant superintendents and categorized into top (effective) and bottom (ineffective) quarters. Results indicated that effective principals were inclined to engage in strong and purposeful activity, were concerned with achieving success and positions of higher status, were able to relate well to others, were secure in interpersonal relationships, and were calm in emotionally-charged situations. The ineffective principal was described as deliberate and preoccupied with speculative reasoning, meekly accepting his present achievement level, lacking the skills necessary for working with adults but anxious to assist children, highly dependent upon others for support, and likely to exhibit strong emotional reactions in upsetting situations.

Stogdill (59), in reviewing the literature, found that leadership is not a matter of mere status or the possession of some combination of traits. It appeared to be a working relationship among members of a group in which the leader demonstrates his ability to carry out tasks cooperatively to successful completion. Qualities which seemed to be associated with the ability to organize and expedite this cooperative effort are: intelligence, alertness to the needs and motives of others, and insight into situations, reinforced by such habits as responsibility, initiative, persistence and self-confidence.

Gross and Herriott (17) concluded that sex, marital status, teaching and administrative experience, length of service, and courses taken in education and educational administration are not related to educational leadership. However, they discovered that professional leadership was associated with the following:

1. A high level of academic achievement in college.
2. A high degree of interpersonal skills.
3. The motive of service.
4. A commitment to spending nonschool time on job-related tasks.

Rosseau (48), in studying the relationship between administrative success and academic training and professional experience, discovered that elementary principals who exhibited a high degree of scholarship had taken a considerable amount of graduate training in educational administration and had more experience in administration tended to be more effective. A greater degree of effectiveness was not found among those who had majored in elementary education as an undergraduate; who had taken a considerable amount of graduate training in curriculum and supervision courses and in

the social sciences and humanities; or who had had a considerable amount of teaching experience.

Moore (38) studied administrative trainees selected for participation in the Cooperative Program in Educational Administration sponsored by Stanford University utilizing five of the eight test series: Miller Analogies Test, Allport-Vernon-Lindzey Study of Values, Minnesota Teacher Attitude Inventory, Public Opinion Questionnaire, and the Edwards Personal Preference Scale. The personal qualities measured by these instruments are most commonly mentioned as prerequisites for successful school administration.

He found that those who became administrators in districts other than the one in which they received training scored higher in "autonomy." Candidates still being considered for administrative positions scored significantly higher in verbal intelligence than those who were no longer being considered. When the still-being-considered group was compared with groups who had become administrators, the administrators were found to be less "aggressive," to believe more strongly that a close rapport between teachers and pupils was important in the classroom and to be much less "prejudiced" or "authoritarian" in the expression of their social values. Candidates who left the district, and in most cases, the teaching profession, scored lowest in verbal intelligence, high in the desire to establish classroom order with rigid discipline, high in "autonomy," and high in "aggression."

A second phase of the research compared vice-principals, principals and classroom teachers. No significant differences were found between vice-principals and classroom teachers. Principals were found to score

higher in "intelligence" and "exhibition" and lower in "prejudice" or "authoritarianism" than vice-principals and classroom teachers. In addition, classroom teachers indicated a need for more rigid classroom discipline and were more "aggressive" than the principals.

A third phase of the study compared administrators in small districts with those in large districts. It was observed that administrators from larger school districts scored significantly higher in "intelligence" and "affiliation." The administrators from the smaller districts scored higher on the "authoritarian" scale and higher in "deference."

Thomas (61) stated that many men and women enter the principalship, but to remain there is not so common. Those who remain seem to have certain qualities that are more than skills. They are a person's values, beliefs and purposes. He listed qualities possessed by effective principals:

1. The effective principal must have a purpose for being and the intellect to understand it.
2. The effective principal must appreciate and enjoy making decisions.
3. The principal must be just and ethical.
4. The principal must believe in, support, and motivate the other members of the organization.
5. The effective principal must cultivate the art of active listening.
6. The effective principal must be low-keyed, have a soft voice, and must control his emotions under stress.
7. The effective principal must be able to defend the system.

Rychlak (50) studied the personality of industrial leaders in an attempt to identify a general picture of leadership. He selected 84 male

managers from the New York Telephone Company to whom the following personality instruments were administered: Thematic Apperception Test, a word association test, Edwards Personal Preference Scale, the California Authoritarianism Scale, Wonderlic Personnel Test, and the Cooperative School and College Ability Test. Subjects were rated by an external observer as well as their peers relative to leadership displayed in two small group situations requiring somewhat different abilities. The results indicated that:

A liberal reading of the Edwards definition suggests the following composite picture of the sample: moderate dominance needs; a desire to work hard at a task and see it through to a finish, with slight guilt feelings and depression when not feeling up to a situation; a definite preference for orderliness and organization in daily routine; and a willingness to take orders.

The correlations with small-group performance force a rather clear split of the sample along achievement, intellectual, and dominance--aggression dimensions. The word association measure of aggression failed to predict, and the Edwards and TAT aggression measures were somewhat inconsistent. The Thematic Apperception Test achievement themes were related to leadership measures, but the Edwards achievement variable failed to be predictive.

The small group leaders appear more confident, interpersonally sensitive, and less motivated to receive or provide help per se than to direct the activities of others. . . . Dominance (to assume leadership and direct actions of others), Aggression (to criticize others publicly), and Intracception (to analyze the behavior and motives of others) were significantly related to leadership measures. Hetero-sexuality (to engage in social activities with the opposite sex, to appear attractive to the opposite sex, etc.) was also found to reach significance for Group Discussion. . . . In sum, it may be said that leaders in the highly competitive group situations were typified by dominance and aggressive needs, an achievement orientation, and good mental and scholastic ability.

Olson (44) examined leadership behavior and the dimensions of interaction between 83 randomly selected secondary principals and their work environment. The findings of this study indicated that the most effective leaders differed significantly from the least effective leaders with

respect to their interaction with their environment. The most effective leaders were significantly more congruent with their environment than the least effective leaders. The author suggests that his data support the theory that individuals perform better in an academic work setting which more closely approximates their needs. This study also revealed that the most effective leaders had personality patterns significantly different from those of the least effective leaders.

Fleishman and Harris (14) investigated the relationship between foreman behavior as measured by the Supervisory Behavior Description Questionnaire yielding scores on "consideration" (warmth and rapport between supervisor and his group) and "structure" (extent to which supervisor organizes and defines group activities and his relation to the group) and two indices of group behavior: labor grievances and employee turnover. The results of this study indicated that low consideration and high structure are related to high grievances and turnover. There were critical levels beyond which increased consideration and decreased structure had no effect on grievances or turnover rates. Increases in turnover did not occur until lower on the consideration scale and higher on the structure scale, as compared with increases in grievances. Consideration was found to be the most important factor, e.g. both grievances and turnover were highest in groups having low consideration foreman, regardless of their structuring behavior. One of the most significant results was the discovery that high consideration foreman could increase structure with very little increase in grievances and no increase in turnover.

Henry (18) reported that psychologists at the University of Chicago investigated the personality of 300 successful business executives. The following attributes were noted:

The first characteristic which was encountered might be called a strong achievement desire. That is, most of the executives had a feeling that they must do something--and not only must they do something but they must do it faster than anybody else . . . a characteristic which is closely related to the desire for achievement is a strong mobility drive. Each of the men studied felt a strong need, not only to do something, but to move upward . . . a further attitude which was conspicuously characteristic of the executive was his feeling toward authority figures--everyone from the chairman of the board to his father, the policeman on the block and other stereotypes. The individual who looked toward these authority figures as people who were "out to get him", or people who were really occupying jobs which he himself should have, seemed usually to run into difficulty on the job, either through overt resistance or in some more obscure fashion. In contrast, most of the successful executives studied looked toward authority figures as helpful controlling forces. . . . an interesting aspect of the executive's personality--one which might be considered a double-barreled characteristic--is decisiveness, the ability to arrive at a decision . . . an outstanding characteristic of the successful executive is a strong feeling of assertiveness . . . closely related to assertiveness is a general factor that might be termed apprehension, or fear of failure. This fear runs through the personality organization of the executive in varying degrees. It is a constant apprehension that all will not be the same tomorrow . . . characteristic of most of the executives studied was a strong reality orientation. This is what is usually termed "practicality" in the business situation. . . . Most traits which are characteristic of the executive are by no means traits he has acquired since he became an executive. Many of them are found in other people, in different personality configurations, and are subject to a long period of development.

Morphet and Schutz (40) conducted a pilot study based on the theory that both personal characteristics and personal interactions of an administrator in his school community must be analyzed if administrative success is to be predicted. They discovered that administrator success based on teacher rating is determined by the extent of compatibility between teacher and administrator with regard to initiating contact. If the administrator



likes to initiate first contacts, and the teachers like to be invited, the principal's chance of success is good. After the principal has been on the job for a year or two, conflict arises when there is a power struggle between principal and teachers. If the principal is to be rated as successful by teachers, the principal must either be the kind of person who takes charge of things and the teachers want strong leadership, or else the teachers are the dominant force and the principal wants to follow. For a principal of several years' tenure, teachers' opinions of his overall ability are related to the principal's capacity to establish warm and personal relationships. Although the area of affection is always important, it is especially so for principals with more seniority.

Morphet and Schutz (41, p. 20) as part of a follow-up study concluded that predicting an administrator's success is improved significantly by considering the type of district in which he works. Utilizing the FIRO-F the authors found that an administrator who wants people to feel that he is significant, competent and likeable is successful as a principal in a small district and does well as a superintendent in a population center district. As principal in a small district he is especially strong on the use of human resources and educational leadership. As a population center superintendent he is rated especially high on use of human resources, communication, problem-solving ability, organizational competence, and ability to deal with the school board. An administrator who feels that people are important, competent and likeable does poorly as a principal in a suburban district. As a superintendent, this type of person does poorly in general. His overall rating is very low, especially in the judgment of his own staff

members. His task ability is low as is his ability to deal effectively with school board members.

Evenson (12) studied leader behavior characterized by the Leader Behavior Description Questionnaire. Superintendents, principals and staff members responded to this instrument which is designed to measure the extent to which the principals "Initiated Structure" or showed "Consideration." Teachers within a given school were found to be in agreement in their descriptions of how considerate a principal should be but the staffs differed significantly from school to school. Norms for how a principal should behave with regard to initiating structure were institutional and were influenced little by the particular school of which the respondent was a member. Principals and superintendents agreed in their expectations held for the principal on "Initiating Structure." However, teachers revealed an "ideal" of less consideration than either superintendents or principals think is required. Even though there was lack of agreement between the superintendents' and the staffs' descriptions of how a principal should behave, the author concluded that the principal should not hesitate to improve his leadership skills on both dimensions, namely, "Initiating Structure" and "Consideration."

The leader behavior characteristics of elementary principals and the organizational climates of 35 randomly selected schools in which they served were studied by Wiggins (63, pp. 3-4). The principals revealed consistent similarity in their leader behavior characteristics on the basis of 15 variables. They were found to be highly task-oriented, kindly and considerate of subordinates, needing direction of superordinates but desiring independence to use the direction and support to arrive at their

decisions. Another finding of this study was that organizational climates did not change when principals were replaced. The principal's leader behavior became more significantly related to organizational climate as his length of service in the school increased. It was suggested that principals are socialized by their school districts to behave in a rational, predictable, and uniform manner.

For a period of six years, Hines (20) at the University of Florida studied the leadership behavior of public school principals. He described the effective principal as a person who demonstrated democratic behavior as he works with teachers, parents, pupils, and the community. The principal will know the school which he administers and its place in the educational system. He will be consistent; teachers will know what to expect of him. He will involve teachers, parents, and pupils in decisions that affect them. He will work with people in assessing successes and failures of the school program.

Maier and Swinerton (28) identified eight attributes of potential leaders in higher education: ability, confidence, aggressiveness, drive, enthusiasm, motivation, integrity, and consideration. The leader exhibits ability when he knows more about the tasks to be accomplished than co-workers and communicates this knowledge effectively. The leader displays confidence in himself and is self-directed and self-reliant. History demonstrates that leaders are aggressively goal-oriented instead of task-oriented. A leader has the willingness to take risks for what he believes is necessary for the institution. The leader has a high energy level, is vigorous and ambitious. He thrives on competition and is dissatisfied with his present skills. Enthusiasm is the most important trait of a leader.

To inspire subordinates to achieve beyond what they believe are their own capacities requires the leader himself to be enthusiastic about achieving goals. The leader is not satisfied with his own accomplishments, thus producing motivation for higher levels of achievement. The characteristic of integrity, which is defined as soundness of moral principles, honesty, and character, must be displayed by the leader in order to obtain respect from colleagues and subordinates. Finally, a leader must have consideration. He must respect the beliefs and values of others, especially those who may disagree with him.

Effective administration, according to Katz (23, p. 42), depends less on personality traits and more on basic personal skills, which have been identified as technical, human, and conceptual. The administrator needs:

- 1) necessary technical skill to accomplish the mechanics of a particular job;
- 2) necessary human skill in working with others to be an effective group member with a capacity to be able to build team cooperation;
- 3) necessary conceptual skill to recognize the interrelationships of various factors which will lead him to take that action which achieves the maximum good for the total organization.

The relative importance of these three skills varies with the level of administrative responsibility. At lower levels, the major need is for technical and human skills. At higher levels, the administrator's effectiveness depends largely on human and conceptual skills. At the top, conceptual skill becomes the most important of all for successful administration.

In a study of the effect of varying degrees of more democratic and less democratic principal behavior on teachers, pupils, and parents, Grobman and Hines (16, pp. 8-10) found:

. . . no difference in sixth- or ninth-grade pupil achievement in arithmetic, reading, and language in schools with the more democratic principals and in those with more authoritarian principals, when factors of sex, economic status of parents, intelligence, and time in the same school are equalized . . . Holding parental occupational level constant, pupil attitudes favor the relatively democratically administered school. . . . The more favorable parental responses and higher degree of parental participation are secured by the relatively democratic principals, except among parents with incomes under \$2,000 and grade school education . . . teacher satisfaction with human relations on the present job is higher in schools with relatively democratic principals than in schools with relatively authoritarian principals. Teachers tend to use what experts consider good or desirable practices somewhat more often in schools with democratic principals than in schools with authoritarian principals . . . the more democratic principals secure wider participation among those involved, and use a wider variety of procedures to produce change. . . . Teachers in elementary schools with democratic principals have significantly more favorable attitudes toward curriculum change than teachers in elementary schools with authoritarian principals.

Kimbrough (24, pp. 345-348) examined selected statements of behavioral characteristics and having observed them in two accounts of administrative behavior, identified these qualities as follows: interpersonal relations, intelligence, emotional stability, ethical and moral strength, adequacy of communication, and operation as a citizen. The effective school administrator promotes closeness as opposed to promoting distance between people. He helps groups organize in terms of purposes, interests and special abilities to achieve group goals. He urges the use of processes consistent with democratic values. Effective educational administrators center their discussions with people around problems about which they are seeking solutions. They are aware of special abilities of their staff members and seldom repeat mistakes. The effective school leader remains emotionally calm in stress-producing situations. He helps create a calm, collected feeling which helps a group meet and confidently analyze a crisis. The effective educational administrator searches out and follows truth as opposed to

expediency as a means of action. He is effective in communicating abstract ideas to individuals and groups. The effective educational administrator facilitates group communication and discussion and is skillful in helping groups recognize and accept points of agreement through democratic processes. He is well informed about significant social, political, and economic trends and their affect upon education.

Brandt (6) listed eight characteristics of successful administrators as follows: sincerity, empathy, open-mindedness, intellectuality, objectivity, creativity, inspiration, and a basic respect for people. The sincere administrator is committed to the task of instructional improvement, his integrity in dealing with others, and his respect for the individuality of his staff members. To be effective, an administrator must be sensitive to the feelings and problems of teachers; he must be able to place himself in the position of the teacher to truly understand the teacher's perceptions and feelings. He must be willing to listen to all sides of an issue before making a decision. The effective administrator must be knowledgeable in the areas of curriculum and personnel administration so as to provide his staff with proper guidance and instruction.

In a study by Carleton (11, pp. 198-200), 160 Montana School administrators were sampled and a battery of tests including the California Psychological Inventory, the Study of Values, and the Strong Vocational Interest Blank were administered. Each administrator supplied personal data regarding his early life, his schooling, and his professional experience in teaching and school administration. He also rated himself and later was rated by his professional staff members on the Purdue Rating Scale for Administrators and Executives. On the basis of these criteria ratings, the

upper 25 percent of the subjects (designated as "effective" administrators) were separated from the lower 25 percent ("ineffective" administrators). The general hypothesis tested in this study was that effective administrators differ from ineffective ones in terms of certain personality and personal background characteristics. The results of this research were as follows:

Using the mean scores on the Purdue Rating Scale as a criterion, it was possible to distinguish forty-two "effective" administrators from forty-one "ineffective" administrators. . . . The two categories of administrators did not differ significantly on any of the scales of the California Psychological Inventory. . . . Successful and less successful school administrators in the sample did not differ significantly in the degree to which they possessed the interest of successful city school superintendents as measured by the Strong Vocational Interest Blank. . . . "Effective" and "ineffective" school administrators in the sample did not differ significantly on most of the items relating to their early life, training, and experience. Items on which were found differences showing significance at about the 5 per cent level of confidence included: father's major ambition for son, cultural and intellectual level of childhood home, attendance at a rural (as against town) elementary school, elementary and secondary school marks, regularity of church attendance (at present), reaction to administrative jobs held, and membership in business and social organizations. Ineffective administrators indicated that they came from better homes, received better marks in school, attended church more often, and joined more business and social groups. . . . "Effective" school administrators differed significantly from "ineffective" administrators on only the "religious" scale of the Study of Values.

Utilizing the "contingency model," Williams and Hoy (65, p. 66) attempted to explore the usefulness of the theory as a guide to the study of leadership in public elementary schools. This model postulates that the effectiveness of a group is contingent upon the relationship between leadership style and the degree to which the situation enables the leader to exert his influence. Results indicated that the favorableness of principal-staff relations was a significant situational mediator of leadership

effectiveness. Elementary schools in which principals were well supported by teachers, a task oriented leadership style was related to effectiveness; however, in schools where principals were less well supported by teachers, a relationship oriented leadership style was associated with effectiveness.

As part of his research, Hightower (19, p. 90) studied the effectiveness of secondary principals from 16 of the largest 22 school districts in Iowa. He utilized the FIRO-B as a measure of interpersonal relationships and asked teachers, colleagues, and superintendents to judge the principal's effectiveness using a graphic rating scale. There was a significant correlation between the principals' scores on the expressed affection dimension of the FIRO-B and initiating structure which was utilized as a criterion of communication and leadership. Expressed affection scores of principals were significantly related to the criterion of planning at the .01 level. The principals' scores in the area of wanted affection and the perceptions of instructional leadership effectiveness were significantly related. Principals' wanted affection scores were also significantly related to the criterion of planning effectiveness. Scores on the FIRO-B expressed control were significantly correlated with the superintendents' ratings on the organizational maintenance criterion.

#### Administrator Selection

Miner (36) studied characteristics that might be used in developing selection systems for administrative positions in school districts. Various administrative positions were selected in large, medium, and small school districts. The following questionnaires and/or instruments were administered: School Administrator Evaluation, 40-item vocabulary test,



Miner Sentence Completion Scale (MSCS) (designed to measure managerial motivation), Tomkins-Horn Picture Completion Test designed to measure motivation to engage in physical work, social motivation, inner life cathexis, and conformity. Age and employment history were also utilized as possible predictor variables. The author concluded that the correlations between age and ratings were consistently negative. It seemed appropriate to recommend, on the basis of the data, that a minimum cut-off score or some measure of general intelligence or verbal ability be used in selecting individuals for positions in educational administration. There appeared to be some indication that using a managerial motivation index was helpful in the selection process. Six of nine measures derived from the MSCS yielded significant findings. The implication of this research was that selection should be carried out with reference to the value and reward structure of a given school district. It was the author's conviction that successful selection necessitated the analysis of individual school districts, that administrators should be selected in terms of the known needs of a specific organization.

In a study by McIntyre (31, p. 2), it was pointed out that the behavior of school administrators is shaped by both personal and situational determinants. However, at the time of admission to a preparation program, or at any time at which the specific position that the individual is going to fill is unknown, the personal dimension must be weighed more heavily. At such an early stage, the preparing institution is selecting prospective administrators in terms of their adaptability to a wide range of situations. Therefore, selection for this phase of the program should concentrate more in deleting the least likely to succeed, rather than selecting the most

promising. McIntyre (31, p. 5) concluded that situational variables have much to do with the problems of predicting human behavior. The question is not one of predicting to a global concept of effectiveness, but rather one of predicting to a behavioral definition of effectiveness in a certain setting under certain circumstances. Since personal variables are also powerful determinants of behavior, the task is one of attempting to predict how an individual would perform in one or more situations. The author suggested that efforts be devoted to the study of predicting behavior under various relatively specific circumstances.

A committee appointed by the American Association of School Administrators (1, p. 27) indicated that either traits or performance may be utilized in selecting those individuals who are most likely to succeed as school principals. Correlations between various personal trait measures and subsequent judgments of success have been low, according to many researchers. The reasons for this are not hard to find. Definitions of success may vary in precision. It is difficult to define traits in operational terms to facilitate objective measurement. Distinguishing cause-and-effect relationship from mere association between a trait, or a configuration of traits, and effective administrative behavior represents yet another problem.

Schilson (53, p. 66) lists the following criteria for selection of elementary principals:

1. Mature judgment.
2. Ability to work well with others.
3. Evidence of leadership ability.
4. Above average intellectual ability.

5. Ability to communicate effectively.
6. Sound health or the physical stamina and ability to stand up under varied pressures and demands.
7. Dependability.
8. Ability to express a philosophy of education that will provide a framework in which the principles of American Democracy will be perpetuated in the school experiences of every child.
9. Academic qualifications for certification as an elementary principal.
10. Compassion for and understanding of children in their various stages of growth and development.
11. The capability to conceive and foster creativity in working with children and adults.

Buckley (8, pp. 361-362) suggested six ways of improving the process of selecting urban school administrators:

1. An Office of Executive Selection should be established to identify those administrators capable of serving the school system best.
2. The school system should establish effective and systematic liaisons with administrator training institutions throughout the country.
3. Each person presently in an administrative and supervisory position should fill out a job description form such as the Executive Position Description Questionnaire for the purpose of determining how an individual perceives his job.

4. Each employee expressing a desire to be considered as a candidate for an administrative position should be tested and allowed to participate in training programs.
5. Each applicant should be required to fill out an application form that provides an opportunity for the candidate to reveal his strengths and weaknesses in his skills, behavior, characteristics and experiences.
6. Each potential administrator should be involved as a participant in a well-organized training program conducted by the Office of Curriculum Development and the Office of Public Relations.

In a study by Featherstone (13, p. 155), it was stated that most candidates for principalships in Ohio cities are selected on the subjective judgment of the superintendent, with little use of objective data such as college credentials, and without consultation with other professionals. Superintendent selection was the most frequently employed technique for selecting elementary principals in Ohio cities. Superintendents seemed to consider the selection of candidates as a task which was expected of them. The selection procedure usually included an examination of the candidates' college credentials, but the superintendent's knowledge of the applicant was generally the major selection factor, especially if the candidate was from inside the system.

The three most important qualifications which emerged in a study by Lindley (25) were: knowledge of the administrative process, breadth of general education, and ability to work well with others. The superintendents in large school districts reported the following technique presently being used in selecting administrative personnel:

1. Review of training or formal college preparation.
2. Review of recommendations or credentials.
3. Review of previous experience.
4. Written objective tests.
5. Written essay tests.
6. Oral interviews.
7. On-the-job performance evaluations.

McIntyre (30, pp. 33-34) suggested that the best predictor of one's future behavior in a given situation is his present and past behavior in similar situations. Prior to recruiting and selecting an individual, the situation and the behavior desired must be identified. The next step is to find out whether the candidate has had experience in such situations and how he performed. The best procedure is to develop an interview guide containing the questions dealing with the behavior valued. The author concluded that school districts interested in developing a sound procedure for identifying, training, and selecting talent follow a five phased approach:

1. Initial identification of potential candidates for administrative and supervisory positions through extensive publicity and an appeal to many sources of recommendations.
2. Selection of a relatively large group of candidates for training and further screening, the training to consist largely of simulations and laboratory exercises designed for the dual purpose of providing instructional leadership training and placing candidates in situations simulating the "real thing" in order to study their behavior.

3. Further screening, based on the preceding phase, followed by on-the-job experience as acting principal of a six-week summer school.
4. Comprehensive summer seminar on school administration.
5. One year's internship for each candidate, consisting of direct experience in elementary schools, secondary schools, the central office, and community agencies.

According to Monahan (37), the process for selecting school superintendents was based primarily on impressions obtained by screening committees, community members, teachers, parents and students. Determination as to whether a superintendent applicant possessed the desired qualifications rested upon an analysis of recommendations, both written and verbal. No attempt was made to utilize more objective techniques as a measure of success potential.

Seeley and others (57) suggested that a weighting chart should be used as part of the selection process to relate the evaluation of the candidate's qualifications to the relative importance of each qualification and to help pool or average the judgments of two or more people involved in evaluating the candidate's qualifications. The rating scale should list qualifications, weight assigned to each qualification and a five point scale rating from one to five, very poor to superior. The authors indicated that the advantage of the weighting chart helps to add precision to the identification of qualifications, compels adherence to established priorities and brings balance and perspective to the evaluation of a candidate. The major disadvantage is the possibility of being trapped in the mechanics and either selecting or rejecting the wrong person.

Personal characteristics of individuals identified as mobile, non-mobile, and immobile--those who aspired but were rejected for advancement were studied by Presthus (45). Personality characteristics of mobiles and nonmobiles were not significantly different. Subjects who sought advancement but didn't get it viewed moving upward as a means for gaining greater prestige, authority, and responsibility. Mobiles saw advancement as a means of improving their income and contributing to the field of education. Those selected for advancement tended either to identify more with the value of the organization or the need of the people in the organization than did those not selected. Nonmobiles viewed advancement as disruptive to established personal ties with students, teachers, and family or as too demanding or uninteresting in terms of responsibilities.

Lucio and McNeil (27, pp. 72-73) surveyed policies and procedures for selecting supervisory personnel and found that the selection process could be significantly improved by developing and following specific procedures and standards. The authors suggested the following as future selection procedures:

1. Personality assessment. Objective instruments will be constructed for the assessment of personality which will minimize subjective aspects of the oral interview. Efforts to predict one's compatibility with others will continue.
2. Advisory assistance. Emphasis will be given to a professional advisory committee with wide representation from groups concerned. The committee will be expected to be guided by clear definitions of the position and the requirements necessary for the job. The training of those who sit in judgment will be undertaken.
3. Definition of the position and its role. Stereotyped ideas of qualities or talents required will diminish. Firsthand observations of the supervisors actually performing the duties of the position will provide a sharper understanding of the competencies presently in use and those which should

be in use. Knowledge of the psychological atmosphere in which the candidate will be working will be considered necessary in making placement.

4. Classification of prospective candidates. Classifying a person's potential entirely on the basis of his previous experience will lose favor. Initial "rotating" opportunities in which teachers and supervisors spend some time in many situations will be used to expose talent. There will be more frequent promotion of those who are not fully prepared for the immediate job but can grow into and beyond it, rather than appointment of those whose growth is already at its peak.
5. Statistical measures. Numerous statistical measures of the results of the candidate's effort will be sought. Acceptance of the standards of performance for the classroom as well as identification with purpose will become more important indicators of ability. Assessment of the prospective supervisor's precise knowledge of where and why things occur as they do will be systematically tested.
6. Present and future requirements. Assignment of supervisors will depend upon the life history of the district. A new and expanding district will be sure to count among its supervisory staff those who daringly give direction and are able to build a common point of view among the teachers. Older established districts will want innovators to balance conservative and loyal supervisors who defend the system's traditional values. Selection will be in accordance with the long-range aspirations of the school, making possible the attainment in the future of that which is excluded in the present.

According to Stout (60, p. 38), the process of selecting educational administrators requires thoroughly searching the applicants' backgrounds, using simulation activities, interviewing under stress and nonstress conditions, and collecting a relatively large sample of the applicants' written work. He suggested a list designed to assess individual behavior as follows:

1. Educational Perspective. We are aiming at the recruitment of persons who have a sensitive and articulate educational perspective. We are looking for persons who can make administrative decisions which are based on their commitment to, and understanding of, educational processes and who have a



demonstrated ability to create and manage the structures to transmit ideas and/or influence behavior.

2. **Activist Interest.** We continue to aim at the recruitment of leaders of informal activist and probably community based groups. There appear to be three leadership ingredients that are important among such activists: a) such informal groups have reform strategists who develop alternatives to the existing way of doing business; b) among the leadership of such informal activist groups are to be found persons capable of defining cultural norms; This process of norm definition builds pressure for the reformation of institutions by identifying the problems which are deserving of immediate attention; and c) among the leadership of informal activist groups are to be found persons capable of "feeling mobilization." This task of mobilizing feelings and focusing energies on the change process is essential to the reconstruction of the school system.
3. **Formal Organization Skills and Experience.** The most important aspect of formal organization skill or experience for the nominees to the Administrator Preparation Program is an ability to think in systemic terms, and to approach formal organizations with a reconstruction more than an efficiency mentality.
4. **Intellectual Attributes.** We aim at the recruitment of persons who can demonstrate substantial intellectual skills in both conceptual synthesis and the treatment of detailed technical information. At least the bachelor's degree is an academic prerequisite for admission.
5. **Interaction Skills.** We are aiming to recruit persons who have a high tolerance for ambiguity and an ability to establish a close teamwork relationship with others in the context of both formal and informal organizations
6. **Race and Sex.** We are aiming at a 4-4-2 racial mix (four Black, four Brown, two Anglo). We are also aiming at the recruitment of perhaps three women in next year's class.

According to Byham (9, pp. 150-151), it is a difficult task to decide whom to promote to managerial positions. Previously developed techniques for assessing management potentials have been inadequate. Batteries of written tests cannot assess the way in which a person relates to other people and supervisors' ratings can be highly biased. Increasingly, business

and industry have utilized the corporate assessment center approach as a basis for making promotion decisions. This procedure simulates the type of work situation with which a man would be faced if he were moved up and gathers information about how well he will function prior to the possible promotion. Specially trained managers and in some cases psychologists assess the candidates for promotion. Selected groups of men go through a series of standardized exercises such as management games, in-basket tests, and leaderless discussion sessions, while their behavior is observed and evaluated. This method not only identifies the men most likely to succeed but spells out the individual deficiencies of each candidate and suggests guidelines for management to use in developing him. These reports have proved to be remarkably valid. Longitudinal studies of thousands of employees assessed over the last few years indicate that this method of appraisal is much more accurate than traditional assessment procedures.

McIntyre (32, p. 46) suggested that the following guidelines be used in selecting elementary school principals:

1. Describe the job to be filled. Get clearly in mind the role expected of the principal by the superintendent, the building faculty and the community to be served. This might seem unnecessary, but it is important for two reasons: a) situations vary so much in different schools, even in the same system, that role expectations for the principals are quite different; and b) expectations for principalships are generally so vague as to leave the newly appointed principal to grope his way through the haze to his own definition of the job. In the past few years a new injunction, "Be an instructional leader!" has only added to the confusion.
2. Set up standards for selection. What competencies are going to be considered, and how much weight will be given to each one? What cut-off points will be established? Teachers and other qualified personnel could well participate in determining the standards to be used in appraising candidates.

3. Locate outstanding prospects. The accomplished GASers (those individuals who exhibit behavior designed to get the attention of their superiors; however, the behavior may not be related to competency in the principalship) will be well known by principals and supervisors, but don't fail to beat the bushes for other good prospects in the local schools. Potential candidates in other systems can be located through placement bureaus and through individual professors who train principals and who work closely with school personnel in the field.
4. Get routine information. In addition to credentials and transcripts, a biographical information blank should be completed and submitted by each candidate. All routine information should be secured in this way, rather than in interviews or other personal contacts.
5. Appraise each candidate's fitness for the position. This is the crucial step. It should involve the following activities:
  - a. Get the judgments of qualified persons with whom the candidate has worked. Except where the writers and their meanings are well known, letters of recommendation, as Sam Goldwyn said of oral contracts, are not worth the paper they are written on. It would be much better to talk personally, or at least by telephone, with several persons who are in a position to make helpful comments.
  - b. Place the candidate in situations in which behavior relevant to the principalship will be revealed. Individual and group interviews and situational performance tests of various kinds, if skillfully conducted, can make significant contributions. Observers or interviewers should be trained and rating scales should be carefully constructed or the results will appear to possess more validity than is actually the case.
  - c. Use appropriate written tests. All test information that is already available in colleges or elsewhere should be considered for what it is worth. Tests of mental ability might be particularly pertinent, along with tests of general knowledge, professional knowledge, and ability to communicate in writing. Inventories of interests, personality, values, and attitudes should be approached with caution if considered at all; it would be highly questionable to administer such instruments in connection with the employment process. As a general rule, tests are more useful in screening out the extreme lows than they are in identifying the best prospects.

Mandell (29) described various methods used by the United States Civil Service Commission to select supervisory personnel:

1. Supervisory Judgment. This test consists of problems in two broad fields--employee-supervisor relations, and personnel administration from the viewpoint of the supervisor . . . Satisfactory results have been obtained in studies of the relationships between scores on this test and supervisory performances.
2. Reading Comprehension. The factors involved in reading comprehension seem to be related to successful performance as a supervisor in the trades and clerical fields. It is suggested that the reading materials for such items come from either the field of supervision and management only, or from that field, and in addition, from the substantive field in which the supervisor will work . . .
3. Agency Organization, Personnel, and Policies. This test attempts to measure the candidate's factual information regarding the organization structure, the key personnel, and the basic operating policies of the organization in which he works . . .
4. Subject-Matter Test. The production responsibilities of the supervisor are such that he has to have a substantial amount of knowledge of the field in which he is supervising . . . at the first, second, and third levels of supervision, human relations and organizing skill have to be accompanied by technical knowledge. If this premise is correct, and studies by life insurance companies and the Air Force indicate that it is correct, a subject-matter test would seem to be an appropriate part of a supervisory selection battery.
5. Interest Inventory. Two types of interest patterns, one negative, and one positive, seem to be related to supervisory success. The negative aspects relate to interest in the technical aspects of the work. Professor Strong's work on the interests of administrators indicates, and this can be extended to supervisors, that those who have high interest levels in their own field, if it is a technical field, tend to be poorer administrators. Conversely, those who in a technical field have a high level of interest in people minded occupations, such as personnel work . . . tend to be better administrators.
6. Interviews. Three types of interview methods have been developed recently, all of which seem useful for supervisory and administrative selection. The interview method developed by the Army for officer selection for the post-war Army

involves the use of standard and follow-up questions. Much of the validity of this interview is probably due to the rating forms used. . . . The first part of the rating involves the use of a three-point scale on a number of specific factors demonstrated during the interview; the second part involves underlining specific descriptive words, both positive and negative, which describe the performance of the candidate during the interview; the final part involves an overall judgment of the rater on a few important factors.

7. Analysis of Organization Problems. This is a nonfactual written test which attempts to measure the candidate's understanding of broad administrative problems, rather than his knowledge of specific administrative techniques. Many of the questions present administrative problems in such areas as line-staff relationships, central office-field office relationships, the organization problems of the office of the bureau chief or president of a company, and so forth. The task of the candidate is generally to determine the reason for the existence of a problem, to anticipate what problems may accompany a particular situation, or to solve a problem.
8. Interpretation of Data. This test, which requires the candidate to evaluate the soundness of conclusions based on statistical tables and charts . . . It seems to evaluate an important administrative ability; namely, the interpretation of statistical reports from the point of view of the administrator rather than the statistician.
9. General Information. The general information of the administrator seems to be important to his success. The Cooperative Test Service test in this area would seem to measure aspects of knowledge and interests which are important in administrative performance.
10. Evaluation of Statements. . . . The subject is given a number of statements and is asked to read the statements and determine into which one of the following categories it falls: a) a striking or significant statement; b) a commonplace or obvious statement; c) an absurd statement; d) a tautological statement, i.e., the latter part repeating the thought of the first part; or e) a joke or ludicrous contradiction. . . . It is the writer's theory that this is a test of sophistication as related to interpersonal relations, and that it measures in objective form an important part of what is usually included in the definition of social intelligence.
11. Personnel Analysis. This test was developed to measure objectively the insight into personality characteristics which is required of all staff people, as well as supervisors and administrators.

12. Vocabulary. The contribution of a vocabulary test to administrative selection varies with the nature of the administrative job and the other written tests that are included in the examination. If a highly verbal test which also measures other aspects of administrative ability is included in the examination, it is doubtful that a vocabulary test would add an appreciable amount to the final examination results. If the contents of the written test are selected on the basis of a factor approach, then it is highly probable that a vocabulary test will contribute to selection for these positions.

After five years of experience with a program in educational administration, McIntyre (33, pp. 36-37) concluded the following:

1. A measure has not been developed that will provide adequate information for the selection process. Presently, individual judgment and several of the best known techniques must be utilized.
2. Letters of recommendation are practically worthless.
3. The brief interview is ineffective. The validity of interviews can be increased through the use of multiple ratings, well planned and closely controlled situations, and training of interviewers. Independent observations of candidates by raters tend to approximate one another more closely as the observation period increases.
4. Evidence suggests that Guilford-Martin Inventories and the Minnesota Teacher Attitude Inventory may be effectively employed to screen out certain candidates.
5. Results of two or three tests designed to measure intelligence should be employed in the screening process.
6. It is suggested that a multi-factor selection process tailored to the individual institutional conditions be utilized to reject candidates who fail to measure up to more than one of the following:
  - a) score above 55 on the combined percentile scores on the Miller

Analogies, the Cooperative English C 2, and the Watson-Glasar Critical Thinking Appraisal; b) place above the 25th percentile on the Peer Acceptance Inventory; c) place above the 25th percentile of the group on staff ratings of the end of the term; d) place above the 25th percentile on a sociometric device designed to get student choices of "best principals."

Various techniques designed to select potential administrators have been identified and described by Neagley (42, pp. 22-29):

1. Application Forms. Generally, application forms fail to gather meaningful biographical data. Personal history records can be used to predict success. Leadership studies indicate that the chances for administrative success are best for those who have the following background characteristics: a) married happily; b) better than average curricular and extra-curricular record in school; c) brother or sister, but not too large a family; d) raised in a small town, nonfarm home; e) graduate of a school of moderate size; f) slightly better than average for his age group work record.
2. Letters of Recommendation. Letters of recommendation are of doubtful value unless the evaluator knows the writer personally. There is some evidence to indicate that opinions based on recall of a candidate's past performance are more accurate when standardized questions are used.
3. Aptitude Tests. Leadership success is most closely related to mental abilities. However, no single trait has been identified which is related to general leadership success. Research seems to

suggest that intelligence slightly above average is sufficient, and an unusually high intelligence, unless coupled with good emotional control and high social adaptability, can be harmful to successful leadership.

4. **Personality Tests.** Research studies indicate that personality measurement is relatively ineffective in identifying leaders. The Bernreuter Personality Measure indicated that leaders are better adjusted, more dominant, and more self-sufficient. It is doubtful that personality tests predict beyond the situation in which they are given.
5. **Sociometric Techniques.** The Army found that senior officers, though unable to define success, could agree in identifying successful officers. It was found that the nomination technique was a better measure of leadership than grades, instructors' ratings and officers' ratings.
6. **Situational Tests.** This technique includes tests which demand the same level of functioning that will be required of the individual in the real situation. The situational tests that may hold promise for the selection of educational leaders are: interaction interviews, group interviews, psychodrama, leadership sample and leaderless group situation.
7. **Interest and Value Tests.** The Strong Vocational Interest Inventory has been shown to predict several criteria of leadership as well as clinical judgments made in more comprehensive administrative assessment programs. The Allport-Vernon Scale was found to differentiate between good and poor groups of Federal government



administrators and showed positive relationship between scores on this test and success in school administration.

In conclusion, Bridges and Baehr (7) stated the following:

The procedures for selecting educational administrators are at a crossroad. Unless school officials and professors of educational administration seize the initiative in developing valid means for identifying effective school executives, the noble effort to eliminate discrimination against minorities may inadvertently lead school districts to abandon the use of personnel tests. This action could seriously undermine current and future efforts to achieve quality education. The challenge to research is to discover selection procedures which are non-discriminatory and foster excellence in administration.

### The Firo Theory

The Fundamental Interpersonal Relations Orientation Theory was developed by William Schutz and has been applied to research in understanding personality dynamics, marriage counseling, family therapy, sensitivity training, encounter groups, and other forms of group counseling or psychotherapy. This theory holds that persons typically orient themselves toward one another and that knowledge of these orientations allows for considerable understanding of individual behavior and the interaction of people. Interpersonal refers to relations that occur between people and that an individual's behavior is affected by the presence of other persons. Each person has a need to establish and maintain a satisfactory relation with other people with respect to interaction and association. Failure to satisfy this need leads to feelings of anxiety within the human organism. This need is composed of three separate dimensions, namely, inclusion, control and affection (54).

The FIRO-B survey questionnaire was developed to measure how an individual acts in interpersonal situations and to predict interaction between

people. These scales are designed for individual analysis as well as for measuring characteristics in such a way that scores of two or more individuals may be combined to predict their interaction. It is possible to assess the behavior an individual expresses toward others (e) and the behavior he wants others to express toward him (w). The interaction of two people may be evaluated through the fit between what one person wants and the other person expresses (49).

The interpersonal need for inclusion is the need to establish and maintain a satisfactory relationship with people with respect to interaction and association. A satisfactory relation would include a comfortable relation with other people ranging somewhere between initiating interaction with everyone to not initiating interaction with anyone. The need to be included suggests that the person has a desire to be attended to. Personal fame frequently associated with politicians, actresses, and others in the public eye is primarily inclusion. Behavior related to belonging to social organizations for its prestige value is also associated with the need for inclusion.

The interpersonal need for control refers to the decision-making process between people. It is a desire for power, authority, and control over other individuals. Acquiring money and political power is a method of gaining control over others. Proper performance of one's job, or rebelling against authority by not doing it, is a primary outlet for control feelings. Control is manifested by behavior involving influence, leadership, power, coercion, authority, high achievement, and independence as well as dependency, resistance, and submission.

The interpersonal need for affection refers to the establishment and maintenance of close personal feelings between two people. It can occur only between pairs of people at any one time. Affection can be directed toward parents, peers, or children figures. Establishing an emotional closeness involves a desire and willingness to reveal innermost anxieties, wishes, and feelings. Some terms associated with positive affectional relationships are "love," "like," "emotionally close," "positive feelings," "personal," "friendship," "sweetheart." Terms denoting a lack of affection are "hate," "dislike," "cool," "emotionally distance."

Table 1 summarizes the six scales of the FIRO-B.

Table 1. Names and symbols for FIRO-B

|           | Expressed behavior  | Wanted behavior   |
|-----------|---|---|
| Inclusion | I make efforts to include other people in my activities and to get them to include me in theirs. I try to belong, to join social groups, to be with people as much as possible. | I want other people to include me in their activities and to invite me to belong, even if I do not make an effort to be included. |
| Control   | I try to exert control and influence over things. I take charge of things and tell other people what to do.   | I want others to control and influence me. I want other people to tell me what to do.   |
| Affection | I make efforts to become close to people. I express friendly and affectionate feelings and try to be personal and intimate.   | I want others to express friendly and affectionate feelings toward me and to try to become close to me.                           |

Measurement of FIRO-B reliability consisted of tests for internal consistency and stability. Since the scales of the FIRO-B are Guttman type, reproducibility is the appropriate measure of internal consistency. The usual criterion for reproducibility is that 90 percent of all responses are predictable from knowledge of scale scores. The reproducibility for all scales is very high and consistent with .94 for five of the scales and .93 for expressed control utilizing mostly college students and a small population of Air Force personnel as subjects. The coefficient of stability, i.e., correlation between test scores and scores on a retest after a time lapse average .76 with a low of .71 for control wanted and a high of .82 for inclusion expressed (55, p. 5).

Accepting the underlying theory of Guttman scales, content validity is a property of all legitimate scales. Concurrent validity was established on the FIRO-B through a series of studies on political attitudes, occupational choice, and conformity behavior. Results indicated that the coefficient of reproducibility was at least .91 or that there was a significant relationship between the scales of the FIRO-B and similar elements measured by these studies. Schutz also presents evidence of predictive and construct validity through a series of studies referred to in his book (54, pp. 66-77).

The intercorrelation between FIRO-B scales was obtained through a study of 108 college students and is shown in Table 2. Schutz (54, p. 80) indicates that:

. . . there is a significant correlation between e and w for inclusion and affection, and a somewhat smaller significant correlation between the scales of I and A. The correlation is small enough so that predictions about specific individuals would be somewhat hampered by reproducing the number of scales. It is

important to be aware of the fact that FIRO-B contains nonindependent scales, but it seems at this point to be advantageous, from the standpoint of the theoretical meaning of each scale, to retain them in this form.

Table 2. Intercorrelations among FIRO-B scales

|                | I <sub>e</sub> | I <sub>w</sub> | C <sub>e</sub> | C <sub>w</sub> | A <sub>e</sub> | A <sub>w</sub> |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| I <sub>e</sub> |                | .62            | .15            | .12            | .45            | .31            |
| I <sub>w</sub> |                |                | .10            | .13            | .49            | .48            |
| C <sub>e</sub> |                |                |                | .25            | .17            | .00            |
| C <sub>w</sub> |                |                |                |                | .02            | -.15           |
| A <sub>e</sub> |                |                |                |                |                | .70            |
| A <sub>w</sub> |                |                |                |                |                | N = 108        |

In 1960, Borko (5) stated that the reviews of the FIRO-B test were interesting and that the validation data available on the instrument looked promising. He indicated that the decision as to whether the test was a significant attempt at system building or a premature and pretentious effort would, in part, be determined by the quality and quantity of the research it stimulated. He gave the author credit for trying to derive a theory of interpersonal behavior that was based on testable hypotheses. He suggested that the test deserved to be used and evaluated by other researchers in the behavioral sciences.

In 1972, Bloxom (4, pp. 78-79) reviewed the FIRO-B in The Seventh Mental Measurements Yearbook and indicated that validity studies suggest that the subscales of the test are related to nontest interpersonal behavior as

well as other personality measures. Scale scores were found to be correlated with rated effectiveness of supervisors, production of good ideas in brain-storming groups, rated creativity, freshmen grades, and diagnosis of schizophrenia. The number of strengths of these relationships was not large enough to validate the use of FIRO-B for counseling and guidance, but they indicated that it is definitely a worthwhile instrument for research.

Ryan's (49, p. i) initial reaction to the FIRO-B was to reject the FIRO-B survey questionnaire as a "simple-minded" approach to personality measurement while recognizing the patient and scholarly effort by Schutz in developing the manual. However, as he became better acquainted with the results of using the test his opinion changed:

I administered the test to myself, and apologetically, to some friends. Somehow, the test revealed significant information about each of us. I was surprised but still skeptical. I continued administering the FIRO-B--and I have never stopped doing so. My skepticism is gone. I am not only convinced that the FIRO-B measures significant variables, but also that it does so very well. The more I use it, the more impressed I become with its value, both as a clinical and research tool.

Ackerman (2, p. 360), reviewing FIRO in A Three Dimensional Theory of Interpersonal Behavior, stated that the study was ambitious, endeavoring to present a theory of interpersonal behavior consistent with the psychodynamic view of personality. The methodology was interesting; however, there were some weaknesses in the area of maintaining the relations of part phenomena to the whole, and in the area of correlating the theory with clinical insights. The ultimate value of this approach will be determined through future experience.

### Compatibility

Schutz (54) reported the results of several compatibility studies. One such study explored the relationship between the compatibility of two persons and their preference for continued personal contact. Subjects of this study were 33 members of a college fraternity from Massachusetts Institute of Technology. Subjects were asked to select roommates and traveling companions. They were administered a sociometric questionnaire as well as the FIRO-5B3 after which three types of compatibility were determined. Results indicated that there was a significant relationship between compatibility and roommate choice, predominately in the area of affection. Likewise, a significant relationship was found to exist between compatibility and selection of a traveling companion, especially in the control area.

Another study (54) was designed to research the relationship between compatibility and productivity. Approximately 100 Harvard University freshmen were selected as subjects for this study. Subjects were divided into overpersonal compatible, underpersonal compatible and incompatible groups based on their performance on the Scholastic Aptitude Test and FIRO-1. Each group was then assigned four objective tasks: toy, concept, game, and game contest. Results of this experiment showed that overpersonal compatible groups were significantly more productive than incompatibles.

The attitudes of principals as related to the selection of teacher candidates were studied by Merritt (35). He found that principals preferred to employ individuals as teachers who possessed attitudes similar to their own. They did so when candidates had either high or low qualifications. Principals demonstrated a greater attraction for the highly

qualified candidates only when they shared their attitudes. Indeed, principals showed greater attraction to poorly qualified candidates with attitudes similar to their own than to highly qualified candidates with dissimilar attitudes. The results of this research suggested that compatibility of attitudes between principals and teacher candidates is an important factor in the imprecise impressions which interviewers form of candidates. The author concluded that educational attitudes have significant effects on the attractiveness of teacher candidates.

Rosenfield and Jackson (47) investigated the effect of similarity and divergence between personality traits of interacting individuals upon their attraction to each other. Friendship choices and similarity scores on "Security," "Sociability," and "Ascendence" were obtained for all pairs of 36 female employees of a utility company. It was found that there was a greater frequency of friendship choices between individuals who were more alike on any given trait and between those who had a greater number of traits in common.

Thirty subjects were asked by Wright (66, p. 135) to rate one another on various personality traits including preference for structured situations and intimate involvement in interpersonal relationships. He concluded that a comparison of formality and intimacy scores with their sociometric choices showed that subjects chose others who were low on formality and high on intimacy regardless of similarity. Correlations with other traits suggest that high formality subjects are insecure in face-to-face contact and prefer highly structured situations as a means of keeping their interpersonal relationships safe and manageable, while high intimacy subjects have a highly developed social interest.



Schutz (56, p. 457) studied the concept of compatibility as it related to productivity of a work group:

1. Group members have certain specific configurations of personality patterns, one of which is a compatible pattern.
2. On tasks which require a minimum amount of cooperation and which occur in a situation with a minimum amount of time pressure, the group will be more productive than a group that is not compatible. Compatibility has a greater affect upon productivity as the amount of cooperation for the task is increased and the time pressure in the situation increases.
3. A compatible group is more capable than an incompatible group to elect the man the members privately feel is most competent to the position where this competence may be best utilized.
4. A compatible group is more capable than an incompatible group to use the resources of its members regarding the members' abilities either by placing the most able men in positions of authority or placing someone in authority who will allow the high-ability men freedom of expression and an appropriate amount of influence on the groups' performance.

The hypotheses that mutual friends have similar personality profiles and significant positive correlations on some of the separate personality characteristics making up the profile were tested by Izard (22, p. 51). Mutual "best" friends were determined by a sociometric procedure, and personality characteristics were measured by the Edwards Personal Preference Scale. Utilizing analysis of variance, personality profiles showed that pairs of friends were significantly more similar than randomly assigned

pairs. Significant intraclass correlations among friends on "Exhibition," "Deference," and "Endurance" measures were found. No significant correlations were in evidence among the random subjects.

Mendelsohn and Rankin (34), utilizing the FIRO-B as a compatibility measure, studied clients' perceptions of the relationship and evaluations of the counselor and the usefulness of counseling. Compatibility was found to be a poor predictor for male clients but an excellent one for females. Compatibility in the control need area was related positively to outcome, compatibility in the inclusion and affection need areas was related to negative outcomes. The global compatibility measure yielded no significant correlations.

In a study by Moos and Speisman (39, p. 195), they attempted to predict the productivity of compatible and incompatible, two-person groups. One hundred twenty subjects were initially tested with the FIRO-B, the CPI Dominance scale, the Interpersonal Check List, and a vocabulary scale. Utilizing these three personality tests, role and personality, compatible and incompatible, same-sexed, two-person groups were formed. These groups were given a simple laboratory task to solve. The authors concluded that compatible groups outperformed the incompatible groups, with reference to the total moves toward completion of the assigned task. However, the measure of time to complete the task did not operate as a reliable predictor.

The compatibility of therapists and patients in a mental hospital and treatment effectiveness was studied by Gassner (15). FIRO-B scores were used to assign high- and low-compatibility patients to each of 24 therapists. High compatibility matched patients were found to have a significantly more favorable view of their therapists after 3 and 11 weeks of

interaction. However, therapists did not prefer relating to their high-compatibility over their low-compatibility matched patients. No significant difference was noted with reference to the amount of behavioral change found in the high-compatibility, low-compatibility, and untreated control groups. The authors noted that the use of such matching procedures promotes a higher level of interpersonal attraction but the significance of therapist-patient attraction for treatment effectiveness remains to be demonstrated.

Sapolsky (52) examined the effects of patient-doctor compatibility, as measured by FIRO-B, upon the outcome of hospital treatment and upon perceptions developed of each other in the dyadic relationship. Patient-doctor perceptions were determined by administration of the Semantic Differential Scale. Contrary to the results reported by Gassner, this author found that the degree of compatibility existing between the patient and doctor was positively correlated with the outcome of treatment. This effect upon outcome of treatment seemed to have occurred through the differential effect the compatibility variable had upon the way the doctor was perceived by the patient.

The relationship between the principal and curriculum coordinator as related to the successful adoption of innovations in schools was studied by Wiener (62). Principal-curriculum coordinator compatibilities were determined from FIRO-B scores. The author discovered that there was a significantly greater principal-curriculum coordinator compatibility in the areas of control and power among innovative principals. It was further concluded that:

. . . high expressed control needs on the part of innovative principals suggests that a school district in search of people with a potential for bringing about innovative success might want to consider principalship candidates with high interpersonal needs in this area and test further for compatibility with the curriculum coordinator on Originator and Reciprocal Control dimensions . . . the innovative principal will be more effective if he is permitted to function in an autonomous atmosphere so that he, rather than the curriculum coordinator, may initiate action in his school.

The influence of need similarity, need compatibility, and need incompatibility on interpersonal selection was examined by Rychlak (50). He found that "Affiliation" as measured by the Edwards Personal Preference Scale was positively related to being selected as a potential employee. "Deference" was negatively related to being selected as a most likeable neighbor. Subjects high in "Nurturance" were more likely to choose others with high needs for "Succorance" as neighbors. Those subjects evidencing a high need for "Exhibition" were more likely to reject others as possible employees on the grounds of their low need for "Exhibition." Finally, subjects who needed order preferred having a boss with a low need for change. On the other hand, subjects were prone to make the opposite discrimination when choosing a neighbor.

Byrne (10) discovered that a "stranger" who is known to possess attitudes similar to those of the subject was better liked than a "stranger" with attitudes dissimilar to those of the subject. The "Similar Attitude" group rated the "stranger" significantly higher than did the "Dissimilar Attitude" group on intelligence, knowledge of current events, morality, and adjustment. A "stranger" who was known to have similar attitudes on important issues was rated significantly more positively with respect to

personal feelings, his morality, and his adjustment than a "stranger" possessing dissimilar attitudes.

In a study by Banta and Hetherington (3), they found evidence for similarity of needs in mate and friendship selection, but no consistent evidence for complementarity. Engaged couples were significantly alike on 8 of the 15 needs measured by the Edwards Personal Preference Scale. In friendship pairings, females selected female friends who were like themselves and males selected male friends with few similar needs. The male fiancé selected the same type of woman as a friend and as a future spouse, but the female fiancée picked a male friend and a fiancé who were dissimilar.

Reilly, Commins, and Stefic (46, p. 294) studied whether friendship involves a complementarity of personality needs, and whether these needs were mutually satisfying. The Edwards Personal Preference Schedule was utilized to obtain need profiles for each of 50 friend pairs. Relative scores of six values from the Allport-Vernon Study of Values were secured for each subject. Correlations were determined for complete need profiles, for single personality needs, for opposite needs, for the three following groups: friends' self-perceived scores, friends' self-perceived with friend-predicted scores, and randomly matched pairs' self-perceived scores. The authors drew the following conclusions:

. . . no consistent complementary relationship was found in regard to self-perceived personality needs of friends, nor was there any evidence of mutual need satisfaction between friends. Friends, in general did not tend to see themselves and their friends as more consistently complementary rather than similar . . . there was no conclusive evidence for a relationship of similarity of personality needs of friends. Friends tended to be slightly similar in values.

According to Newcomb (43, p. 586), interpersonal attraction can be predicted under specified conditions, from frequency of interaction, from the perception of reciprocated attraction, from certain combinations of personality characteristics and from attitudinal agreement.

#### Summary

The literature abounds with studies related to identifying the qualities and characteristics of effective leaders in education, business, industry, politics and the military. Generally speaking, research indicates that the most effective leaders tend to be above average in intelligence, initiate strong and purposeful activity, are secure in their interpersonal relationships, possess a desire to serve, perform better in an environmental setting which more closely approximates their needs and provide appropriate degrees of consideration and structure for their subordinates.

Techniques designed to select potentially effective leaders are many and varied including reviewing credentials of candidates, observing leader behavior in an assessment center setting, conducting oral interviews and administering tests of intelligence, achievement, values, interests and personality. However, the primary emphasis is placed upon the utilization of more subjectively oriented methods, especially impressions gained through an interview; a technique which is notoriously invalid and unreliable with regard to its potential to predict effective leader behavior.

It appears that the essential difficulties encountered in developing a selection system capable of discriminating between the least effective leaders and the most effective leaders is related to the following: 1) not

all effective leaders possess personal qualities and characteristics of the same kind and degree, 2) effective leader behavior is to some extent situationally determined, 3) selection techniques presently employed lack the refinement to detect and measure the qualities and characteristics of leaders for predictive purposes. However, researchers interested in the development of a leader selection system sensitive to the extent that it is capable of validly and reliably predicting effective leader behavior must continue to study and add to the knowledge already accumulated in this area.

A survey of the literature indicates that the interpersonal relationships of effective educational leaders has failed to attract the attention of researchers to any significant degree. However, this aspect of leader behavior seems to possess a great deal of potential as a means of providing information relative to designing a leader selection system. In addition, the literature appears to suggest that the qualities and characteristics of effective leaders should not be studied separately from the environment of the leader. More specifically, a study of the interpersonal relationships of the most effective large school elementary and senior high principals and the most effective small school elementary and senior high principals in the State of Iowa would not only assist in the development of a comprehensive leader selection system generally but, also, aid Iowa superintendents and boards of education in selecting the most competent principals to serve as leaders of schools.

Compatibility, which is a property of a relation between two or more persons that leads to mutual satisfaction of interpersonal needs and harmonious coexistence, has more recently appeared with increasing frequency in the literature devoted to sociology, psychology and business management.

However, a paucity of compatibility studies prevails in education, especially educational administration.

The concept of compatibility is not necessarily related to selecting effective educational administrators. Nevertheless, knowledge of compatible need structure can be helpful in employing persons who work well together. Research indicates that individuals who are compatible are more productive, adopt educational innovations more readily, experience greater positive effects of psychotherapy, select the person who is more competent in a group, are more capable of using the resources of the group, and as principals are more attracted to poorly qualified teacher candidates with attitudes similar to their own than to highly qualified candidates with dissimilar attitudes.

If the concept of compatibility could be applied to selecting individuals who are capable of effectively working together, more successful administrative teams could be formed.



## CHAPTER 3. METHODS AND PROCEDURES

The sample for this investigation was drawn from among practicing local public school superintendents, elementary principals and senior high principals listed in the Iowa Educational Directory for the 1975-76 school year.

The 50 smallest Iowa school districts and 50 largest Iowa school districts, whose superintendents were employed in that same position for at least three years, were selected for this study. The superintendents were asked to rate their senior high principals and an equal number of elementary principals utilizing a Principal Evaluation Form (see Appendix A), to respond to the FIRO-B themselves (see Appendix B), and request that their principals do likewise. The Principal Evaluation Form was adapted from a form developed by Dr. Ross Engel in the Department of Educational Administration at Iowa State University. The Principal Evaluation Form instructed the superintendents to rate their principals based on how the superintendents thought the principals being evaluated compared with other principals whom the superintendents had known in their experience as administrators. Superintendents rated the principals on a continuum of 1 to 15 (1, poor, to 15, exceptional) in each of the following areas of responsibility:

- 1) office management, 2) staff relationships, 3) student relationships,
- 4) community relationships, 5) instructional leadership.

Ratings assigned for each area were totaled for each principal. The elementary principals and senior high principals were categorized as most effective if their individual rating fell at or above the top quartile and least effective if their individual rating fell at or below the bottom quartile for all

subjects in their position category. As a means of determining compatibility, the superintendents were asked to indicate whether they would take the principal being evaluated with them assuming the superintendent were to be employed in another school district and a principal's position were available.

It seemed reasonable that those superintendents considered capable administrators themselves would be in a better position to identify effective elementary principals and senior high principals. For the purpose of this study, only those superintendents who have maintained their present position for a period of at least three years, in light of the many conflicting demands of patrons, students, teachers, and others, were recognized as capable administrators.

#### Collection of Data

All of the data used in this study were taken from results of the survey instrument FIRO-B, an instrument designed specifically to measure the behavior of people in interpersonal situations. An initial letter (see Appendix C) explaining the purposes of the study and requesting participation was sent to superintendents of selected school districts. Copies of the FIRO-B and Principal Evaluation Form were also included. Approximately three weeks later a follow-up letter (see Appendix D) was sent to superintendents of school districts who had not returned the survey instruments and evaluation forms. Seventy-four superintendents, 84 elementary principals, and 78 senior high principals responded to the survey with 100 school districts sampled.

### Analysis of the Data

The data generated from the responses to the FIRO-B survey instrument were placed on coded sheets and then punched and verified on IBM cards. The facilities at the Iowa State University Computation Center were employed to analyze the data on the 360/40 IBM Computer. The computer program utilized in the treatment of the data and hypotheses testing was the Statistical Package for the Social Sciences by Hull and Nic (21).

To test the hypotheses concerned with measuring the interpersonal relationships of elementary principals and senior high principals and determining compatibility with their superintendents, the t-test statistic was used to determine whether there were significant differences between the means of the various groups. The t-test can be effectively employed for determining significant differences between two means of small samples. This technique assumes that the two samples being compared are normally distributed (58, pp. 190-191).

The F-statistic was employed to test sample group variances. If the tabular F value was less than the calculated F value, the difference was considered significant, i.e. sample population variances were not equal and the separate-t was used. If the tabular F value was greater than the calculated F value, the difference was considered not significant, i.e. sample population variances were equal and the pooled-t was utilized.

Each hypothesis was tested at the .10 level, the .05 level, and the .01 level. Recent studies have made more frequent use of .10 significance level and it seems especially appropriate for an exploratory study of this nature as a possible indication for further research.

### Analysis of FIRO-B Scores

In order for the reader to obtain a more comprehensive understanding of the analysis of FIRO-B scores, the types of behaviors associated with each dimension of interpersonal relations as well as specific interpretation of FIRO-B results are presented.

#### Types of Interpersonal Behavior

In Schutz's book, The Interpersonal Underworld (54, pp. 25-33), for each area of interpersonal behavior three types of behavior are described: (1) deficient--indicating that the individual is not trying directly to satisfy the need, (2) excessive--indicating that the individual is constantly trying to satisfy the need, (3) ideal--indicating satisfaction of the need.

It is assumed that anxiety caused by early experiences leads to behavior of the first two types, while a successful working through of an interpersonal relation leads to an individual who can function without anxiety in the area. The behavior of any individual can best be described as some combination of behavior including elements of all three types at different times.

#### Inclusion types

Undersocial      The interpersonal behavior of the undersocial person tends to be introverted and withdrawn. He avoids associating with others and rejects invitations to join others. Consciously, he wants to maintain his distance between himself and others, and insists that he doesn't want to get involved with people and lose his privacy. But unconsciously he wants others to pay attention to him. He fears that people will ignore him,

generally have no interest in him, and would just as soon not include him in social activities. There is a strong drive toward self-sufficiency as a technique for existence without others. Since social abandonment is tantamount to death, he must compensate by directing his energies toward self-preservation; he therefore creates a world of his own in which his existence is more secure. Behind this withdrawal lies anxiety and hostility, and often a slight air of superiority and the private feeling that others don't understand him. His deepest anxiety, that referring to the self concept, is that he is worthless. He thinks that if no one ever considered him important enough to receive attention, he must be of no value whatever.

Oversocial The oversocial person tends toward extraversion in his later interpersonal behavior. Characteristically, he seeks people incessantly and wants them to seek him out. He is also afraid they will ignore him. His interpersonal dynamics are the same as those of the withdrawn person, but his overt behavior is the opposite. His unconscious attitude is that no one is interested in him so his behavior is directed toward gaining attention from others. Techniques he uses to focus attention on himself include forcing himself on a group, name dropping, and asking startling questions.

Social The social person is as equally comfortable with people as with being alone. He can be a high or low participator in a group, or can equally well take a moderate role, without anxiety. Unconsciously, he feels that he is worthwhile, a significant person and that life is worth living. He is capable of being genuinely interested in others and feels that they will include him in their activities.

Control types

Abdicrat      The interpersonal behavior of the abdicrat tends toward submission and renounces power and responsibility. Generally, he assumes the subordinate position where others will take responsibility for making decisions. He fears that others will not help him when he needs it and he may be given more responsibility than he can handle. Unconsciously, he feels that he is incapable of responsible adult behavior and that others are aware of it. He avoids situations in which he will feel helpless and views himself as incompetent and an irresponsible person who does not deserve that others respect his ability.

Autocrat      The autocrat is a person who attempts to dominate others and strongly desires a power hierarchy with himself at the top. Basically the person feels that he is not responsible or capable of discharging his obligations, a fact which is known to others. He attempts to use every opportunity to disprove this feeling to others and to himself.

Democrat      The democrat feels comfortable giving or taking orders depending upon what is appropriate to the situation. He has successfully resolved his relations with others in the area of control. Unconsciously, he feels that he is a capable, responsible person who does not have to avoid responsibility or to prove his competency to others or to himself. He feels that others respect his competence and trust his decision making ability.

Affection types

Undersocial      The undersocial persons tends to avoid close personal relationships and is most comfortable when others do the same. He fears

that no one loves him and that in a group situation he won't be liked. He has suffered rejection by others in the past and he will avoid close personal relations as a means of protecting himself in the future. The technique utilized to maintain emotional distance is to reject and avoid people to prevent emotional closeness or involvement, even to the point of being antagonistic. His deepest anxiety is that he is unlovable. If people get to know him well, he believes, they would discover the traits that make him so unlovable.

Overpersonal The interpersonal behavior of the overpersonal individual is characterized by attempts to become extremely close to others. Being liked is extremely important to him in attempting to dispel his anxiety about being always rejected and unlovable. Both the overpersonal and the underpersonal responses are extreme, both are motivated by a strong need for affection, both are accompanied by strong anxiety about ever being loved, and both have considerable hostility behind them related to the anticipation of rejection.

Personal The personal individual has successfully resolved his affectional relations with others in childhood. He is comfortable in close personal relationships, and he is comfortable in a situation requiring emotional distance. He wants to be liked, but if he isn't liked he can accept the dislike without interpreting it to mean that he is unlovable. This individual is capable of genuine affection.

## Interpretation of the FIRO-B Scores

Leo Ryan (49, pp. 4-5) has discussed general suggestions to aid test users in the interpretation of the results of the FIRO-B survey questionnaire.

1. Scores on the FIRO-B range from 0-9. The closer the score is to the extremes of the range, the more applicable are the following general behavioral descriptions for high and low scores in each area.
  - a. Inclusion. A low expressed score means that a person is uncomfortable around people and will tend to move away from them. A high expressed score indicates that the person is comfortable in social settings and will tend to move toward people. A low wanted score means that the person is selective about those with whom he associates, while a high wanted score means that he has a strong need to belong and to be accepted.
  - b. Control. A low expressed score means that the person avoids making decisions and taking on responsibility. A high expressed score indicates that he assumes the responsibility involved in leadership. A low wanted score means that the person does not want others to control him or to make decisions for him. A high wanted score for males is reflective of dependency needs: they want others to assume responsibility. For women, a high score may merely be a measure of tolerance rather than dependency.
  - c. Affection. A low expressed score indicates that a person is cautious about initiating the development of close, intimate



relationships. A high expressed score means that the person can readily become emotionally involved, establishing intimate relationships with others. A low wanted score signifies that the person is very selective about individuals with whom he forms deep relationships. A high wanted score describes a person who wants others to initiate relationships with him.

2. Observe the position of the score within the 0-9 range:

0-1 extremely low scores - the behavior will have a compulsive quality.

2-3 low scores - the behavior will be noticeably characteristic of the person.

4-5 borderline score - although not extreme, the person may show a tendency toward the behavior described for high or low scores.

6-7 high scores - the behavior will be noticeably characteristic of the person.

8-9 extremely high scores - the behavior will have a compulsive quality to it.

3. The general orientation within each area should be considered.

The person's orientation within the areas of inclusion, control, and affection is shown by the interaction of his expressed and wanted behavior. If the scores are of similar intensity, it is likely that the person behaves in ways which are compatible with his needs. The greater the discrepancy between the two scores, the greater the likelihood of conflict and/or frustration.

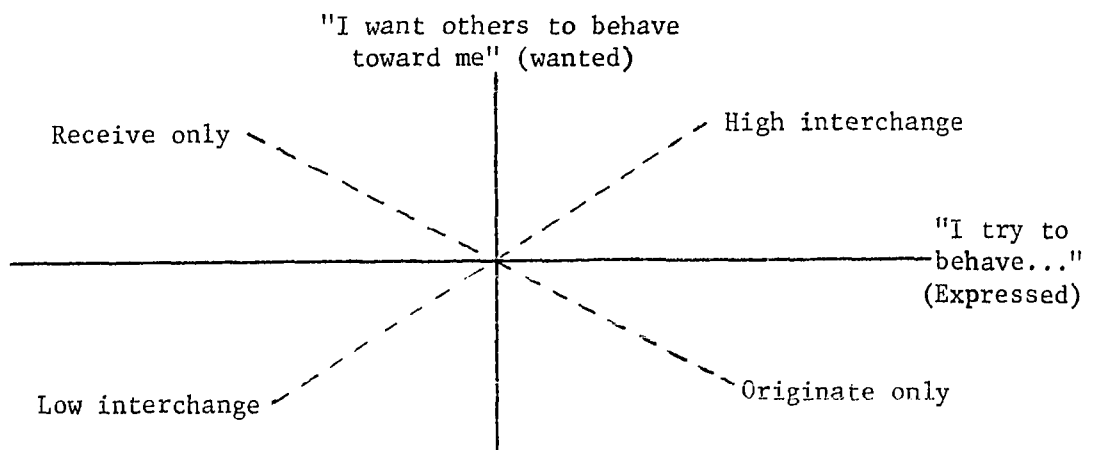
4. The interaction among the three areas should be analyzed. No score should be interpreted in isolation from other scores. The

way in which a person orients himself in one area may help or hinder the interpersonal stance he assumes in other areas. It is also important to note that the three areas are in reverse order with respect to their ability to modify other areas. The orientation assumed by the person in the area of affection is more important than that assumed in the control area. The control area is more important than the inclusion area.

### Compatibility

The postulate of compatibility based on the Fundamental Interpersonal Orientation theory was also developed by Schutz and is relevant to this study. Compatibility is a property of a relation between two or more persons, between an individual and a role, or between an individual and a task situation that leads to mutual interpersonal need satisfaction and harmonious coexistence. Sociometrically, compatibility refers to "works well with" but does not necessarily imply liking.

There are two main types of compatibility which can be understood by considering the diagonals of the diagram below.



The high-interchange quadrant represents those who prefer a great deal of exchange of interaction, power and love associated with the area. The low-interchange quadrant includes those who wish to avoid exchange, those who neither initiate nor want to receive inclusion, control, or affection. Two people should be similar with respect to the interchange variable to be compatible. Compatibility based on similarity along this diagonal is called interchange compatibility (symbolized as xK).

The other diagonal goes from those who desire only to initiate behavior to those who only wish to receive it. To be compatible on this dimension, two people should be equidistant from the center in opposite directions. Compatibility based on similarity along this diagonal is called originator compatibility (symbolized as oK).

A related measure is derived from the major axes rather than the diagonals and is based on the assumption that the expressed behavior of one person must equal the wanted behavior of the other person. This is known as reciprocal compatibility (symbolized as rK).

So that the reader may gain a better understanding of the above-mentioned compatibility indices, more precise and expanded definitions follow.

Reciprocal compatibility: A person wants to act in a certain way toward another, and wants to be acted toward in a certain way. By comparing A's description of how he likes to be acted toward with B's description of how he likes to act toward people, and vice versa, a measure of mutual need satisfaction is derived. This type of compatibility may be indicated quantitatively by letting  $e_i$  and  $e_j$  stand for the score on the expressed behavior for the first and second members of the dyad, respectively, and

$w_i$  and  $w_j$ , the score of the behavior wanted from others, for the two members of the dyad. A comparison is made between the way member  $i$  likes to be acted toward ( $w_i$ ) and the way member  $j$  likes to act toward others ( $e_j$ ), and similarly between  $w_j$  and  $e_i$ . The smaller the discrepancy between each pair of scores, the greater the degree of compatibility. Reciprocal compatibility can be expressed by the following formula:

$$rK_{ij} = /e_i - w_j/ + /e_j - w_i/$$

Originator compatibility: This type of compatibility is based more directly on the originate-receive axis. Conflicts arise when there is disagreement regarding preference of who shall originate relations and who shall receive them. For each need area (inclusion, control, affection) there are two types of conflict: between two originators, competitive originator incompatibility, and between two receivers, apathetic originator incompatibility. Originator compatibility is determined by calculating a score for each individual expressing his degree of preference for initiating and not receiving. The highest compatibility occurs when the two persons' scores are complementary. If they are exactly complementary, they will have the same score values with opposite signs, i.e. their scores will add to zero. For the computation of originator compatibility, the sign is retained to indicate competitive or apathetic types of incompatibility. Originator compatibility can be expressed by the following formula:

$$oK_{ij} = (e_i - w_i) + (e_j - w_j)$$

Interchange compatibility: This type of compatibility refers to the mutual expression of inclusion, control and affection. For example, high affection interchange refers to a situation in which all participants

exchange a great deal of affection. Low control interchange refers to a situation in which there is little controlling of behavior of others by anyone. The amount of interchange an individual desires is measured by combining his scores on the expressed and wanted scales. The high interchange-low interchange diagonal is a direct measure of interchange. The more similar two persons' scores are on this diagonal the more compatible the persons are. The formula used for computing interchange compatibility is as follows:

$$xK_{ij} = \frac{(e_i + w_i) - (e_j + w_j)}{2}$$

The smaller the value of  $xK$ , the greater the interchange compatibility. This type of compatibility appears to be more relevant for groups larger than two.

Since there are three test dimensions and three forms of compatibility, there are nine compatibility scores. A global compatibility score will be obtained by summing all nine scores and designated  $K$ .

In summary, three types of compatibility have been discussed. Originator compatibility ( $oK$ ) is based on the originate-receive diagonal of the diagram on page 68. Reciprocal compatibility ( $rK$ ) is similar to  $oK$  but is based on the major axes of that diagram. Interchange compatibility ( $xK$ ) is based on the high interchange-low interchange diagonal of the diagram. The formulas presented in this section actually give a direct measure of incompatibility since for each measure of compatibility a low score means high compatibility.

## CHAPTER 4. FINDINGS

The findings of this study are based on the results obtained by administering the FIRO-B to superintendents, elementary principals and senior high principals employed by the 50 largest and the 50 smallest school districts in the State of Iowa where the superintendents had at least three years of continuous employment in that school district. Frequency distributions, means, and standard deviations were used to describe the elementary principals and senior high principals being studied. T-tests were utilized to test for significant differences between groups on dimensions measured by the FIRO-B and to determine compatibility of the superintendents with their principals.

## Examination of FIRO-B Scores

The following tables present the results of the administration of the FIRO-B to the elementary principals and senior high principals. Comparisons were made of each of the groups indicated below: the most effective elementary principals and the most effective senior high principals, the most effective elementary principals and the least effective elementary principals, the most effective senior high principals and the least effective senior high principals, the most effective large school elementary principals and the most effective small school elementary principals, the most effective large school senior high principals and the most effective small school senior high principals, the most effective large school elementary principals and the least effective large school elementary principals, the most effective small school elementary principals and the least effective small school elementary principals, the most effective large school

senior high principals and the least effective large school senior high principals, the most effective small school senior high principals and the least effective small school senior high principals, and the most effective elementary and senior high principals and the least effective elementary and senior high principals. Each of the groups was compared with the other in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, and affection wanted. Significant differences are shown at the .10 level, .05 level, and the .01 level.

In comparing the interpersonal relationships of the most effective elementary principals and the most effective senior high principals as indicated in Table 3, there is no significant difference in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed or affection wanted.

It is interesting to note that while the difference was not large enough to be significant, the inclusion wanted mean score for the most effective elementary principals was appreciably higher than the inclusion wanted mean score for the most effective senior high principals.

Referring to Table 19, Appendix E, 61 percent of the most effective senior high principals fall within the 0-3 range, while only 30 percent of the most effective elementary principals fall within this range. This suggests that the most effective elementary principals may have a more intense desire to be included in a group than the most effective senior high principals.

Comparisons of the interpersonal relationships of the most effective elementary principals with the least effective elementary principals as presented in Table 4, indicates there is no significant difference in the

Table 3. A comparison of the interpersonal relationships of the most effective elementary principals and the most effective senior high principals

|                                       | N  | Mean  | SD    | t     |
|---------------------------------------|----|-------|-------|-------|
| Inclusion expressed:                  |    |       |       |       |
| Most effective elementary principals  | 20 | 5.050 | 1.572 | -0.84 |
| Most effective senior high principals | 18 | 5.444 | 1.294 |       |
| Inclusion wanted:                     |    |       |       |       |
| Most effective elementary principals  | 20 | 4.500 | 2.819 | 1.60  |
| Most effective senior high principals | 18 | 2.889 | 3.376 |       |
| Control expressed:                    |    |       |       |       |
| Most effective elementary principals  | 20 | 5.600 | 2.437 | -0.34 |
| Most effective senior high principals | 18 | 5.833 | 1.724 |       |
| Control wanted:                       |    |       |       |       |
| Most effective elementary principals  | 20 | 3.850 | 2.110 | -0.05 |
| Most effective senior high principals | 18 | 3.889 | 2.298 |       |
| Affection expressed:                  |    |       |       |       |
| Most effective elementary principals  | 20 | 3.950 | 2.523 | 0.15  |
| Most effective senior high principals | 18 | 3.833 | 2.203 |       |
| Affection wanted:                     |    |       |       |       |
| Most effective elementary principals  | 20 | 4.850 | 2.720 | 0.58  |
| Most effective senior high principals | 18 | 4.333 | 2.808 |       |

areas of inclusion expressed, inclusion wanted, control wanted, affection expressed, or affection wanted.

However, there was a significance at the .05 level in the area of control expressed. This indicates that the most effective elementary principals have a greater need to control other people than the least effective elementary principals. In fact 50 percent of the most effective elementary principals scored in the 6-9 category on the control expressed dimension (see Table 20, Appendix E).



Table 4. A comparison of the interpersonal relationships of the most effective elementary principals with the least effective elementary principals

|                                       | N  | Mean  | SD    | t                  |
|---------------------------------------|----|-------|-------|--------------------|
| Inclusion expressed:                  |    |       |       |                    |
| Most effective elementary principals  | 20 | 5.050 | 1.572 | 0.17               |
| Least effective elementary principals | 20 | 4.950 | 2.139 |                    |
| Inclusion wanted:                     |    |       |       |                    |
| Most effective elementary principals  | 20 | 4.500 | 2.819 | -0.15              |
| Least effective elementary principals | 20 | 4.650 | 3.468 |                    |
| Control expressed:                    |    |       |       |                    |
| Most effective elementary principals  | 20 | 5.600 | 2.437 | 2.32 <sup>**</sup> |
| Least effective elementary principals | 20 | 3.850 | 2.323 |                    |
| Control wanted:                       |    |       |       |                    |
| Most effective elementary principals  | 20 | 3.850 | 2.110 | -0.27              |
| Least effective elementary principals | 20 | 4.050 | 2.605 |                    |
| Affection expressed:                  |    |       |       |                    |
| Most effective elementary principals  | 20 | 3.950 | 2.523 | -0.25              |
| Least effective elementary principals | 20 | 4.150 | 2.498 |                    |
| Affection wanted:                     |    |       |       |                    |
| Most effective elementary principals  | 20 | 4.850 | 2.720 | -0.25              |
| Least effective elementary principals | 20 | 5.050 | 2.235 |                    |

<sup>\*\*</sup>Indicates significance at the .05 level.

In comparing the interpersonal relationships of the most effective senior high principals and the least effective senior high principals, a significant difference at the .10 level was found in the area of inclusion expressed indicating that the most effective senior high principals have a greater desire to include others in group activities than the least effective senior high principals (see Table 5).

Table 5. A comparison of the interpersonal relationships of the most effective senior high principals and the least effective senior high principals

|  | N  | Mean  | SD    | t      |
|--|----|-------|-------|--------|
| Inclusion expressed:                   |    |       |       |        |
| Most effective senior high principals  | 18 | 5.444 | 1.294 | 1.96*  |
| Least effective senior high principals | 20 | 4.500 | 1.638 |        |
| Inclusion wanted:                      |    |       |       |        |
| Most effective senior high principals  | 18 | 2.889 | 3.376 | 0.35   |
| Least effective senior high principals | 20 | 2.550 | 2.605 |        |
| Control expressed:                     |    |       |       |        |
| Most effective senior high principals  | 18 | 5.833 | 1.724 | 2.45** |
| Least effective senior high principals | 20 | 4.200 | 2.308 |        |
| Control wanted:                        |    |       |       |        |
| Most effective senior high principals  | 18 | 3.889 | 2.298 | -0.83  |
| Least effective senior high principals | 20 | 4.500 | 2.259 |        |
| Affection expressed:                   |    |       |       |        |
| Most effective senior high principals  | 18 | 3.833 | 2.203 | 1.40   |
| Least effective senior high principals | 20 | 3.000 | 1.298 |        |
| Affection wanted:                      |    |       |       |        |
| Most effective senior high principals  | 18 | 4.333 | 2.808 | .28    |
| Least effective senior high principals | 20 | 4.100 | 2.315 |        |

\*Indicates significance at the .10 level.

\*\*Indicates significance at the .05 level.

Eighty-three percent of the most effective senior high principals scored in the 5-7 range as presented in Table 18, Appendix E.

The other category in which a significant difference was noted at the .05 level was control expressed, indicating that the most effective senior high principals have a stronger need to control the activities of other people than the least effective senior high principals. Ninety-four

percent of the most effective senior high principals scored in the 4-9 range of the control expressed dimension (see Table 20, Appendix E).

It should be pointed out that, while not achieving significance, the mean score of the most effective senior high principals was considerably higher than the mean score for the least effective senior high principals on the affection expressed dimension. This result suggests that the most effective senior high principals may have a greater desire to express friendly and affectionate feelings and to try to be personal and intimate than the least effective senior high principals.

Comparisons of the interpersonal relationships of the most effective large school elementary principals and the most effective small school elementary principals signify no significant difference in the areas of inclusion expressed, inclusion wanted, control wanted, affection expressed, or affection wanted.

However, there was a significant difference at the .05 level between these two groups on the control expressed dimension indicating that the most effective large school elementary principals have a more intense need to control the activities of other people than the most effective small school elementary principals (see Table 6).

The most effective large school elementary principals' mean scores on both the inclusion expressed and affection expressed dimensions, while not achieving significance, are considerably higher than the most effective small school elementary principals' mean scores. This result suggests that the most effective large school elementary principals may have a greater desire to include other people in their activities and to express friendly

Table 6. A comparison of the interpersonal relationships of the most effective large school elementary principals and the most effective small school elementary principals

|   | N  | Mean  | SD    | t      |
|---|----|-------|-------|--------|
| Inclusion Expressed:                              |    |       |       |        |
| Most effective large school elementary principals | 13 | 5.308 | 1.653 |        |
| Most effective small school elementary principals | 7  | 4.571 | 1.397 | 1.00   |
| Inclusion wanted:                                 |    |       |       |        |
| Most effective large school elementary principals | 13 | 4.615 | 3.124 |        |
| Most effective small school elementary principals | 7  | 4.286 | 2.360 | .24    |
| Control expressed:                                |    |       |       |        |
| Most effective large school elementary principals | 13 | 6.462 | 2.145 |        |
| Most effective small school elementary principals | 7  | 4.000 | 2.236 | 2.41** |
| Control wanted:                                   |    |       |       |        |
| Most effective large school elementary principals | 13 | 3.539 | 2.066 |        |
| Most effective small school elementary principals | 7  | 4.429 | 2.225 | -0.90  |
| Affection expressed:                              |    |       |       |        |
| Most effective large school elementary principals | 13 | 4.385 | 2.694 |        |
| Most effective small school elementary principals | 7  | 3.143 | 2.116 | 1.05   |
| Affection wanted:                                 |    |       |       |        |
| Most effective large school elementary principals | 13 | 5.077 | 2.985 |        |
| Most effective small school elementary principals | 7  | 4.429 | 2.299 | 0.50   |

\*\* Indicates significance at the .05 level.

and affectionate feelings and to try to be personal and intimate than the most effective small school elementary principals.

In comparing the interpersonal relationships of the most effective large school senior high principals and the most effective small school senior high principals, as shown in Table 7, there is no significant difference in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, or affection wanted.

However, it is interesting to note that, while not achieving significance, the most effective small school senior high principals appeared to have an appreciably greater desire to control the activities of others than the most effective large school senior high principals.

Table 8 presents the results of a comparison of the most effective large school elementary principals and the least effective large school elementary principals. No significant difference was evident with the exception of control expressed. Testing at the .10 level indicated that the most effective large school elementary principals had a significantly greater desire to control the activities of others than the least effective large school elementary principals.

In comparing the interpersonal relationships of the most effective small school elementary principals and the least effective small school elementary principals, there is no significant difference in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed or affection wanted (see Table 9).

When comparing the interpersonal relationships of the most effective large school senior high principals and the least effective large school senior high principals, no significant difference was indicated in the

Table 7. A comparison of the interpersonal relationships of the most effective large school senior high principals and the most effective small school senior high principals

|  | N  | Mean   | SD    | t     |
|--|----|--------|-------|-------|
| Inclusion expressed:                               |    |        |       |       |
| Most effective large school senior high principals | 12 | 5.417  | 1.164 |       |
| Most effective small school senior high principals | 6  | 5.500  | 1.643 | -0.13 |
| Inclusion wanted:                                  |    |        |       |       |
| Most effective large school senior high principals | 12 | 2.917  | 3.397 |       |
| Most effective small school senior high principals | 6  | 2.833  | 3.656 | 0.05  |
| Control expressed:                                 |    |        |       |       |
| Most effective large school senior high principals | 12 | 5.417  | 1.676 |       |
| Most effective small school senior high principals | 6  | 6.667  | 1.633 | -1.50 |
| Control wanted:                                    |    |        |       |       |
| Most effective large school senior high principals | 12 | 4.083  | 1.975 |       |
| Most effective small school senior high principals | 6  | 3.500  | 3.017 | 0.50  |
| Affection expressed:                               |    |        |       |       |
| Most effective large school senior high principals | 12 | 3.9167 | 2.392 |       |
| Most effective small school senior high principals | 6  | 3.667  | 1.966 | 0.22  |
| Affection wanted:                                  |    |        |       |       |
| Most effective large school senior high principals | 12 | 4.417  | 2.712 |       |
| Most effective small school senior high principals | 6  | 4.167  | 3.251 | 0.17  |

Table 8. A comparison of the interpersonal relationships of the most effective large school elementary principals and the least effective large school elementary principals

|  | N  | Mean  | SD    | t     |
|--|----|-------|-------|-------|
| Inclusion expressed:                               |    |       |       |       |
| Most effective large school elementary principals  | 13 | 5.308 | 1.653 |       |
| Least effective large school elementary principals | 8  | 5.250 | 1.753 | 0.08  |
| Inclusion wanted:                                  |    |       |       |       |
| Most effective large school elementary principals  | 13 | 4.615 | 3.124 |       |
| Least effective large school elementary principals | 8  | 4.000 | 3.817 | 0.40  |
| Control expressed:                                 |    |       |       |       |
| Most effective large school elementary principals  | 13 | 6.462 | 2.145 |       |
| Least effective large school elementary principals | 8  | 4.750 | 2.252 | 1.74* |
| Control wanted:                                    |    |       |       |       |
| Most effective large school elementary principals  | 13 | 3.539 | 2.066 |       |
| Least effective large school elementary principals | 8  | 3.375 | 2.264 | 0.17  |
| Affection expressed:                               |    |       |       |       |
| Most effective large school elementary principals  | 13 | 4.385 | 2.694 |       |
| Least effective large school elementary principals | 8  | 4.000 | 2.507 | 0.33  |
| Affection wanted:                                  |    |       |       |       |
| Most effective large school elementary principals  | 13 | 5.077 | 2.985 |       |
| Least effective large school elementary principals | 8  | 5.625 | 2.387 | -0.44 |

\* Indicates significance at the .10 level.

Table 9. A comparison of the interpersonal relationships of the most effective small school elementary principals and the least effective small school elementary principals

|  | N  | Mean  | SD    | t     |
|--|----|-------|-------|-------|
| Inclusion expressed:                               |    |       |       |       |
| Most effective small school elementary principals  | 7  | 4.571 | 1.397 |       |
| Least effective small school elementary principals | 12 | 4.750 | 2.417 | -0.18 |
| Inclusion wanted:                                  |    |       |       |       |
| Most effective small school elementary principals  | 7  | 4.286 | 2.360 |       |
| Least effective small school elementary principals | 12 | 5.083 | 3.315 | -0.56 |
| Control expressed:                                 |    |       |       |       |
| Most effective small school elementary principals  | 7  | 4.000 | 2.236 |       |
| Least effective small school elementary principals | 12 | 3.250 | 2.261 | 0.70  |
| Control wanted:                                    |    |       |       |       |
| Most effective small school elementary principals  | 7  | 4.289 | 2.225 |       |
| Least effective small school elementary principals | 12 | 4.500 | 2.812 | -0.06 |
| Affection expressed:                               |    |       |       |       |
| Most effective small school elementary principals  | 7  | 3.143 | 2.116 |       |
| Least effective small school elementary principals | 12 | 4.250 | 2.598 | -0.95 |
| Affection wanted:                                  |    |       |       |       |
| Most effective small school elementary principals  | 7  | 4.429 | 2.299 |       |
| Least effective small school elementary principals | 12 | 4.667 | 2.146 | -0.23 |



areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, or affection wanted (see Table 10).

Table 10. A comparison of the interpersonal relationships of the most effective large school senior high principals and the least effective large school senior high principals

|   | N  | Mean  | SD    | t     |
|---|----|-------|-------|-------|
| Inclusion expressed:                                |    |       |       |       |
| Most effective large school senior high principals  | 12 | 5.147 | 1.164 |       |
| Least effective large school senior high principals | 9  | 4.889 | 1.900 | 0.79  |
| Inclusion wanted:                                   |    |       |       |       |
| Most effective large school senior high principals  | 12 | 2.917 | 3.397 |       |
| Least effective large school senior high principals | 9  | 3.111 | 2.667 | -0.14 |
| Control expressed:                                  |    |       |       |       |
| Most effective large school senior high principals  | 12 | 5.417 | 1.676 |       |
| Least effective large school senior high principals | 9  | 4.111 | 2.028 | 1.62  |
| Control wanted:                                     |    |       |       |       |
| Most effective large school senior high principals  | 12 | 4.083 | 1.975 |       |
| Least effective large school senior high principals | 9  | 3.778 | 1.716 | 0.37  |
| Affection expressed:                                |    |       |       |       |
| Most effective large school senior high principals  | 12 | 3.917 | 2.392 |       |
| Least effective large school senior high principals | 9  | 3.222 | 0.972 | 0.91  |
| Affection wanted:                                   |    |       |       |       |
| Most effective large school senior high principals  | 12 | 4.417 | 2.712 |       |
| Least effective large school senior high principals | 9  | 4.778 | 1.641 | -0.35 |

Nevertheless, it should be pointed out that, while not achieving significance, the most effective large school senior high principals appear to have a tendency to exert greater control over the activities of other people than the least effective large school senior high principals.

In comparing the interpersonal relationships of the most effective small school senior high principals and the least effective small school senior high principals, as presented in Table 11, there is no significant difference in the areas of inclusion wanted, control wanted, affection expressed, or affection wanted.

On the inclusion expressed dimension, a significant difference was noted at the .10 level indicating that the most effective small school senior high principals possess a more intense desire to include other people in group activities than the least effective small school senior high principals.

This comparison also resulted in a significant difference at the .10 level in the control expressed category suggesting that the most effective small school senior high principals have a greater need to control the activities of other people than the least effective small school senior high principals.

It should be pointed out that, while not achieving significance, the least effective small school senior high principals' mean score on the control wanted dimension is markedly higher than the most effective small school senior high principals' mean score. This result suggests that the least effective small school senior high principals have a greater desire to have other people control and influence them than the most effective small school senior high principals.

Table 11. A comparison of the interpersonal relationships of the most effective small school senior high principals and the least effective small school senior high principals

|   | N  | Mean  | SD    | t     |
|---|----|-------|-------|-------|
| Inclusion expressed:                                |    |       |       |       |
| Most effective small school senior high principals  | 6  | 5.500 | 1.643 |       |
| Least effective small school senior high principals | 11 | 4.182 | 1.401 | 1.75* |
| Inclusion wanted:                                   |    |       |       |       |
| Most effective small school senior high principals  | 6  | 2.833 | 3.656 |       |
| Least effective small school senior high principals | 11 | 2.091 | 2.587 | 0.49  |
| Control expressed:                                  |    |       |       |       |
| Most effective small school senior high principals  | 6  | 6.667 | 1.633 |       |
| Least effective small school senior high principals | 11 | 4.273 | 2.611 | 2.02* |
| Control wanted:                                     |    |       |       |       |
| Most effective small school senior high principals  | 6  | 3.500 | 3.017 |       |
| Least effective small school senior high principals | 11 | 5.091 | 2.548 | -1.16 |
| Affection expressed:                                |    |       |       |       |
| Most effective small school senior high principals  | 6  | 3.667 | 1.966 |       |
| Least effective small school senior high principals | 11 | 2.818 | 1.537 | 0.99  |
| Affection wanted:                                   |    |       |       |       |
| Most effective small school senior high principals  | 6  | 4.167 | 3.251 |       |
| Least effective small school senior high principals | 11 | 3.546 | 2.697 | 0.42  |

\* Indicates significance at the .10 level.

When comparing the interpersonal relationships of the most effective elementary and senior high principals and the least effective elementary and senior high principals, no significant difference was observed in the areas of inclusion expressed, inclusion wanted, control wanted, affection expressed, or affection wanted (see Table 12).

However, there was a significant difference at the .01 level on the control dimension indicating that the most effective elementary and senior high principals have a much greater desire to control the activities of other people than the least effective elementary and senior high principals.

It is interesting to note that, while not achieving significance, the inclusion expressed mean score for the most effective elementary and senior high principals was appreciably higher than the inclusion expressed mean score for the least effective elementary and senior high principals. This suggests that the most effective elementary and senior high principals may have a more intense need to include others in their activities than the least effective elementary and senior high school principals.

Table 13 presents a summary of all significant differences for each group comparison so as to more graphically illustrate patterns of interpersonal relationships of the most effective and least effective elementary and senior high principals.

#### Examination of Compatibility Data

Comparisons were made between two groups of superintendents and their principals. Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to

Table 12. A comparison of the interpersonal relationships of the most effective elementary and senior high principals and the least effective elementary and senior high principals

|   | N  | Mean  | SD    | t       |
|---|----|-------|-------|---------|
| Inclusion expressed:                                  |    |       |       |         |
| Most effective elementary and senior high principals  | 38 | 5.237 | 1.441 |         |
| Least effective elementary and senior high principals | 40 | 4.725 | 1.894 | 1.34    |
| Inclusion wanted:                                     |    |       |       |         |
| Most effective elementary and senior high principals  | 38 | 3.737 | 3.160 |         |
| Least effective elementary and senior high principals | 40 | 3.600 | 3.209 | 0.19    |
| Control expressed:                                    |    |       |       |         |
| Most effective elementary and senior high principals  | 38 | 5.711 | 2.104 |         |
| Least effective elementary and senior high principals | 40 | 4.025 | 2.293 | 3.38*** |
| Control wanted:                                       |    |       |       |         |
| Most effective elementary and senior high principals  | 38 | 3.868 | 2.171 |         |
| Least effective elementary and senior high principals | 40 | 4.275 | 2.418 | -0.78   |
| Affection expressed:                                  |    |       |       |         |
| Most effective elementary and senior high principals  | 38 | 3.895 | 2.346 |         |
| Least effective elementary and senior high principals | 40 | 3.575 | 2.049 | 0.64    |
| Affection wanted:                                     |    |       |       |         |
| Most effective elementary and senior high principals  | 38 | 4.605 | 2.737 |         |
| Least effective elementary and senior high principals | 40 | 4.575 | 2.297 | .05     |

\*\*\* Indicates significance at the .01 level.

Table 13. Summary table of significant differences found in this study

| Groups in which interpersonal relations were compared <sup>a</sup>                                  | Inclusion expressed | Inclusion wanted | Control expressed | Control wanted | Affection expressed | Affection wanted |
|---|---------------------|------------------|-------------------|----------------|---------------------|------------------|
| Most effective elementary and least effective elementary principals                                 |                     |                  | **                |                |                     |                  |
| Most effective senior high and least effective senior high principals                               | *                   |                  | **                |                |                     |                  |
| Most effective large school elementary and most effective small school elementary principals        |                     |                  | **                |                |                     |                  |
| Most effective large school elementary and least effective large school elementary principals       |                     |                  | *                 |                |                     |                  |
| Most effective small school senior high and least effective small school senior high principals     | *                   |                  | *                 |                |                     |                  |
| Most effective elementary and senior high and least effective elementary and senior high principals |                     |                  | ***               |                |                     |                  |
| Most effective elementary and most effective senior high principals                                 |                     |                  | N                 | O              | N                   | E                |
| Most effective large school senior high and most effective small school senior high principals      |                     |                  | N                 | O              | N                   | E                |
| Most effective small school elementary and least effective small school elementary principals       |                     |                  | N                 | O              | N                   | E                |
| Most effective large school senior high and least effective large school senior high principals     |                     |                  | N                 | O              | N                   | E                |

<sup>a</sup>The first group appearing, in each case, has a higher score (greater desire).  
 \* Indicates significance at the .10 level.  
 \*\* Indicates significance at the .05 level.  
 \*\*\* Indicates significance at the .01 level.

become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district. Each group was compared to the other in the areas of reciprocal compatibility inclusion, reciprocal compatibility control, reciprocal compatibility affection, reciprocal compatibility, originator compatibility inclusion, originator compatibility control, originator compatibility affection, originator compatibility, interchange compatibility inclusion, interchange compatibility control, interchange compatibility affection, interchange compatibility, and total compatibility. Significant differences are shown at the .10 level, .05 level, and the .01 level.

In comparing group one superintendents and principals with group two superintendents and principals, no significant difference was observed in the areas of reciprocal compatibility inclusion, reciprocal compatibility control, reciprocal compatibility affection, or reciprocal compatibility (see Table 14).

However, it should be pointed out that while significance was not achieved, there was an appreciable difference between mean score totals for this comparison in the areas of reciprocal compatibility inclusion, reciprocal compatibility control, and especially reciprocal compatibility. The results suggested that superintendents were more compatible with principals in group two than principals in group one.

In comparing group one superintendents and principals with group two superintendents and principals, no significant difference was observed in the areas of originator compatibility inclusion, originator compatibility affection, or originator compatibility (see Table 15).

Table 14. A comparison of group one superintendents and their principals with group two superintendents and their principals with regard to reciprocal compatibility (rK). Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district

|   | N   | Mean   | SD    | t    |
|---|-----|--------|-------|------|
| Reciprocal compatibility inclusion (rK <sup>I</sup> ):                |     |        |       |      |
| Elementary and senior high principals selected by superintendents     | 122 | 6.664  | 2.659 |      |
| Elementary and senior high principals not selected by superintendents | 40  | 6.125  | 3.014 | 1.08 |
| Reciprocal compatibility control (rK <sup>C</sup> ):                  |     |        |       |      |
| Elementary and senior high principals selected by superintendents     | 122 | 5.697  | 2.828 |      |
| Elementary and senior high principals not selected by superintendents | 40  | 5.075  | 2.556 | 1.23 |
| Reciprocal compatibility affection (rK <sup>A</sup> ):                |     |        |       |      |
| Elementary and senior high principals selected by superintendents     | 122 | 5.254  | 2.434 |      |
| Elementary and senior high principals not selected by superintendents | 40  | 5.025  | 2.778 | 0.50 |
| Reciprocal compatibility (rK):  |     |        |       |      |
| Elementary and senior high principals selected by superintendents     | 122 | 17.615 | 4.857 |      |
| Elementary and senior high principals not selected by superintendents | 40  | 16.225 | 4.671 | 1.58 |

Nevertheless, there is a significant difference at the .05 level in the area of originator compatibility control, indicating that group two principals were more compatible with their superintendents than group one principals.



Table 15. A comparison of group one superintendents and their principals with group two superintendents and their principals with regard to originator compatibility (oK). Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district

|   | N   | Mean   | SD    | t                  |
|---|-----|--------|-------|--------------------|
| Originator compatibility inclusion (oK <sup>I</sup> ):                |     |        |       |                    |
| Elementary and senior high principals selected by superintendents     | 122 | 3.467  | 4.358 |                    |
| Elementary and senior high principals not selected by superintendents | 40  | 3.575  | 3.974 | -0.14              |
| Originator compatibility control (oK <sup>C</sup> ):                  |     |        |       |                    |
| Elementary and senior high principals selected by superintendents     | 122 | 3.156  | 4.556 |                    |
| Elementary and senior high principals not selected by superintendents | 40  | 1.375  | 4.829 | 2.11 <sup>**</sup> |
| Originator compatibility affection (oK <sup>A</sup> ):                |     |        |       |                    |
| Elementary and senior high principals selected by superintendents     | 122 | -2.254 | 2.945 |                    |
| Elementary and senior high principals not selected by superintendents | 40  | -2.125 | 3.702 | -0.23              |
| Originator compatibility (oK):  |     |        |       |                    |
| Elementary and senior high principals selected by superintendents     | 122 | 4.369  | 7.650 |                    |
| Elementary and senior high principals not selected by superintendents | 40  | 2.825  | 8.009 | 1.09               |

<sup>\*\*</sup> Indicates significance at the .05 level.

When comparing group one superintendents and principals with group two superintendents and principals, there is no significant difference in the areas of interchange compatibility inclusion, interchange compatibility control, interchange compatibility affection, or interchange compatibility (see Table 16).

Table 16. A comparison of group one superintendents and their principals with group two superintendents and their principals with regard to interchange compatibility ( $xK$ ). Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district

|   | N   | Mean   | SD    | t     |
|---|-----|--------|-------|-------|
| Interchange compatibility inclusion ( $xK^I$ ):                       |     |        |       |       |
| Elementary and senior high principals selected by superintendents     | 122 | 4.090  | 3.313 |       |
| Elementary and senior high principals not selected by superintendents | 40  | 4.425  | 3.218 | -0.56 |
| Interchange compatibility control ( $xK^C$ ):                         |     |        |       |       |
| Elementary and senior high principals selected by superintendents     | 122 | 3.320  | 2.639 |       |
| Elementary and senior high principals not selected by superintendents | 40  | 3.075  | 2.212 | 0.53  |
| Interchange compatibility affection ( $xK^A$ ):                       |     |        |       |       |
| Elementary and senior high principals selected by superintendents     | 122 | 3.975  | 3.145 |       |
| Elementary and senior high principals not selected by superintendents | 40  | 3.625  | 2.817 | 0.63  |
| Interchange compatibility ( $xK$ ):                                   |     |        |       |       |
| Elementary and senior high principals selected by superintendents     | 122 | 11.385 | 6.253 |       |
| Elementary and senior high principals not selected by superintendents | 40  | 11.125 | 5.876 | 0.23  |

In comparing group one superintendents and principals with group two superintendents and principals, there is no significant difference in the area of total compatibility (see Table 17).

Table 17. A comparison of group one superintendents and their principals with group two superintendents and their principals with regard to total compatibility (K). Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district

|   | N   | Mean   | SD     | t    |
|---|-----|--------|--------|------|
| Total compatibility (K):  |     |        |        |      |
| Elementary and senior high principals selected by superintendents     | 122 | 33.369 | 13.478 |      |
| Elementary and senior high principals not selected by superintendents | 40  | 30.175 | 12.766 | 1.32 |

While significance was not achieved, it is interesting to note that there was a sizable difference between the groups being compared. The results suggest that superintendents are less compatible with group one principals than group two principals.

#### Interpretation of the Findings

##### Inclusion expressed

In the area of inclusion expressed, two separate comparisons indicated significant differences, both at the .10 level. When comparing the most effective senior high principals and the least effective senior high principals, it was discovered that the former group had a greater desire to

include others in their activities, to join social groups, and to be with people as much as possible. A comparison of most effective small school senior high principals and least effective small school senior high principals also yielded a significant difference on this dimension. The most effective small school senior high principals have a significantly greater desire to include other people in their activities than the least effective small school senior high principals.

#### Inclusion wanted

None of the comparisons in the area of inclusion wanted indicated any significant differences between any of the groups.

#### Control expressed

On the control expressed dimension, six comparisons resulted in significant differences, two at the .10 level, three at the .05 level and one at the .01 level. In comparing the most effective elementary principals and the least effective elementary principals, it was observed that the former group has a greater desire to exert control and influence. The most effective senior high principals have a more intense need to take charge of things and tell others what to do than the least effective senior high principals. Comparisons of the most effective large school elementary principals and the most effective small school elementary principals indicate that the most effective elementary principals employed by a large school district have a greater need to exert control over their environment than their small school district counterparts. When comparing the most effective large school elementary principals and the least effective large school elementary principals, it was discovered that the former group has a

greater desire to control and influence other people. The most effective small school senior high principals displayed a more intense need to exert control over their environment than the least effective small school senior high principals. A highly significant difference was noted when comparisons were made between the most effective elementary and senior high principals and the least effective elementary and senior high principals with those principals in the most effective category displaying a much greater desire to control and influence other people and things.

#### Control wanted

None of the comparisons in the area of control wanted indicated any significant differences between any of the groups.

#### Affection expressed

None of the comparisons in the area of affection expressed indicated any significant differences between any of the groups.

#### Affection wanted

None of the comparisons in the area of affection wanted indicated any significant differences between any of the groups.

#### Reciprocal compatibility

None of the comparisons in the area of reciprocal compatibility indicated any significant differences.

#### Originator compatibility

In the area of originator compatibility, control dimension, there was a significant difference at the .05 level indicating that superintendents

are more compatible with those elementary and senior high principals whom the superintendents did not select to accompany them to another school district. This finding suggests that superintendents may prefer as principals those persons with whom the superintendents are in competitive conflict, both administrators desiring to be dominant and run the activities but neither wanting to be told what to do.

#### Interchange compatibility

None of the comparisons in the area of interchange compatibility indicated any significant differences.

#### Total compatibility

The comparison of the two groups in the area of total compatibility indicated no significant differences.

#### Summary

The findings of this study substantiate the following statements and generalizations:

1. The most effective elementary principals have a greater desire to control and influence other people than the least effective elementary principals.
2. The most effective senior high principals have a more intense desire to include others in their activities and control and influence other people than the least effective senior high principals.
3. The most effective large school elementary principals possess a greater desire to control and influence other people than the most effective small school elementary principals.

4. The most effective large school elementary principals exhibit a more intense need to control and influence other people than the least effective large school elementary principals.

5. The most effective small school senior high principals have a greater desire to include others in their activities and to control and influence other people than the least effective small school senior high principals.

6. The most effective elementary and senior high principals show a much more intense need to control and influence other people than the least effective elementary and senior high principals.

7. Superintendents prefer to work with those principals with whom there is competitive conflict, both administrators desiring to be dominant and assume responsibility for activities but neither of whom wants to accept control from other people.

## CHAPTER 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

## Summary

Purpose

The purposes of this study were to examine the interpersonal profiles of the most effective elementary and senior high principals, to determine whether or not there were significant differences in the behavioral characteristics of elementary and senior high principals with reference to effectiveness and size of school district and to ascertain the compatibility of superintendents with their principals.

Procedure

The data for this study were obtained by administering the FIRO-B survey instrument to 74 superintendents, 84 elementary principals, and 78 senior high principals employed by the 50 largest and the 50 smallest school districts in the State of Iowa with the stipulation that the superintendents must have worked in the same school district for a period of at least three consecutive years. The superintendents were asked to rate their senior high principals and an equal number of elementary principals utilizing the Principal Evaluation Form. Based upon this rating, the top quartile elementary and top quartile senior high principals were categorized as most effective while those in the bottom quartile were categorized as least effective. The superintendents were also asked to respond to the following question: "Assuming you were to be employed as a superintendent in another school district and a principal's position were available, would you take the principal being evaluated to work with you in this new setting?" Compatibility scores were computed and comparisons were made



for group one superintendents and principals and group two superintendents and principals. Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district.

When the scores were received, the data were statistically analyzed to determine if there were significant differences between groups in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, affection wanted, reciprocal compatibility inclusion, reciprocal compatibility control, reciprocal compatibility affection, reciprocal compatibility, originator compatibility inclusion, originator compatibility control, originator compatibility affection, originator compatibility, interchange compatibility inclusion, interchange compatibility control, interchange compatibility affection, interchange compatibility, and total compatibility. The t-test was employed to determine significant differences between means for all group comparisons. The data were examined in relation to the null hypotheses that there would be no significant differences between any of the groups.

### Results

The findings concerning these hypotheses are as follows:

1. There are no significant differences between the most effective elementary principals and the most effective senior high principals in the

areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, or affection wanted.

2. There are no significant differences between the most effective elementary principals and the least effective elementary principals in the areas of inclusion expressed, inclusion wanted, control wanted, affection expressed, or affection wanted.

3. There is a significant difference between the most effective elementary principals and the least effective elementary principals in the area of control expressed. The most effective elementary principals have a greater desire to control and influence other people than the least effective elementary principals.

4. There are no significant differences between the most effective senior high principals and the least effective senior high principals in the areas of inclusion wanted, control wanted, affection expressed, or affection wanted.

5. There are significant differences between the most effective senior high principals and the least effective senior high principals in the areas of inclusion expressed and control expressed. The most effective senior high principals have a greater desire to include other people in their activities and a more intense need to control and influence other people than the least effective senior high principals.

6. There are no significant differences between the most effective large school elementary principals and the most effective small school elementary principals in the areas of inclusion expressed, inclusion wanted, control wanted, affection expressed, or affection wanted.

7. There is a significant difference between the most effective large school elementary principals and the most effective small school elementary principals in the area of control expressed. The most effective large school elementary principals have a greater desire to control and influence other people than the most effective small school elementary principals.

8. There are no significant differences between the most effective large school senior high principals and the most effective small school senior high principals in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, or affection wanted.

9. There are no significant differences between the most effective large school elementary principals and the least effective large school elementary principals in the areas of inclusion expressed, inclusion wanted, control wanted, affection expressed, or affection wanted.

10. There is a significant difference between the most effective large school elementary principals and the least effective large school elementary principals in the area of control expressed. The most effective large school elementary principals have a greater desire to control and influence other people than the least effective large school elementary principals.

11. There are no significant differences between the most effective small school elementary principals and the least effective small school elementary principals in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, or affection wanted.

12. There are no significant differences between the most effective large school senior high principals and the least effective large school

senior high principals in the areas of inclusion expressed, inclusion wanted, control expressed, control wanted, affection expressed, or affection wanted.

13. There are no significant differences between the most effective small school senior high principals and the least effective small school senior high principals in the areas of inclusion wanted, control wanted, affection expressed, or affection wanted.

14. There are significant differences between the most effective small school senior high principals and the least effective small school senior high principals in the areas of inclusion expressed, and control expressed. The most effective small school senior high principals have a greater desire to include other people in their activities and a more intense need to control and influence other people than the least effective small school senior high principals.

15. There are no significant differences between the most effective elementary and senior high principals and the least effective elementary and senior high principals in the areas of inclusion expressed, inclusion wanted, control wanted, affection expressed, or affection wanted.

16. There is a highly significant difference between the most effective elementary and senior high principals and the least effective elementary and senior high principals in the area of control expressed. The most effective elementary and senior high principals have a much more intense desire to control and influence other people than the least effective elementary and senior high principals.

17. There are no significant differences between the two groups of superintendents and their principals in the areas of reciprocal

compatibility inclusion, reciprocal compatibility control, reciprocal compatibility affection or reciprocal compatibility. Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district.

18. There are no significant differences between two groups of superintendents and their principals in the areas of originator compatibility inclusion, originator compatibility affection, or originator compatibility. Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district.

19. There is a significant difference between group one superintendents and principals and group two superintendents and principals in the area of originator compatibility control. The originator compatibility control mean score of the group two superintendents and principals was significantly lower than the originator compatibility control mean score of the group one superintendents and principals demonstrating a higher degree of compatibility among the former group than the latter.

20. There are no significant differences between two groups of superintendents and their principals in the areas of interchange compatibility inclusion, interchange compatibility control, interchange compatibility affection, or interchange compatibility. Group one consisted of

superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district.

21. There is no significant difference between two groups of superintendents and their principals in the area of total compatibility. Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district.

#### Conclusions

The following conclusions are based on the data which have been presented in this study:

1. The most effective elementary principals have a greater desire to control other people than the least effective elementary principals.
2. The most effective senior high principals have a greater desire to include others in their activities than the least effective senior high principals. The former group also has a greater desire to control other people than the latter group.
3. The most effective large school elementary principals have a greater desire to control other people than the most effective small school elementary principals.

4. The most effective large school elementary principals have a greater desire to control other people than the least effective large school elementary principals.

5. The most effective small school senior high principals have a greater desire to include others in their activities than the least effective small school senior high principals. The former group also has a greater desire to control other people than the latter group.

6. The most effective elementary and senior high principals have a greater desire to control other people than the least effective elementary and senior high principals.

7. In the area of originator compatibility control, superintendents are more compatible with those elementary and senior high principals whom the superintendents did not select to accompany them to another school district than elementary and senior high principals who were selected.

8. There is a large number of comparisons for which no statistically significant differences were recorded; this finding in itself is a revealing factor not to be discounted.

#### Limitations

1. This study was limited to superintendents, elementary principals, and senior high principals employed by the 50 largest and 50 smallest public school districts in Iowa whose superintendents functioned in that capacity for at least three consecutive years.

2. Seventy-four superintendents, 84 elementary principals, and 78 senior high principals responded to the survey. It is conceivable that administrators employed by those school districts in which the

superintendents were either dissatisfied with the principals' performance or in which there was a high degree of interpersonal incompatibility felt threatened by the nature of this study and as a result were unwilling to participate. Therefore, the extent to which the respondents involved in this study constitute a truly representative sample may be somewhat questionable.

3. The validity and reliability of the Principal Evaluation Form utilized in this study has not been previously established. However, rating scales in general possess both low validity and reliability, especially when many different evaluators are involved in the rating process. Nevertheless, it is suggested that any lack of sensitivity of this technique to discriminate between the most effective and least effective principals is at least partially compensated for by utilizing the top and bottom quartiles for categorizing these subjects with respect to performance.

4. Compatibility as defined in this study is the property of a relation between two or more persons that leads to mutual satisfaction of interpersonal needs and a harmonious coexistence. It is best explained from a sociological standpoint by the relation "works well with." This element of a relationship was surveyed by asking superintendents the question, "if you were to be employed as a superintendent in another school district and a principal's position were available, would you take the principal being evaluated to work with you in this new setting?" It is conceivable that the superintendents answered this question from the viewpoint of effectiveness rather than simply from being able to "get along" and "work well with" the particular principal involved. Therefore, the concept of compatibility may be contaminated by a component of



effectiveness. There is not necessarily a direct relationship between the effectiveness of a principal and the superintendent's desire to work with the principal due to mutual need satisfaction.

5. There was a small number of subjects in a cell for several of the group comparisons of interpersonal relationships due to the fact that only the top and bottom quartiles were utilized to distinguish the most effective from the least effective elementary and senior high principals. However, in no case were there less than six subjects in a group for any of the comparisons made.

6. The definition of effectiveness utilized in this study was limited to only five criteria against which superintendents rated their principals. Undoubtedly there are additional criteria which could be used. Students, teachers and parents may view the performance of a principal from quite a different perspective than the superintendent and perhaps should be involved in the rating process to achieve a more comprehensive assessment.

#### Discussion

The results of this investigation demonstrated that interpersonal behavioral differences exist among public school principals when effectiveness, status, and school size are considered as independent variables. Compatibility data generated from the comparisons of the superintendents and their principals appeared to be relatively unproductive yielding information of limited practical value.

The most significant finding of this study was the apparent relationship between the administrative effectiveness of public school principals, as defined by the criteria specified in the Principal Evaluation Form, and

the score on the control expressed dimension of the FIRO-B. Considering effectiveness separate from either principal status or school size, the most effective principals scored significantly higher in the area of control expressed than the least effective principals. Perhaps this is not unusual nor unexpected since a higher expressed control score is indicative of individuals who attempt to exert control and influence over other people as well as take on the responsibilities involved in leadership. If a principal is to experience success in his dealings with students, teachers and parents, it is essential that he be capable of influencing and guiding the actions of other people. A relatively submissive individual who avoids making decisions and taking on responsibility will be unable to organize and implement a plan of action necessary to accomplish organizational purposes and goals.

However, the reader should be cautioned against assuming that merely because an individual possesses a relatively high desire to exert control over other people he will be an effective principal. The method by which he attempts to control others is an important consideration. A group in which a leader concentrates his efforts on helping its members operate as a unit is characterized by cooperation, enthusiasm, acceptance of greater responsibility, a sense of importance in the work being accomplished, and a recognition among members of the worth of each other. Under a group oriented approach to leadership, a leader is not concerned with achieving and maintaining personal authority. His chief purpose is to develop group power that will enable the staff to accomplish its goals. He does not conceive of his power as something apart from the power of the group. He is

concerned with developing the type of working relationship that will give him power "with" the group (64, pp. 38-39).

It should be recognized that the most effective small school elementary principals do not have a significantly greater desire to control other people than the least effective small school elementary principals. Perhaps it is not essential for principals in small schools to exert a higher degree of control over teachers and students because of the relatively close and intimate relationship fostered by the atmosphere of the small school. Since more opportunities are available for direct communication with consideration of ideas and feeling on a more personal level, less overt control is necessary to successfully administer a small elementary school. This generalization may also be at least partially supported by the fact that the most effective large school elementary principals exhibited a significantly greater need to control other people than the most effective small school elementary principals. Additionally, it should also be pointed out that the most effective large school elementary principals have a markedly greater desire to control others than the least effective large school elementary principals.

At the senior high level, the most effective principals have a greater desire to control other people than the least effective principals. This finding is certainly not unexpected considering the contemporary emphasis upon the increase in teacher militancy, greater demands by students for recognition of their rights, expansion of parental involvement in the educational process, and the stress being placed on accountability for the outcomes of instructional programs.

It would seem that a greater desire to control other people is necessary for a principal to be effective in a small school senior high since the most effective small school senior high principals scored significantly higher on the control expressed dimension of the FIRO-B than the least effective small school senior high principals. In addition, the most effective small school senior high principals scored higher in this area than the most effective large school senior high principals, although the difference was not large enough to achieve significance. This finding may be related to the fact that in larger high schools the principal has assistants who may deal much more directly in a controlling capacity with students and teachers. Therefore, it is not necessary that principals in large high schools exert direct control and consequently may be effective even though they may have less of a desire to control other people. On the other hand, the small school senior high principal must work more directly with students and teachers, unassisted by other administrators with the possible exception of some occasional intervention or assistance by his/her superintendent.

Once again considering elementary and senior high principals together, ignoring school size, those individuals in the most effective group appear to possess a greater desire to include others in their activities, to try to belong, to join social groups, and to be with people as much as possible than those individuals categorized as least effective. However, this inference should be considered highly tentative since this particular comparison did not attain any of the significance levels employed in this study.

The data gathered on the inclusion expressed dimension of the FIRO-B suggest that this factor is most important for senior high principals to be considered effective irrespective of school size. It is to be noted that the most effective senior high principals of both the largest and smallest schools in this sample scored significantly higher than the least effective senior high principals. It is recalled that inclusion expressed is a need to initiate interaction and association, to communicate, to attend to, to be interested in and to encounter other people.

Conceivably, superintendents and parents expect that the school principal will actively demonstrate an interest in the lives and activities of children as well as their parents. It is also important that the senior high school principal have a desire as well as an ability to communicate with individuals and groups, many of which may possess divergent views and opinions whether they be students, teachers, parents, or school patrons. Communication is perhaps even more essential for the senior high principal than the elementary principal due to the presence of potentially greater controversial elements inherent in high school level education.

In addition, the community looks to the senior high principal for leadership in areas which may not be directly related to education. He is expected to exercise this leadership by joining clubs and other organizations, especially those which are service-oriented by nature.

It is interesting to note that, while the difference was not significant, the most effective large school elementary principals exhibited a greater need to include others in their activities than the most effective small school elementary principals. Perhaps the elementary principals in large school districts are expected to become more actively involved in

community affairs and make themselves more readily accessible to students, parents and teachers. This area needs further exploration before any definite conclusions can be drawn.

The study of compatibility of superintendents with their principals was relatively unrevealing. It was hoped that if Schutz's theory of compatibility was shown to be applicable it could be employed in establishing more effective administrative teams. However, the present study failed to generate evidence to support the applicability of this theory as a means of selecting potential administrators.

Of the 13 hypotheses tested which were related to determining compatibility between group one superintendents and principals and group two superintendents and principals, there was only one significant difference observed. Group one consisted of superintendents and principals in which the superintendent would select the principals to go with him if he were to become employed in a new school district. Group two consisted of superintendents and principals in which the superintendent would not select the principals to go with him if he were to become employed in a new school district. The difference was at the .05 level in the area of originator compatibility control. This discovery implies that superintendents prefer to work with those principals with whom they are in competitive conflict, both administrators wanting to dominate and control the actions of the other with neither wanting to accept direction from the other. This finding is difficult to explain since, generally speaking, compatibility studies conducted on other groups employing the FIRO-B showed that the subjects select other people to work with whom they are most compatible. Perhaps superintendents who are in most cases aggressive individuals by nature

prefer the stimulation provided by interacting with subordinates who will not readily accept control from their superiors. The other possibility which seems more reasonable in light of the results of past studies in the area of compatibility is that this is one of the five times out of 100 in which a statistically significant difference occurred when in fact there was none.

#### Recommendations for Further Research

1. Consider sex as an independent variable since there is an increasingly large number of females who are assuming some of the positions in educational administration traditionally held by males.

2. Replicate this study utilizing a broader definition of effectiveness than the five criteria against which the superintendents rated their elementary and senior high principals. In addition, students, teachers, and parents who view the performance of the principals from a different perspective should also become involved in the rating process.

3. Conduct a longitudinal study in which recently employed elementary and senior high principals would respond to the FIRO-B. After a period of several years had elapsed, these same principals would once again fill out the FIRO-B survey form and be rated by their superintendents to determine their effectiveness. It would then be possible to assess extent to which the particular school environment and/or position influenced the formation of the interpersonal relationships of the principals. It is conceivable that environmental elements may contribute to the development of patterns of interpersonal relationships which are unique to principal effectiveness as opposed to factors which are more psychogenic in origin.

4. Investigate the patterns of interpersonal relationships among the most effective individuals in other public school administrative position categories such as assistant superintendents, directors of curriculum, personnel directors, directors of guidance, directors of elementary and secondary education, etc.

5. Replicate the compatibility section of this study clarifying for the superintendents that an indication that they would take a principal with them if the superintendents were to become employed in another school district is not necessarily related to their perception of the principal's effectiveness, but rather the superintendent's ability to work with the principal in a harmonious manner.

6. Study the interpersonal compatibility of the superintendent with other central office personnel.

7. Investigate additional factors thought to be associated with the effectiveness of elementary and senior high principals among the groups judged most effective in the present study and attempt to establish a relationship between dimensions of the FIRO-B and those other factors hypothesized to be associated with administrative success.



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APPENDIX A. PRINCIPAL PERFORMANCE EVALUATION FORM

# Principal Performance Evaluation

IDENTIFICATION NO. \_\_\_\_\_

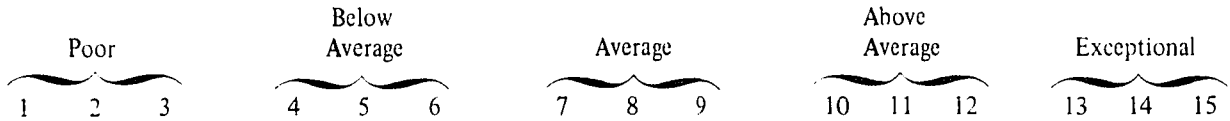
121

On a scale of 1 to 15 (1 poor to 15 exceptional) please circle the value for each area of responsibility based on how you think the principal being evaluated compares with other principals whom you have known in your experience as an administrator.

## AREA OF RESPONSIBILITY

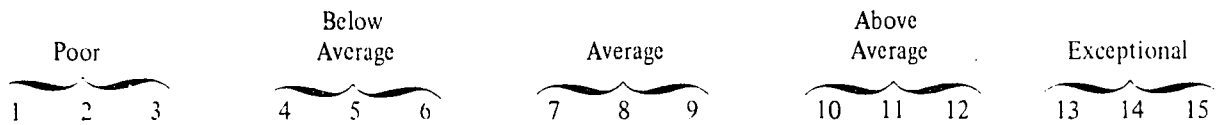
### 1. Office Management

Included are such things as budget preparation, ordering and dispensing supplies, accounting for money received and expended, and the development of policies and procedures for handling requisitions, announcements, and pupil attendance. Scheduling and reports to and from teachers, other district staff, the board, parents and state and federal agencies are also included.



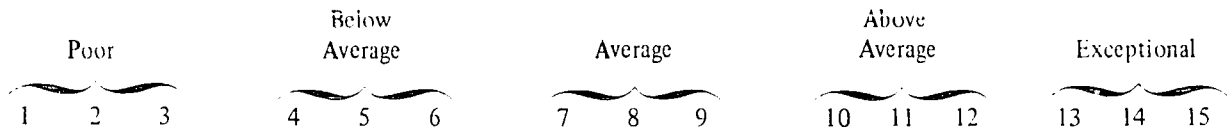
### 2. Staff Relationships

Included here are recruiting, interviewing and selecting candidates for appointment to staff vacancies. Scheduling teacher class assignments, conducting staff meetings, and implementing a communication pattern between the staff and the administration are part of this area. Developing policies and procedures for clarifying working relationships among teachers, custodial staff, administrators, other district personnel and students are also included. Work with other personnel functioning or having an interest in activities conducted in the building is part of this responsibility.



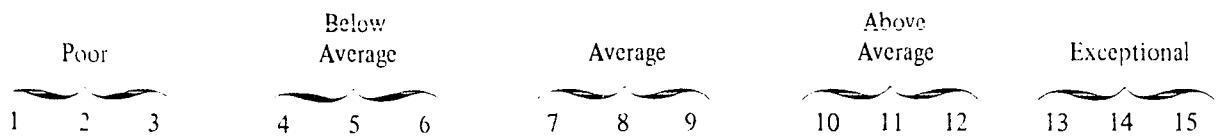
### 3. Student Relationships

The development of policies and procedures for student course selection, class scheduling, handling of student discipline and government, and extra-curricular activities are included here. Meetings with various student groups and clarification of relationships among students, faculty and administrators is also part of this responsibility.



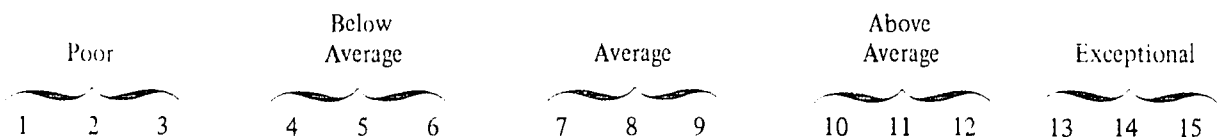
### 4. Community Relationships

Information interpreting school objectives, programs and progress including educational and informational meetings with parents and the public, press releases, and public speaking are involved. Relationships with civic groups, PTA, and others outside the school staff are part of this responsibility.



### 5. Instructional Leadership

Included here are activities such as curriculum design and revision, developing schedules related to teaching methods, and in-service education programs for the staff. Teacher evaluation and utilization of teacher talents and strengths in curricular and in-service programs are included. Providing help for staff who have questions or problems regarding course design, methods, or materials selection is part of this responsibility.



## PRINCIPAL SELECTION

Assuming that you were to be employed as a superintendent in another school district and a principal's position were available, please check below whether you would take the principal being evaluated to work with you in this new setting.

1. I would take him with me \_\_\_\_\_
2. I would not take him with me \_\_\_\_\_

## APPENDIX B. FIRO-B SURVEY INSTRUMENT

Directions: This questionnaire is designed to explore the typical ways you interact with people. There are, of course, no right or wrong answers; each person has his own ways of behaving. Sometimes people are tempted to answer questions like these in terms of what they think a person should do. This is not what is wanted here. We would like to know how you actually behave.

Some items may seem similar to others. However, each item is different so please answer each one without regard to the others. There is no time limit, but do not debate long over any item.

For each statement below, decide which of the following answers best applies to you. Place the number of the answer on the line at the left of the statement. Please be as honest as you can.

1. usually      2. often      3. sometimes      4. occasionally      5. rarely  
6. never

- |  |   |
|--|---|
| _____ 1. I try to be with people.  | _____ 9. I try to include other people in my plans.                   |
| _____ 2. I let other people decide what to do.                           | _____ 10. I let other people control my actions.                      |
| _____ 3. I join social groups.   | _____ 11. I try to have people around me.                             |
| _____ 4. I try to have close relationships with people.                  | _____ 12. I try to get close and personal with people.                |
| _____ 5. I tend to join social organizations when I have an opportunity. | _____ 13. When people are doing things together, I tend to join them. |
| _____ 6. I let other people strongly influence my actions.               | _____ 14. I am easily led by people.                                  |
| _____ 7. I try to be included in informal social activities.             | _____ 15. I try to avoid being alone.                                 |
| _____ 8. I try to have close, personal relationships with people.        | _____ 16. I try to participate in group activities.                   |



For each of the next group of statements, choose one of the following answers:

1. most people      2. many people      3. some people      4. a few people      5. one or two people      6. nobody

- \_\_\_\_\_ 17. I try to be friendly to people.
- \_\_\_\_\_ 18. I let other people decide what to do.
- \_\_\_\_\_ 19. My personal relations with people are cool and distant.
- \_\_\_\_\_ 20. I let other people take charge of things.
- \_\_\_\_\_ 21. I try to have close relationships with people.
- \_\_\_\_\_ 22. I let other people strongly influence my actions.
- \_\_\_\_\_ 23. I try to get close and personal with people.
- \_\_\_\_\_ 24. I let other people control my actions.
- \_\_\_\_\_ 25. I act cool and distant with people.
- \_\_\_\_\_ 26. I am easily led by people.
- \_\_\_\_\_ 27. I try to have close personal relationships with people.

For each of the next group of statements, choose one of the following answers:

1. most people      2. many people      3. some people      4. a few people      5. one or two people      6. nobody

- \_\_\_\_\_ 28. I like people to invite me to things.
- \_\_\_\_\_ 29. I like people to act close and personal with me.
- \_\_\_\_\_ 30. I try to influence strongly other people's actions.
- \_\_\_\_\_ 31. I like people to invite me to join in their activities.
- \_\_\_\_\_ 32. I like people to act close toward me.
- \_\_\_\_\_ 33. I try to take care of things when I am with people.
- \_\_\_\_\_ 34. I like people to include me in their activities.
- \_\_\_\_\_ 35. I like people to act cool and distant toward me.
- \_\_\_\_\_ 36. I try to have other people do things the way I want them done.
- \_\_\_\_\_ 37. I like people to ask me to participate in their discussions.
- \_\_\_\_\_ 38. I like people to act friendly toward me.
- \_\_\_\_\_ 39. I like people to invite me to participate in their activities.
- \_\_\_\_\_ 40. I like people to act distant toward me.

For each of the next group of statements, choose one of the following answers:

1. usually      2. often      3. sometimes      4. occasionally      5. rarely  
6. never

- |   |   |
|---|---|
| <p>_____ 41. I try to be the dominant person when I am with people.</p> <p>_____ 42. I like people to invite me to things.</p> <p>_____ 43. I like people to act close toward me.</p> <p>_____ 44. I try to have other people do things I want done.</p> <p>_____ 45. I like people to invite me to join their activities.</p> <p>_____ 46. I like people to act cool and distant toward me.</p> <p>_____ 47. I try to influence strongly other people's actions.</p> | <p>_____ 48. I like people to include me in their activities.</p> <p>_____ 49. I like people to act close and personal with me.</p> <p>_____ 50. I try to take charge of things when I'm with people.</p> <p>_____ 51. I like people to invite me to participate in their activities.</p> <p>_____ 52. I like people to act distant toward me.</p> <p>_____ 53. I try to have other people do things the way I want them done.</p> <p>_____ 54. I take charge of things when I'm with people.</p> |
|---|---|

## APPENDIX C. LETTER TO SCHOOL SUPERINTENDENTS

Dows, Iowa  
March 8, 1976

Dear Sir:

I am writing to request your participation in a dissertation study I am completing at Iowa State University. Please fill out the enclosed FIRO-B and request that your senior high principals and an equal number of elementary principals, with whom you are the most well acquainted, respond to a similar questionnaire. Please rate these principals using the enclosed Principal Evaluation Form being sure that the identification number in the upper right hand corner of the FIRO-B corresponds to the number on the evaluation form.

It is not necessary that names be indicated on the questionnaire or the evaluation form; however, it is essential that the position of each respondent be shown on the questionnaire, i.e. elementary principal, senior high principal, or superintendent. Please be assured that all participants in this study will remain anonymous.

Generally speaking, the purposes of this study are to identify response patterns of the most effective principals and to determine the degree of compatibility between these principals and their superintendents. The results of this research could assist superintendents in screening applicants for administrative positions as they become available in the local school districts.

Please return the completed FIRO-B questionnaires and the evaluation forms in the enclosed self-addressed stamped envelope.

Thank you for your cooperation in this study.

Sincerely,

Richard J. Larson  
Principal  
Dows High School

## APPENDIX D. SECOND LETTER TO SCHOOL SUPERINTENDENTS

Dows, Iowa  
April 8, 1976

Dear Sir:

Approximately three weeks ago I sent FIRO-B's and Principal Evaluation Forms to selected superintendents of Iowa school districts for use in my dissertation at Iowa State University. I have had a sizable return, but I need a 100 percent response if my study is to be valid.

If the survey instruments are still in your possession, would you please take some time to fill out the FIRO-B, requesting that your elementary and senior high principals do likewise, and complete the evaluation forms? I would appreciate it greatly, and I can assure you that your responses will be kept strictly anonymous.

The purposes of this study are to identify response patterns of the most effective principals and determine the degree of interpersonal compatibility between the principals and their superintendents. The results of this research could be utilized by superintendents and other central office administrators in selecting principal candidates possessing behavior patterns associated with the greatest probability of occupational success.

Thank you for your cooperation in this study. If you need additional copies of the FIRO-B or Principal Evaluation Forms, I will be happy to supply you with same.

Sincerely,

Richard J. Larson  
Principal  
Dows High School

APPENDIX E. PATTERNS OF INTERPERSONAL BEHAVIOR  
OF THE MOST EFFECTIVE ELEMENTARY PRINCIPALS  
AND SENIOR HIGH PRINCIPALS

Table 18. FIRO-B scales--expressed behavior of the most effective principals in the area of inclusion ( $I_e$ )

| Scale                         | Frequency  | Percentage               | Summed<br>percentage |
|-------------------------------|------------|--------------------------|----------------------|
| <u>Elementary principals</u>  |            |                          |                      |
| 9                             | 0          | 0.0                      | 100.0                |
| 8                             | 0          | 0.0                      | 100.0                |
| 7                             | 4          | 20.0                     | 100.0                |
| 6                             | 5          | 25.0                     | 80.0                 |
| 5                             | 4          | 20.0                     | 55.0                 |
| 4                             | 4          | 20.0                     | 35.0                 |
| 3                             | 1          | 5.0                      | 15.0                 |
| 2                             | 2          | 10.0                     | 10.0                 |
| 1                             | 0          | 0.0                      | 0.0                  |
| 0                             | 0          | 0.0                      | 0.0                  |
| N 20                          | Mean 5.050 | Standard Deviation 1.572 |                      |
| <u>Senior high principals</u> |            |                          |                      |
| 9                             | 0          | 0.0                      | 100.0                |
| 8                             | 0          | 0.0                      | 100.0                |
| 7                             | 5          | 27.8                     | 100.0                |
| 6                             | 3          | 16.7                     | 72.2                 |
| 5                             | 7          | 38.9                     | 55.6                 |
| 4                             | 1          | 5.6                      | 16.7                 |
| 3                             | 2          | 11.1                     | 11.1                 |
| 2                             | 0          | 0.0                      | 0.0                  |
| 1                             | 0          | 0.0                      | 0.0                  |
| 0                             | 0          | 0.0                      | 0.0                  |
| N 18                          | Mean 5.444 | Standard deviation 1.294 |                      |

Table 19. FIRO-B scales--wanted behavior of the most effective principals in the area of inclusion ( $I_w$ )

| Scale                         | Frequency  | Percentage               | Summed percentage |
|-------------------------------|------------|--------------------------|-------------------|
| <u>Elementary principals</u>  |            |                          |                   |
| 9                             | 1          | 5.0                      | 100.0             |
| 8                             | 1          | 5.0                      | 95.0              |
| 7                             | 5          | 25.0                     | 90.0              |
| 6                             | 2          | 10.0                     | 65.0              |
| 5                             | 0          | 0.0                      | 55.0              |
| 4                             | 5          | 25.0                     | 55.0              |
| 3                             | 1          | 5.0                      | 30.0              |
| 2                             | 1          | 5.0                      | 25.0              |
| 1                             | 1          | 5.0                      | 20.0              |
| 0                             | 3          | 15.0                     | 15.0              |
| N 20                          | Mean 4.500 | Standard deviation 2.819 |                   |
| <u>Senior high principals</u> |            |                          |                   |
| 9                             | 2          | 11.1                     | 100.0             |
| 8                             | 1          | 5.6                      | 88.9              |
| 7                             | 1          | 5.6                      | 83.3              |
| 6                             | 0          | 0.0                      | 77.8              |
| 5                             | 1          | 5.6                      | 77.8              |
| 4                             | 2          | 11.1                     | 72.2              |
| 3                             | 1          | 5.6                      | 61.1              |
| 2                             | 0          | 0.0                      | 55.6              |
| 1                             | 3          | 16.7                     | 55.6              |
| 0                             | 7          | 38.9                     | 38.9              |
| N 18                          | Mean 2.889 | Standard deviation 3.376 |                   |

Table 20. FIRO-B scales--expressed behavior of the most effective principals in the area of control (C<sub>e</sub>)

| Scale                         | Frequency  | Percentage               | Summed percentage |
|-------------------------------|------------|--------------------------|-------------------|
| <u>Elementary principals</u>  |            |                          |                   |
| 9                             | 3          | 15.0                     | 100.0             |
| 8                             | 3          | 15.0                     | 85.0              |
| 7                             | 1          | 5.0                      | 70.0              |
| 6                             | 3          | 15.0                     | 65.0              |
| 5                             | 4          | 20.0                     | 50.0              |
| 4                             | 2          | 10.0                     | 30.0              |
| 3                             | 0          | 0.0                      | 20.0              |
| 2                             | 4          | 20.0                     | 20.0              |
| 1                             | 0          | 0.0                      | 0.0               |
| 0                             | 0          | 0.0                      | 0.0               |
| N 20                          | Mean 5.600 | Standard deviation 2.437 |                   |
| <u>Senior high principals</u> |            |                          |                   |
| 9                             | 2          | 11.1                     | 100.0             |
| 8                             | 0          | 0.0                      | 88.9              |
| 7                             | 5          | 27.8                     | 88.9              |
| 6                             | 3          | 16.7                     | 61.1              |
| 5                             | 3          | 16.7                     | 44.4              |
| 4                             | 4          | 22.2                     | 27.8              |
| 3                             | 1          | 5.6                      | 5.6               |
| 2                             | 0          | 0.0                      | 0.0               |
| 1                             | 0          | 0.0                      | 0.0               |
| 0                             | 0          | 0.0                      | 0.0               |
| N 18                          | Mean 5.833 | Standard deviation 1.724 |                   |

Table 21. FIRO-B scales--wanted behavior of the most effective principals in the area of control (C<sub>w</sub>)

| Scale                         | Frequency  | Percentage               | Summed percentage |
|-------------------------------|------------|--------------------------|-------------------|
| <u>Elementary principals</u>  |            |                          |                   |
| 9                             | 2          | 10.0                     | 100.0             |
| 8                             | 0          | 0.0                      | 90.0              |
| 7                             | 0          | 0.0                      | 90.0              |
| 6                             | 0          | 0.0                      | 90.0              |
| 5                             | 4          | 20.0                     | 90.0              |
| 4                             | 3          | 15.0                     | 70.0              |
| 3                             | 6          | 30.0                     | 55.0              |
| 2                             | 4          | 20.0                     | 25.0              |
| 1                             | 1          | 5.0                      | 5.0               |
| 0                             | 0          | 0.0                      | 0.0               |
| N 20                          | Mean 3.850 | Standard deviation 2.110 |                   |
| <u>Senior high principals</u> |            |                          |                   |
| 9                             | 1          | 5.6                      | 100.0             |
| 8                             | 0          | 0.0                      | 94.4              |
| 7                             | 2          | 11.1                     | 94.4              |
| 6                             | 1          | 5.6                      | 83.3              |
| 5                             | 2          | 11.1                     | 77.8              |
| 4                             | 3          | 16.7                     | 66.7              |
| 3                             | 4          | 22.2                     | 50.0              |
| 2                             | 3          | 16.7                     | 27.8              |
| 1                             | 1          | 5.6                      | 11.1              |
| 0                             | 1          | 5.6                      | 5.6               |
| N 18                          | Mean 3.889 | Standard deviation 2.298 |                   |



Table 22. FIRO-B scales--expressed behavior of the most effective principals in the area of affection ( $A_e$ )

| Scale                         | Frequency  | Percentage               | Summed percentage |
|-------------------------------|------------|--------------------------|-------------------|
| <u>Elementary principals</u>  |            |                          |                   |
| 9                             | 0          | 0.0                      | 100.0             |
| 8                             | 3          | 15.0                     | 100.0             |
| 7                             | 1          | 5.0                      | 85.0              |
| 6                             | 2          | 10.0                     | 80.0              |
| 5                             | 2          | 10.0                     | 70.0              |
| 4                             | 1          | 5.0                      | 60.0              |
| 3                             | 5          | 25.0                     | 55.0              |
| 2                             | 1          | 5.0                      | 30.0              |
| 1                             | 5          | 25.0                     | 25.0              |
| 0                             | 0          | 0.0                      | 0.0               |
| N 20                          | Mean 3.950 | Standard deviation 2.523 |                   |
| <u>Senior high principals</u> |            |                          |                   |
| 9                             | 1          | 5.6                      | 100.0             |
| 8                             | 1          | 5.6                      | 94.4              |
| 7                             | 0          | 0.0                      | 88.9              |
| 6                             | 2          | 11.1                     | 88.9              |
| 5                             | 1          | 5.6                      | 77.8              |
| 4                             | 2          | 11.1                     | 72.2              |
| 3                             | 7          | 38.9                     | 61.1              |
| 2                             | 2          | 11.1                     | 22.2              |
| 1                             | 2          | 11.1                     | 11.1              |
| 0                             | 0          | 0.0                      | 0.0               |
| N 18                          | Mean 3.833 | Standard deviation 2.203 |                   |

Table 23. FIRO-B scales--wanted behavior of the most effective principals in the area of affection ( $A_w$ )

| Scale                         | Frequency  | Percentage               | Summed percentage |
|-------------------------------|------------|--------------------------|-------------------|
| <u>Elementary principals</u>  |            |                          |                   |
| 9                             | 0          | 0.0                      | 100.0             |
| 8                             | 6          | 30.0                     | 100.0             |
| 7                             | 1          | 5.0                      | 70.0              |
| 6                             | 1          | 5.0                      | 65.0              |
| 5                             | 4          | 20.0                     | 60.0              |
| 4                             | 0          | 0.0                      | 40.0              |
| 3                             | 4          | 20.0                     | 40.0              |
| 2                             | 1          | 5.0                      | 20.0              |
| 1                             | 2          | 10.0                     | 15.0              |
| 0                             | 1          | 5.0                      | 5.0               |
| N 20                          | Mean 4.850 | Standard deviation 2.720 |                   |
| <u>Senior high principals</u> |            |                          |                   |
| 9                             | 2          | 11.1                     | 100.0             |
| 8                             | 1          | 5.6                      | 88.9              |
| 7                             | 0          | 0.0                      | 83.3              |
| 6                             | 1          | 5.6                      | 83.3              |
| 5                             | 7          | 38.9                     | 77.8              |
| 4                             | 2          | 11.1                     | 38.9              |
| 3                             | 0          | 0.0                      | 27.8              |
| 2                             | 0          | 0.0                      | 27.8              |
| 1                             | 3          | 16.7                     | 27.8              |
| 0                             | 2          | 11.1                     | 11.1              |
| N 18                          | Mean 4.333 | Standard deviation 2.808 |                   |