



Western Michigan University
ScholarWorks at WMU

Dissertations

Graduate College

4-1971

An Investigation of Selected Variables Related to the Rating of School Administrator Effectiveness

Robert Lee Hansen
Western Michigan University

Follow this and additional works at: <https://scholarworks.wmich.edu/dissertations>



Part of the Educational Administration and Supervision Commons

Recommended Citation

Hansen, Robert Lee, "An Investigation of Selected Variables Related to the Rating of School Administrator Effectiveness" (1971). *Dissertations*. 3020.

<https://scholarworks.wmich.edu/dissertations/3020>

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact wmu-scholarworks@wmich.edu.



AN INVESTIGATION OF SELECTED
VARIABLES RELATED TO THE RATING OF SCHOOL
ADMINISTRATOR EFFECTIVENESS

by

Robert L.^{ee} Hansen

A Dissertation
Submitted to the
Faculty of the Graduate College
in partial fulfillment
of the
Degree of Doctor of Education

Western Michigan University
Kalamazoo, Michigan
April 1971

ACKNOWLEDGEMENTS

The assistance and support in the development and completion of this study by William D. Coats, Donald C. Weaver and Clyde R. Willis is gratefully acknowledged.

I am also indebted to the Mott Inter-University Clinical Preparation Program and the Western Michigan University Educational Leadership Department for both financial and academic support.

A special word of appreciation is extended to William D. Coats whose foresight and concern made this study possible.

The assistance offered by Dale Wilson as we developed and carried out companion studies is also gratefully acknowledged.

To Rosemary, whose encouragement and understanding can only be fully appreciated by me, goes my deepest gratitude.

Robert L. Hansen

71-23,148

HANSEN, Robert Lee, 1929-
AN INVESTIGATION OF SELECTED VARIABLES RELATED
TO THE RATING OF SCHOOL ADMINISTRATOR
EFFECTIVENESS.

Western Michigan University, Ed.D., 1971
Education, administration

University Microfilms, A XEROX Company, Ann Arbor, Michigan

THIS DISSERTATION HAS BEEN MICROFILMED EXACTLY AS RECEIVED

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

TABLE OF CONTENTS

CHAPTER		PAGE
I	INTRODUCTION TO THE PROBLEM	1
	Introduction	1
	Purposes of the Study	4
	Definition of Terms	7
	Significance of the Study	9
	Scope and Limitations of the Study	10
	Overview	11
II	RATIONALE AND RELATED LITERATURE	12
	Introduction	12
	Administrative Effectiveness	14
	Components of Administrator Effectiveness	17
	Group Ratings of Administrators	29
	Summary	33
III	RESEARCH DESIGN AND METHODOLOGY	35
	Research Design	35
	Description of the Sample	36
	Description of Variables and Instruments	38
	Procedures	44
	Data Treatment	46

TABLE OF CONTENTS (Continued)

CHAPTER		PAGE
IV	RESULTS	49
	Review of the Problem	49
	Findings	50
	Question 1 -- Factor Analysis	50
	Question 2 -- Idiographic Variables	60
	Question 3 -- Demographic Variables	69
	Question 4 -- Situational Variables	80
	Question 5 -- Interaction of Variables	85
	Summary	89
V	SUMMARY, CONCLUSIONS, AND IMPLICATIONS	92
	Summary of Findings	92
	Conclusions	94
	Implications	100
	SELECTED BIBLIOGRAPHY	105
	APPENDICES	
	A. ADMINISTRATOR IMAGE QUESTIONNAIRE	109
	B. GROUP ID FORM	112
	C. ADMINISTRATOR ID FORM	114
	D. ADMINISTRATOR IMAGE PROFILE	115
	E. INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- ELEMENTARY PRINCIPALS	117
	F. FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- ELEMENTARY PRINCIPALS	118
	G. INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- JUNIOR HIGH PRINCIPALS	119

TABLE OF CONTENTS (Continued)

APPENDICES	PAGE
H. FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- JUNIOR HIGH SCHOOL PRINCIPALS	120
I. INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- HIGH SCHOOL PRINCIPALS	121
J. FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- HIGH SCHOOL PRINCIPALS	122
K. INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- ASSISTANT SUPERINTENDENTS	123
L. FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- ASSISTANT SUPERINTENDENTS	124
M. INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- SUPERINTENDENTS	125
N. FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- SUPERINTENDENTS	126
O. INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- TEACHER EVALUATOR GROUPS	127
P. FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- TEACHER EVALUATOR GROUPS	128
Q. INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- ADMINISTRATOR EVALUATOR GROUPS	129
R. FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- ADMINISTRATOR EVALUATOR GROUPS	130
S. INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- SERVICE PERSONNEL EVALUATOR GROUPS	131
T. FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- SERVICE PERSONNEL EVALUATOR GROUPS	132

LIST OF TABLES

TABLE		PAGE
1	THE ASSESSMENT OF ADMINISTRATIVE EFFECTIVENESS . .	16
2	NUMBER OF RATERS FOR ADMINISTRATOR POSITIONS . . .	37
3	NUMBER OF RATERS FOR EVALUATOR GROUPS	38
4	NUMBERS OF ADMINISTRATORS AND EVALUATORS	51
5	INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- ALL GROUPS AND ALL ADMINISTRATORS	52
6	FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR ADMINISTRATOR IMAGE QUESTIONNAIRE -- ALL GROUPS AND ALL ADMINISTRATORS	53
7	FACTOR LOADINGS FOR FIVE ADMINISTRATOR POSITIONS	57
8	FACTOR LOADINGS FOR FIVE POSITIONS AND THREE GROUP TYPES	60
9	SUMMARY AND ANALYSIS OF VARIANCE FOR ADMINISTRATOR POSITION	62
10	SUMMARY AND ANALYSIS OF VARIANCE FOR HIGHEST DEGREE HELD BY ADMINISTRATOR	63
11	SUMMARY AND ANALYSIS OF VARIANCE FOR ADMINISTRATOR AGE	64
12	COMPARISON BETWEEN RATINGS FOR VARIOUS LEVELS OF ADMINISTRATOR AGE	65
13	SUMMARY AND ANALYSIS OF VARIANCE FOR ADMINISTRATOR YEARS IN PRESENT POSITION	66
14	COMPARISON BETWEEN RATINGS FOR VARIOUS LEVELS OF ADMINISTRATOR YEARS IN PRESENT POSITION	67
15	SUMMARY AND ANALYSIS OF VARIANCE FOR ADMINISTRATOR TOTAL YEARS EXPERIENCE IN ADMINISTRATION	68

LIST OF TABLES (Continued)

TABLE		PAGE
16	SUMMARY AND ANALYSIS OF VARIANCE FOR PERCENTAGE OF MALES AND FEMALES IN EVALUATOR GROUP	71
17	SUMMARY AND ANALYSIS OF VARIANCE FOR AVERAGE AGE OF MEMBERS IN EVALUATOR GROUP	72
18	SUMMARY AND ANALYSIS OF VARIANCE FOR TEACHER GROUP EXPERIENCE IN SCHOOL SYSTEM	73
19	SUMMARY AND ANALYSIS OF VARIANCE FOR NUMBER OF EVALUATORS IN EVALUATOR GROUPS	74
20	COMPARISON BETWEEN RATINGS BY VARIOUS SIZE EVALUATOR GROUPS	75
21	SUMMARY AND ANALYSIS OF VARIANCE FOR TYPE OF EVALUATOR GROUP	76
22	COMPARISON BETWEEN RATINGS BY VARIOUS TYPES OF EVALUATOR GROUPS	77
23	SUMMARY AND ANALYSIS OF VARIANCE FOR EDUCATIONAL LEVEL OF EVALUATOR GROUPS	78
24	COMPARISON BETWEEN RATINGS FOR EVALUATOR GROUPS OF VARIOUS EDUCATIONAL LEVELS	79
25	SUMMARY AND ANALYSIS OF VARIANCE FOR SOCIO- ECONOMIC STATUS OF COMMUNITY	81
26	EXTENT OF AGREEMENT BETWEEN GROUP IMAGE AND ADMINISTRATOR IMAGE	82
27	COMPOSITION OF GROUPS WHO RATED AND WERE RATED BY ADMINISTRATORS	83
28	EXTENT OF AGREEMENT BETWEEN GROUP IMAGE AND ADMINISTRATOR IMAGE FOR SIX POSITIONS	84
29	SUMMARY AND ANALYSIS OF VARIANCE FOR ADMINISTRATOR AGE AND GROUP AGE	86
30	SUMMARY AND ANALYSIS OF VARIANCE FOR ADMINISTRATOR POSITION AND ADMINISTRATOR AGE	87

LIST OF TABLES (Continued)

TABLE		PAGE
31	SUMMARY AND ANALYSIS OF VARIANCE FOR SOCIO- ECONOMIC LEVEL AND DEGREE LEVELS	89
32	LEVEL OF CONFIDENCE AND STRENGTH OF ASSOCIA- TION FOR INDEPENDENT VARIABLES	90
*		

*See Appendices E through T.

LIST OF FIGURES

FIGURE		PAGE
1	Group Rating Scale	43
2	Example Profile for Four Items	45

CHAPTER I

INTRODUCTION TO THE PROBLEM

Introduction

School administrator effectiveness is of vital concern to many, particularly those responsible for preparing and employing educators. Effective school administration is crucial to students, teachers, and parents and takes on critical significance for the school administrator who hopes to assure his effectiveness. It is frequently postulated:

The effectiveness of a school or school system is greatly influenced, if not fully determined, by the quality of its administration. The administrator is a key figure in maintaining the present educational level of the school program and in guiding its further development. His vision of needed school improvements influences the aspirations of others. His understanding and skill in human relations may affect potential leadership by releasing the drive and intelligence of the faculty, the parents, and community leaders, and of children and adults attending the school. (Jenkins, 1956, p. 1)

Determining the effectiveness of an administrator in a school or school system is complex. Numerous researchers have undertaken the task of identifying and measuring school administrator effectiveness. A review of the literature revealed that researchers utilized a wide range of criteria and assumed various frames of reference in their studies of effectiveness. The studies of effectiveness reviewed were designed for a variety of purposes such as predicting administrator success, testing theoretical constructs, and providing feedback for the improvement of administrator effectiveness.

Social scientists have focused their attention on a variety of variables in their attempts to measure administrator or leader effectiveness. Schutz (1966, Chap. 3, p. 1) assigned studies of administrative effectiveness to four classifications:

- 1) Character traits: studies which focus on the individual properties of the administrator as predictors of administrative performance.
- 2) Group factors: studies which focus on the interplay of factors present in the group situation as determinants of administrator behavior.
- 3) Role expectations: studies concerned with the internal attitudes and perceptions of both leaders and followers and the relation of these attitudes to administrative success.
- 4) Organizational models: studies which use the forces within the total organization to understand the actions of the administrator.

A review of the literature indicated that group perceptions of administrators are considered by many to be useful sources of information relative to administrator effectiveness. However, there is disagreement as to the meaning and inferences that can be drawn from such measures of group perceptions. The purpose of this study was to examine the relationships between selected variables believed to be related to group ratings of administrators in order to further clarify the meaning of group ratings.

A number of theorists have studied and subsequently emphasized the relationship between the evaluator's point of view and measurements of administrator effectiveness. Generally these theorists contend that effectiveness is relative to perception and a definition of effectiveness must consider the point of view of the participants in the social system.

Research indicates that there are two underlying variables, influencing a leader's performance, which appear in administrative ratings of effectiveness. Coats (1970, p. 1) suggests that, "Social scientists generally view behavior of group leaders as loading on essentially two factors. Although these factors have been given a number of different labels by researchers, they may be thought of as (1) person-centered and (2) organization-centered."

The purposes of this study were met by examining group ratings of administrators and other related data to determine to what degree evaluators responded primarily to questions posed in administrator ratings and to what degree they were influenced by other factors when rating an administrator. The criterion measure, an administrator rating instrument, was factor analyzed to determine the number and nature of factors measured. The study also examined selected idiographic variables descriptive of administrators, selected demographic variables descriptive of groups who rated administrators, and selected situational variables descriptive of the circumstances in which ratings were conducted. This examination was based on the premise that rating administrator effectiveness is a process in which an individual administrator is judged by specific evaluators on particular administrative functions in a defined situation, and that evaluators use certain criteria pertaining to the points of view of the society, the social system, or the individual.

Purposes of the Study

The problem to be investigated is the nature of relationships between selected variables believed to be related to group ratings of administrator effectiveness. The specific purposes of this study were to investigate the following questions:

1. What are the number and nature of factors which underlie group perception of administrators?
 - A. Are the number and nature of factors that underlie group perception of administrators similar for elementary school principals, junior high school principals, high school principals, assistant school superintendents, and school superintendents?
 - B. Are the number and nature of factors that underlie group perceptions of administrators similar for teacher groups, administrator groups, and service personnel groups?
2. What are the relationships between selected idiographic variables descriptive of administrators and group perception of administrator effectiveness?
 - A. Is there a relationship between the position held by administrators and administrator image?
 - B. Is there a relationship between the highest degree held by administrators and administrator image?
 - C. Is there a relationship between the age of administrators and administrator image?

- D. Is there a relationship between the number of years administrators have been employed in their position and administrator image?
 - E. Is there a relationship between the total number of years administrators have been employed as a school administrator and administrator image?
3. What are the relationships between selected demographic variables descriptive of evaluator groups and their perception of administrator effectiveness?
- A. Is there a relationship between the percentage of males and females in a teacher group and administrator image?
 - B. Is there a relationship between the average age of members in the teacher group and administrator image?
 - C. Is there a relationship between the years of experience teachers have in the school system and their rating of administrator image?
 - D. Is there a relationship between the number of evaluators in a teacher group and administrator image?
 - E. Is there a relationship between the type of group (teachers, administrators, service personnel, board members) rating an administrator and administrator image?
 - F. Is there a relationship between the educational level of the group rating an administrator and administrator image?

4. What are the relationships between selected situational variables and group perception of administrator effectiveness?
 - A. Is there a relationship between the socio-economic status of the community and administrator image?
 - B. Is there a relationship between administrator ratings of teachers and teacher ratings of administrators?
 - C. Is the relationship between group image and administrator image similar for superintendents, assistant superintendents, high school principals, junior high school principals, elementary school principals, and assistant principals?
5. What are the relationships between the interaction of selected idiographic, demographic, and situational variables and group perception of administrator effectiveness?
 - A. Is there a relationship between the interaction of average group age and administrator age with administrator image?
 - B. Is there a relationship between the interaction of the position held by administrators and age of the administrator with administrator image?
 - C. Is there a relationship between the interaction of the socio-economic status of the community and highest degree held by administrators with administrator image?

Procedures for investigating each of the foregoing questions are presented in Chapter III. These procedures were made possible by use of data available through the Educator Feedback Center at Western Michigan University. Personnel at the Educator Feedback Center have developed and used extensively a popular instrument designed to measure group perception of administrator characteristics purported to be related to administrator effectiveness. This instrument, The Administrator Image Questionnaire, (AIQ), solicits individual opinion on 23 questions related to administrator effectiveness. Data from 7004 administrator ratings using the AIQ were analyzed.

Definition of Terms

The following definitions were adopted to specifically delineate terms used throughout the study:

1. School administrator: An individual who has been designated as responsible for leading, managing, or controlling an educational system or any of the system's units. Specifically included in this study are: school superintendents, assistant superintendents, principals, assistant principals, department heads, division heads, business managers, and project directors.
2. Evaluator group: A collection of individuals associated with some common purpose who are called upon to apply one or more criterion to judge school administrator effectiveness. Teachers, administrators, boards of education, students, and service personnel are included in this study.

3. Administrator image: The perception others have of an executive authority's attitude, skill, knowledge, and behavior as represented by the mean score obtained on the 23 item Administrator Image Questionnaire used by the Educator Feedback Center of Western Michigan University.
4. Idiographic variables: Individual properties that take on different values. These properties describe characteristics of individual administrators such as: sex, age, administrative experience, and highest degree held.
5. Demographic variables: Group properties that take on different values. These properties describe group characteristics such as: ratio of females to males, average age, number of members in the group, ratio of group members with less than three years of teaching experience, four to ten years of teaching experience, and eleven or more years of teaching experience.
6. Community socio-economic status: A combination of social and financial factors descriptive of the residents of a school system. In the present study administrators who were rated, designated the socio-economic status of the community served by the school as low, middle, or high.
7. Evaluator group image: The perception an administrator held of a group who evaluated him. Evaluator group image scores were obtained by averaging the scores the administrator assigned to the group's competence, industry,

enthusiasm, and friendliness on the scale provided in the AIQ, GROUP ID FORM.

8. Situational variables: A combination of circumstances descriptive of a particular setting that takes on different values. These circumstances are descriptive of the interaction between people and/or things. In the present study socio-economic status and evaluator group image are classified as situational variables.

Significance of the Study

Rating instruments are often used to provide administrators with feedback regarding the way they are perceived by others. Ratings of administrators are also used to predict administrator success and to investigate the dimensions of leadership. The significance of this research project lies in the attempt to provide further insights into the relationships between variables descriptive of administrators, evaluators, and their situations as those variables relate to administrator ratings.

The study is considered valuable if it identifies relationships between variables of administrator ratings. Much of the concern and subsequent action stimulated by administrator ratings could be more usefully employed if the relative importance of variables were qualified. The administrator who knows the influence that certain variables exert upon the rating of his effectiveness will be better able to interpret his rating. Those persons responsible for educating, training, selecting, retaining, or promoting administrators may wish

to consider the strength and direction of the relationships examined by this study when carrying out their responsibilities. Finally, the relationships identified by this study may provide researchers with additional information useful in their studies of administrator effectiveness.

Scope and Limitations of the Study

The study used data made available by the Educator Feedback Center at Western Michigan University. Data from all administrators who were rated during the 1968-69 and 1969-70 school years were used. The data represented 7004 ratings of 249 administrators who were employed in schools in Michigan, Ohio, Indiana, Illinois, and Wisconsin with a small number from other states. The 303 groups who rated the administrators were composed largely of teachers, with administrators and others providing a much smaller number of ratings.

The study was limited by factors common to research of this type. Independent variables were not manipulated due to the use of available data.

Subscription to the Educator Feedback Service is voluntary. It has been suggested by some users and some observers of the feedback service that it takes courage to invite the kind of criticism contained in a reaction report. For this and similar reasons inherent in the use of self-selected subjects, caution should be exercised in inferring findings of this study to administrators in general.

The results of the study should be interpreted as indicative of the association between and among the selected variables and administrator image, but not as showing causal relationships.

Overview

The study was reported in five chapters. Chapter I included an introduction which presented an orientation to the problem, purposes of the study, questions to be investigated, definition of terms, the significance of the study, and the scope and limitations of the study.

In Chapter II a rationale for the study, based on data and opinions from the review of related literature, was developed. Three areas pertaining to the study were investigated: (1) Administrative Effectiveness, (2) Components of Administrator Effectiveness, and (3) Administrator Ratings.

The research design and methodology were detailed in Chapter III. Research design, sample, variables and instrumentation, procedures, and data treatment were considered. Chapter IV contained an analysis of the data. The chapter consisted of seven parts: (1) Review of the Problem, (2) Factor Analysis, (3) Idiographic Variables, (4) Demographic Variables, (5) Situational Variables, (6) Interaction Between Variables, and (7) Summary. Related conclusions, implications and recommendations were presented in Chapter V. In the following chapter a review of literature and a rationale for the study were developed.

CHAPTER II

RATIONALE AND RELATED LITERATURE

The purpose of this chapter is to present a rationale for the study based on research and opinions from a review of the literature. The chapter is composed of five parts: (1) Introduction, (2) Administrative Effectiveness, (3) Components of Administrator Effectiveness, (4) Group Ratings of Administrators, and (5) Summary.

Introduction

An extensive quantity of literature has accumulated over the years related to administration. Despite this fact, there remains considerable discrepancy among theorists, observers, researchers, administrators, and leaders in defining and measuring effective administration and/or leadership. Stout and Briner (1969, p. 699) in their discussion of leadership for the Encyclopedia of Education

Research state:

Leadership theory has been a subject which has enticed a large number of scholars into an even larger number of investigations. Such effort has resulted in the production of a great volume of research, a happy phenomenon in the behavioral sciences. However, a less happy phenomenon is that the research evidence is often contradictory and is always difficult to evaluate.

The authors point out that the plethora of definitions for leadership are a further difficulty in evaluating leadership research. Stout and Briner also observe that a researcher limits the phenomena he will observe by definition and, therefore, a reader is never confident that research findings based on different definitions are comparable.

Simon (1968, p. 74) indicates that only since World War II has there been any considerable amount of research and writing on administration emphasizing a behavioral approach, and this research is fast becoming a torrent.

The purpose of this study was to investigate variables related to the rating of school administrator effectiveness. In keeping with this purpose school administration is viewed in a broad sense. School administration is viewed as encompassing leadership and organizational maintenance as well as goal achievement as directed by the governing body's policies.

This study is based on the assumption that the interaction between several variables makes up the total effectiveness rating of an administrator. In seeking to examine the relationships between and among selected variables of group ratings it was deemed necessary to first define administrative effectiveness as it was viewed for the purposes of this paper. Second, it was essential to provide a framework for the assessment of administrator effectiveness that was broad enough in scope to include major widely-accepted factors of effectiveness. Finally, an examination of current literature regarding the nature, limitations, and strengths of effectiveness was called for. Following the proposed plan for establishing the rationale for this study, an orientation to and definition of administrative effectiveness was developed.

Administrative Effectiveness

In the broadest sense, effectiveness implies adequacy to accomplish a purpose. An effective school administrator is expected to be instrumental in achieving the goals of the administrative unit he heads.

The definition of effectiveness in administration has evolved and become a more comprehensive concept as a parallel of the study in administration and leadership. Barnard (1938) made a distinction between effectiveness and efficiency. He also pointed out that both effectiveness and efficiency depend on the point of assessment.

Getzels, Lipham, and Campbell (1968, p. 127-129), following Barnard's idea, further defined effectiveness and efficiency. They explain effectiveness as "a measure of the concordance of the role behavior and the role expectations" and efficiency as "a function of the congruence of behavior and expectations." This explanation assigned effectiveness to the nomothetic dimension of the social system and efficiency to the idiographic dimension of the social system.

Boles (1969, pp. 190-192) defines the meaning of effectiveness and efficiency for society, social system, and individual. He clarifies the concept of effectiveness and efficiency and offers a concept conducive to the assessment of effectiveness and efficiency. Boles (1969, p. 190) states: "In general, a social system is seen as effective [by society] if it is meeting the expectations held for it. . . . Efficiency is generally considered as the ratio of outputs to inputs." Effectiveness from a social system's point of view is,

"its accomplishment of the goals that it has set for itself, which are social and non-personal in nature" and efficiency "is the extent to which it [social system] satisfies individual need-dispositions, and is personal in nature." Boles goes on to define effectiveness from the individual's point of assessment as, "the measure of how well his need-dispositions are accommodated by the social system--how well his expectations are being met. If the needs themselves are satisfied, without offsetting dissatisfaction, the system is also efficient." The preceding view defines effectiveness and efficiency as being descriptive of both the nomothetic and idiographic dimensions of a social system, the paramount consideration being the point of view.

The problem is further clarified by Boles (1969, p. 207):

Effectiveness may be evaluated by the individual in terms of how well his expectations are being met. Efficiency may be evaluated in terms of how well his needs are being satisfied without offsetting dissatisfactions. Thus, a leader can determine how effective and/or efficient he and the social system are from his point of view. He will need the assistance of internal feedback, however, to determine how effective and/or efficient he is perceived to be by others.

The present study was designed to examine variables related to effectiveness. The preceding references to efficiency were included in order to make the definition of effectiveness as complete as possible. Efficiency is not examined in this study. Adapting Barnard's, Getzel's et al, and Boles' definitions and concepts of effectiveness, the following table was developed.

TABLE 1
THE ASSESSMENT OF ADMINISTRATIVE EFFECTIVENESS

To Be Assessed	Point of View	Measure of Effectiveness
<u>Social System</u>	Social System	attainment of goals for social system set by the social system
	Society	attainment of expectations held by society for the social system
	Individual	attainment of needs of individual in the social system
<u>Society</u>	Social System	contribution toward attaining goals set for social system by social system
	Society	contribution toward attaining expectations held by society for social system
	Individual	contribution toward meeting needs of individual in social system
<u>Individual</u>	Social System	contribution to attainment of goals set for social system by social system
	Society	contribution toward expectations held by society for social system
	Individual	contribution toward meeting needs of individual in social system

Social systems and societies are not of one mind. The judgments of both are the collective judgments of the people they represent. Individuals have at least two judgments to make in a complete administrative assessment, one as an integral part of the social system or society and one as an individual. This distinction

is important when developing or interpreting measures for assessment of administrator effectiveness.

In the preceding quotation, Boles suggests that the leader [administrator] will need the assistance of internal feedback to determine how effective he is perceived to be by others. The Administrator Image Questionnaire was designed to provide feedback to administrators. It was constructed to measure an individual's perception of an administrator, his attitudes, understandings, skills, and behavior. Individual ratings are combined to form a group rating which is presented in a profile (see Appendix D for a sample profile). Referring to Table 1, the AIQ may be viewed as measuring an evaluator's perception of administrator effectiveness along certain dimensions from either the society's point of view, the social system's point of view, or from the individual's point of view.

If, as suggested by the preceding concept, individual administrative effectiveness is viewed as the perception an evaluator has of the extent to which his needs, the social system's goals, and society's expectations are being met, the question then follows: What are the factors that determine the effectiveness of an administrator as viewed by others?

Components of Administrator Effectiveness

Numerous researchers have undertaken the task of identifying and measuring the factors of administrative effectiveness. In his comprehensive review of studies of administrator effectiveness Schutz (1966, Chapter 3, p. 1) assigned studies of administrator effectiveness

to four classifications: (1) character traits, (2) group factors, (3) role expectations, and (4) organizational models. He finds from his review that there is little convergence of viewpoint but that certain similarities in major factors do appear.

Stout and Briner (1969, p. 700) also recognize the validity of seemingly diverse explanations of effectiveness.

The study of leadership has shifted from attempts to construct single variable explanations to those which account for leadership by positing multivariate relationships. This shift has increased the sophistication of the explanations but it has also increased the intractability of the research problem and its results.

For example, Sanford has argued that leader behavior is a function of the leader, the group, the task, and outside pressures on the group, acting together in various undesigned combinations. Clearly he is correct. But to state the existence of all of these forces is not to explain them.

To Stogdill (1958, p. 51), leadership appears to be determined by a system of interrelationships and as such leadership must be regarded as an aspect of organization. He reasons that, "If leadership is determined by a system of interacting variables, then each of the several dimensions of responsibility and personal interaction might be conceived as representing a gradient of influence. If so, then it should be possible to measure leadership influences in terms of these dimensions."

Halpin (1957, p. 161) proposes that: "Administration, whether in education, industry, or government, refers to a human activity that involves a minimum of four components: 1. The task; 2. The formal organization; 3. The work group (or work groups); 4. The leader (or leaders).

The preceding citations suggest that administrative behavior is the result of the interaction of a number of variables. Schutz (1966, Chapter 3), as well as Morris and Seeman (1958, p. 12), suggest that these variables can be grouped in as far as they are characteristic of major components of an administrative attempt. A complete assessment of administrative effectiveness would then necessarily take into account the variables inherent in each of the major components. A general review of the literature related to variables of administrator effectiveness plus a careful study of the descriptions Schutz (1966, Chapter 3) offers for each of his four classifications of studies of administrative effectiveness suggests that a rating of administrator effectiveness is a function of the interaction between variables related to four major components. For the purpose of this study, the four components were defined as:

1. Administrator characteristics: a unique combination of physical, cognitive, and affective traits, descriptive of an individual who has been designated to lead an educational organization.
2. Criteria of effectiveness: standards by which administrator effectiveness is judged. Generally criteria are relegated to three categories: product, process, and presage.
3. Evaluator characteristics: a unique combination of physical, cognitive, and affective traits descriptive of the individual or group who apply one or more criteria to judge administrator effectiveness in an educational setting.

4. Situational factors: elements such as economy, facilities, externally imposed opinions, goals, the people who make up the organization, and control that to some extent define the environment of the administrative attempt.

A guide for rating administrator effectiveness may be made with the following statement. An administrator is rated effective relative to his performance on specified criterion by an evaluator or evaluators in a particular situation.

Support for the consideration of variables that may be attributed to each of the selected components is abundant in the literature. Studies that substantiate major variables that could account for the variance in each of the components follows:

Administrator Characteristics:

Kimbrough (1959, p. 348), in describing the development of the Tennessee Rating Guide, states, "The Tennessee project (development of the rating guide) has revealed that behavioral characteristics apparently make a difference in the degree of success a person enjoys in educational administration." Among the 125 statements of varying effectiveness that make up the Tennessee Rating Guide are such statements as: Tends to be a lone wolf; consistently seeks and considers the opinions of others; is dependable and predictable in word and action; and tends to listen only to himself.

While the characteristics purported to be measured by the Tennessee Rating Guide are described as behavioral characteristics, Gibb (1954) in his review of the literature lists physical and

constitutional characteristics of leaders considered relevant to effective leadership. He emphasizes that different leadership characteristics are needed in varied situations.

Lewin (1965) using tenure as the criterion measure found the following factors contributed most to the success of Connecticut school superintendents: (1) a genial, understanding, and warm personality; (2) the skill to encourage people to work together in complementary roles; (3) good staff relations in a secure atmosphere; (4) strong creative, and enthusiastic leadership; (5) a good, sound professional preparation of education, especially experience; (6) quality membership and leadership of boards of education; (7) a friendly, informed public, and (8) a happy worthwhile family life.

Bewley (1960) in his study of successful superintendents concluded, that success came to the superintendents partly because they possessed certain qualities and followed certain practices and partly because they skillfully used their own unique characteristics.

Using a content analysis technique, Coffeen (1961) found that measures of mental ability, general knowledge, and administrative knowledge, as well as ratings by teachers, sex of the subject, and instructional awareness were factors that should be given strong consideration in evaluating qualifications for the elementary school principalship. Ratings by superiors, amount and kind of college preparation, certification status, length of experience in education and administration, age, and measures of personality were listed as factors that should be given careful consideration in evaluating qualifications for the elementary school principalship.

A number of studies have been undertaken in an attempt to link personal characteristics such as age, experience, education, and biographical data to administrative or leadership effectiveness. Teachers are viewed by many as leaders, and studies of teachers as contributing to the knowledge about leadership.

Ryans' (1962, p. 289) comprehensive study of descriptive data of teachers indicated that teachers 55 years old and older were judged less effective than younger teachers. A similar pattern was displayed for years of experience. Peterson (1964) obtained similar results from interviews with teachers. Younger teachers were viewed as relating better to students and as being more active, while older teachers tended to be more subject-centered and control-oriented. Peterson concluded that teachers can be effective at all ages, but that teaching is an early plateau occupation.

Ellena (1961) reports that there is insufficient evidence to link marital status to teaching success. However, Ryans (1962) did detect some systematic differences between married and unmarried teachers.

Pierce and Merrill (1957, p. 352) in their summary of the status of knowledge related to personal factors of the administrator in administrator behavior made the following statement:

Broadly interpreted, the weight of evidence from available sources seems to justify the conclusion that it may now be possible to define more accurately than before the dimensions of personal qualities of leader behavior. These dimensions appear to be fourfold: philosophical, psychological, biological, and a dimension embracing knowledges, skills, and know-how. Obviously, these dimensions are not mutually exclusive. Perhaps it is reasonable to say that leader behavior is a function of the interaction of these factors in a situation,

plus the interaction of these qualities and the environmental factors of the situation. It seems reasonable to say that we now know some of the elements that go to make up each of these dimensions.

It is evident that the administrator himself, with his unique combination of physical, cognitive, and affective characteristics, is a major variable of administrative effectiveness and should, therefore, be a major component in a rating of administrator or administrative effectiveness. However, the importance of any single characteristic or set of characteristics in achieving success as an administrator is less clear. The important implication that the studies reviewed appear to have for ratings of administrator effectiveness is that ratings should be so constructed as to permit many, if not most, characteristics of the administrator to come into focus in the rating.

The following part of this section of Chapter II considers criteria of effectiveness. Criteria of effectiveness are considered a component of effectiveness for this study. However, it is important to note that in many instances the other designated components of effectiveness, administrator characteristics, administrative functions, and situational factors, may serve as sources for the criteria of effectiveness.

Criteria of Effectiveness

For the purposes of this report, criteria of effectiveness have been defined as standards by which administrator effectiveness is judged. Mitzel's (1960) categorization of effectiveness criteria has gained wide acceptance among researchers and theorists concerned with

effectiveness, particularly those researchers who are concerned with teacher effectiveness.

Mitzel (1960) proposed that effectiveness criteria be classified according to goal proximity, as product criteria, process criteria, or presage criteria. Product criteria are those criteria that measure predetermined goal achievement. Product criteria refer to stable or long term outcomes of school administration. Examples of product criteria would be the type of society existing 20 years from now as well as various types of meaningful student, teacher, and community growth.

Process criteria related to administrator effectiveness refer to those aspects of the social system process over which the administrator has some control. Process criteria refer to the interaction, expressed in behavior, between people. Variables of this type are: (1) administrator attitudes, (2) administrator behavior, and (3) group perceptions of the administrator along several dimensions.

Presage criteria are those criteria descriptive of administrator attributes and experiences presumed to be related to administrative effectiveness. These criteria include factors such as years of administrative experience, intelligence, and degrees held.

Mitzel's categorization of effectiveness criteria is a useful tool in developing or evaluating measures of administrative effectiveness. The categorizations help to point up the differences in results that may be obtained in measures of administrator effectiveness by use of different criteria. Two basic views of the selection of criteria seem to prevail. One view is expressed by Pierce and Merrill

(1957, p. 352) in their statement: "The first need is for an acceptable criterion of effective leader behavior sufficiently comprehensive and exhaustive to include the totality of such behavior in all of its quantitative and qualitative aspects." The second view is clearly stated by Schutz (1966, Chapter 3, p. 9): "It would appear more useful to describe and measure several criteria for administrative effectiveness, and then to determine which criteria are most important for each situational requirement."

Logic indicates that administrator effectiveness is relative to the criteria by which effectiveness is judged. The use of different criteria readily explains many conflicting results obtained by researchers. Numerous criteria exist for measuring administrator effectiveness. No one criterion is complete and a preference for a particular criterion requires a value judgment.

Bryan (1968, p. 11) succinctly illustrates the important role criteria play in assessing effectiveness by stating that effectiveness has no meaning apart from the criterion by which it is judged. The purpose of this study is to examine the relationships between and among selected variables inherent in group ratings of administrators. While the study examined only variables related to the administrator, the evaluators, and the situation, the study was conducted by using process criteria as represented by the 23-item AIQ. With the criteria held constant, the variance in ratings may be observed in terms of the differences in the administrators, the evaluators, and the situation.

.

In the preceding section on administrative effectiveness, the concept of evaluator point of view was presented. This concept proposed that an assessment of individual administrative effectiveness by another individual could be viewed from three perspectives, social system, society, or individual. The following sub-section presents a further investigation of the effect an evaluator has upon the rating of administrator effectiveness.

Evaluator Characteristics

It is widely accepted that individuals can and do perceive other persons, events, and even physical phenomena differently. Tajfel (1968, p. 567) in his discussion of social perception indicates that perceptual selectivity emerges as a common denominator in much of the work on social perception. Expecially is this true when the distinction is made between what can be perceived and what is perceived. Tajfel states: "A selection exercised at any given moment depends upon a great number of antecedent factors, including interests, needs, values, and goals."

Tagiuri (1968, p. 565), writing about person perception for the International Encyclopedia of the Social Sciences, discusses the differences in how people think about, form impressions, and perceive others. He indicates that even within the same cultural environment there are demonstrable individual differences in person perception.

The patterns of trait relationships assumed by the individual perceiver have been shown to have consistency and individuality, although there is also high consensus on trait interdependencies. Furthermore, people seem to have available a range of "personality theories" upon which they can draw, depending upon variations in the stimulus person and the situation.

Several studies indicate that the characteristics of the evaluator can have an effect upon the way in which another person is perceived.

Bush (1954) in an early study of student-teacher interrelationships showed that teacher liking for the pupil and pupil liking for the teacher were reflected in student ratings.

Della Piana and Gage (1955) determined that students with diverse value orientations reacted differently to characteristics of a teacher.

Bryan (1963) sought to determine the interrelationships of certain characteristics between principals and teachers and the effect of those interrelationships on appraisal results. Bryan's findings indicated that principals' ratings were significantly related to the degree of similarity between rater and ratee on measures in the Teacher Characteristics Schedule. The conclusion drawn by Bryan was that raters tend to evaluate from an internal and subjective frame of reference and the judgment of one person is inadequate for purposes of evaluation.

Bewley (1960), seeking to identify characteristics of successful superintendents on the basis of their administrative behavior, found that school trustees and employees perceived the superintendents differently and held unlike expectations for his behavior.

A summary of the preceding citations suggests that ratings of administrator effectiveness are in part a function of the perception of the evaluator. It is also suggested that one group of evaluators may perceive effectiveness differently than another group of evaluators.

The preceding parts suggest that the administrator, the criteria, and the evaluator are all components representing numerous variables that may account for the variance in administrator effectiveness ratings. The following part of this section reports literature pertaining to situational factors.

Situational Factors

Campbell (1957, p. 228) writes, "Administrative behavior is in part a product of the situation. This statement implies that there reside in each school, school district, or other unit or organization for educational purposes certain variables which are associated with the behavior of the administrator." Campbell notes that the technological, social, economic, and political conditions characteristic of the United States and the world provide situational variables associated with administrative behavior. However, the influence of people who make up four reference groups, (1) the community, (2) the board of education, (3) the school organization, and (4) the organized profession is much clearer and more evident. Campbell cites research to illustrate the importance of each of the reference groups as variables of administrative behavior. Campbell (1957, p. 261) suggests that while little can be said with great certainty about situational variables, and that they need much more study, it is clear that situational variables are many and complex in each school situation.

The influence of factors such as physical conditions, financial resources, and facilities on administrative behavior has not been as

well established as has the influence of people. However, studies in innovation such as Peets (1969) show that there is a relationship between financial resources and the number of innovative programs to be found in a school.

In the two preceding sections of this chapter, administrative effectiveness and the components of administrator effectiveness ratings were discussed. The following section will report the results of an examination of the literature related to the nature, limitations, and strengths of group ratings of administrator effectiveness.

Group Ratings of Administrators

Few tools of assessing effectiveness are used as extensively as rating scales or questionnaires. Undoubtedly, much of this popularity may be explained by the ease with which they are administered and their economy in terms of costs and time, when compared to assessments which require observers. A high level of reliability for group ratings is easily obtained, and does not involve the expense and training required to obtain high reliability when using observers. Frequent reference is also made to the value of group ratings in providing confidential feedback which may be used to modify behavior. Reappraisal to determine change in behavior is easily obtained with a minimum of cost, time, and outside interference.

A major advantage of group ratings to administrators is that the ratings permit a comparison of effectiveness as perceived by a variety of reference groups. To obtain similar information through observations by trained observers would require frequent and lengthy

observations of the administrator at work, as well as modification of the classification system for each reference group. Ratings by observers would still be implied, for it is doubtful that a behavioral classification system designed to measure behaviors contributing to such a large number of attributes could be successfully administered.

Perhaps the most important strength of group ratings of administrator performance is that such ratings provide a measure of the interpersonal relationships between administrator and individuals of reference groups. Brown (1967, p. 62) expresses this viewpoint when he states:

It is assumed at the outset that one can learn something of the leadership of a school from the staff perceptions--and judgments drawn therefrom--of the principal. This is so because of a more basic assumption that a perception of another person is a function of both sender and receiver of the precept. A descriptive statement based on such perceptions therefore gives away the nature of the describer as well as the described--sometimes, as with projective materials, to an even greater degree.

Staff statements describing the "leader" behaviors of their principal are useful sources from which to draw inferences relative to the nature of leadership existing in the school. This is true more because of than in spite of the susceptibility of these descriptive statements to projective distortion. Stated otherwise, if it can be assumed that leadership as distinct from leader behaviors is a transaction rather than a behavior, then the nature of leadership at a school will be revealed in the quality of transactions between the behavior of the leader and the perceptions thereof by the led.

Group perceptions of administrators are considered by many to offer important and relevant information related to administrator effectiveness. However, at the present time educators are in disagreement about the type of inferences which can be drawn from such perceptions or reactions and their value as compared to ratings

by superiors, ratings by panels of experts, ratings by teams of observers, or other methods of rating effectiveness.

Reddin (1967) believes that most studies of leadership have indicated there are two underlying variables influencing a leader's performance. One is "task-orientation" and the other, "relationship orientation."

Owens (1970, p. 120) in his discussion of the dimensions of leadership suggests that leader behavior falls into two general dimensions. "Although no universally accepted labels for these two categories have yet appeared, the terms structure and consideration are widely used."

Halpin (1970, p. 141) similarly describes two major dimensions of leader behavior which have evolved from extensive work with the Leader Behavior Description Questionnaire (LBDQ). The two dimensions are described by Halpin as: (1) "Initiating Structure-in-Interaction refers to the leader's behavior in delineating the relationship between himself and the members of his group, and in endeavoring to establish well-defined patterns of organization, channels of communication, and ways of getting a job done." (2) "Consideration refers to behavior that reflects friendship, mutual trust, respect and warmth in the relationship between the leader and group members."

Kimbrough (1959, p. 345) in his exposition of the development of the Tennessee Rating Guide summarizes the characteristics of the effective school administrator. These summaries may easily be thought of as falling into the person-centered, organization-centered categories. The five categories named by Kimbrough are, "interpersonal

relations, intelligent operation, emotional stability, ethical and moral strength, adequacy of communication, and operation as a citizen."

Gross and Herriott (1965) in their attempt to define determinants of the Executive Professional Leadership (EPL) of elementary school principals asked teachers how frequently their principal engaged in twelve behaviors. These behaviors may also be thought of as falling into the person-centered, organization-centered categories.

Brown (1967) in an extensive factor analysis of the LBDQ 12, reports two basic factors which he labeled "person" and "system". Writers in the field of management such as Blake and Mutton (1964) and Kepner and Tregoe (1966) identified two factors related to overall managerial effectiveness as production-centered and human-centered.

A major concern in the use and development of effectiveness rating scales has been the discriminatory power of rating instruments. Frequent reference has been made to halo effect. Coats (1970, p. 8), in his discussion of the factor analysis of the Teacher Image Questionnaire, states:

Students do not respond directly to specific questions regarding teacher effectiveness. Rather, a kind of halo effect based on teacher charisma or popularity determines to a large extent how students react to questions about their teacher. This is not to say that student ratings of teachers are not important or meaningful. Teacher charisma is probably a function of teacher effectiveness. Furthermore, as indicated above, at least 40% of the variance in student ratings of teachers is independent of the charismatic factor and probably represents fairly objective student judgments.

Mott (1966), who computed a factor analysis of the Tennessee Rating Guide, reported that one factor emerged. Mott found the data "suggests that a halo effect resulted during the rating procedure.

The criterion obtained apparently must be interpreted in terms of an overall rating of performance."

Stalnaker and Remmers (1928) computed intercorrelations for all items of the Purdue Rating Scale. A mean intercorrelation factor of .43 was produced. Coats (1970) obtained a mean intercorrelation of .57 for the Teacher Image Questionnaire, and Amatora (1950) found a median intercorrelation factor of .19 for the Diagnostic Teacher Rating Scale.

Starrak (1934) indicated that while halo effect was operative in his investigation of college teachers, it did not prohibit the student from exercising considerable discrimination between different traits on the scale.

The research of Osgood, Suci, and Tannenbaum (1957) suggests that "halo effect" is a single evaluative or attitudinal dimension which may be a primary factor in influencing responses to ratings. In the discussion of their extensive factor analysis of semantic meaning, Osgood, Suci, and Tannenbaum (1957, p. 72) state:

In every instance in which a widely varied sample of concepts has been used, or the concept variable eliminated as in forced-choice among the scales, the same three factors have emerged in roughly the same order of magnitude. A pervasive evaluative factor in human judgment regularly appears first and accounts for approximately half to three-quarters of the extractable variance. Thus the attitudinal variable in human thinking based as it is on the bedrock of rewards and punishments both achieved and anticipated, appears to be primary.

Summary

In this chapter a rationale for the study supported by research and theory has been presented. The rationale was based on the assumption

that several factors contribute to an effectiveness rating of an administrator.

It was suggested that administrative effectiveness ratings reflect evaluator judgment. Evaluator judgment may represent the society, the social system, or the individual point of view.

Four components were offered as main sources for variables which contribute to the variability in administrator ratings, (1) the administrator, (2) the evaluator, (3) the criteria of effectiveness, and (4) the situation.

The value of effectiveness ratings as sources of information relative to: (1) the interaction between administrators and reference groups, (2) the person-centeredness and organizational-centeredness of administrative behavior, and (3) the overall evaluation of administrators, was presented.

The following chapter details the research design and methodology used to investigate the relationships between selected variables and group ratings of administrator effectiveness.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

The purpose of this chapter is to describe the: (1) overall research design, (2) sample, (3) variables and instrumentation, (4) procedures, and (5) data treatment.

Research Design

The purpose of the present study was to determine the direction and strength of relationships between and among selected variables associated with group ratings of school administrators.

In order to meet the purpose of this study the data available from the Educator Feedback Center pertinent to 7004 ratings conducted with the Administrator Image Questionnaire for 249 administrators were analyzed. The analyzed data were obtained from the AIQ and two companion information forms, the Group Identification Form and the Administrator Identification Form. Samples of the three instruments may be found in Appendices A, B, and C.

A factor analysis of the AIQ was deemed necessary to aid in the interpretation of the relationships between the independent and dependent variables. In order to examine the relationships between and among the independent variables and the dependent variable, one-way analysis of variance, product-moment coefficients of correlation, and two-way factorial analysis of variance were used. The independent variables selected for analysis were idiographic variables descriptive of administrators, demographic variables descriptive of evaluator

groups, and situational variables descriptive of the circumstances in which the ratings were conducted. The dependent variable was group perception of administrators as measured by the AIQ.

Description of the Sample

The sample consisted of all administrators who used the Educator Feedback Center service of Western Michigan University during the 1968-69 and 1969-70 school years. The sample encompassed a total of 7004 ratings for 249 administrators occupying positions as superintendents, assistant superintendents, principals, assistant principals, and other administrative personnel. The administrators were composed of 234 males and 8 females. Seven respondents did not indicate their sex. There were 230 married, 10 single, 2 widowed, and 7 unclassified among the 249 administrators. The administrators reported that their highest degrees were distributed as follows: 159 in school administration, 33 in education, 10 in counseling and guidance, and 47 in one of 19 other academic areas. The position held by the administrators and the number of males and females who rated the administrator are indicated in Table 2.

TABLE 2
NUMBER OF RATERS FOR ADMINISTRATOR POSITIONS

Administrator Position	Number	Male Raters	Female Raters	Total Raters (M + F)
Secondary School Principals	69	1491	1040	2531
Elementary School Principals	68	314	1156	1470
Junior High School Principals	34	446	504	950
Superintendents	21	365	483	848
Assistant Superintendents	20	223	44	267
Others (Directors, Department Chairmen, Division Heads)	16	337	601	938
TOTALS	249	3176	3828	7004

The groups who rated administrators were composed largely of teachers, with administrators, service personnel, and other groups providing a much smaller number of ratings. A total of 303 groups rated the administrators. Table 3 illustrates the number of evaluator groups in each classification and the number of individuals comprising the group.

TABLE 3
NUMBER OF RATERS FOR EVALUATOR GROUPS

Evaluator Group	Number of Groups	Total Raters
Teachers	223	6155
Administrators	55	560
Service Personnel	12	88
Board Members	6	48
Others	7	153
TOTALS	303	7004

Subscription to the Educator Feedback Center service is voluntary. Administrators who wish confidential feedback designed to help them work more effectively with people order the appropriate materials directly from the Educator Feedback Center. The data do show that the administrators evaluated the socio-economic status of their districts in the following manner: Low - 17, Average - 187, High - 38. A review of the Administrator ID Form, Appendix C, for each administrator indicated that the administrators were employed by schools representative of many areas in Michigan, Ohio, Indiana, and Illinois.

Description of Variables and Instruments

Administrator image was the criterion measure in this study. The theoretical definition of this variable is the perception others have of a school executive authority's attitude, skill, knowledge, and

behavior. The instrument used to assess this variable was the AIQ. This instrument was developed by personnel associated with the Educator Feedback Center at Western Michigan University to provide feedback to administrators. The AIQ measures individual perceptions of administrator attitudes, understandings, skills, and behavior. Individual ratings are combined to form a group rating which is presented in a profile. See Appendix A for a copy of the complete AIQ and Appendix D for a sample profile.

Literature available from the Center (Educator Feedback Center, 1970) indicates that the AIQ measures group reaction to characteristics of an administrator utilizing process criteria. The profile compiled from the AIQ represents perceptions about an administrator's attitudes, understandings, skills, and behavior and is not necessarily a direct measure of actual attitudes, understandings, skills, and behavior. Content and face validity of the AIQ are associated with interpretation of what constitutes process criteria for effectiveness. There is considerable research to support the use of items similar to those used in the AIQ (Stogdill, 1948; Halpin, 1956). The factor analysis undertaken as part of this study contributes to the understanding of the nature of the AIQ. The number and nature of factors measured is discussed in Chapter IV, beginning on page 55.

Chance-half reliability coefficients from the different scaled AIQ questionnaire items have ranged from .82 to .93 (Educator Feedback Center, 1970, p. 3). Studies conducted by the Center on a similar instrument, the Teacher Image Questionnaire, have indicated that image

averages are stable and can be changed only with persistent and well-directed effort (Bryan, 1966).

A total of 13 independent variables were selected for investigation to determine their relationships to the criterion measure. Data pertinent to these variables were obtained from the Administrator ID Form and Group ID Form which accompany each set of completed AIQ questionnaires in the Educator Feedback Center's files. A description and operational definition of each independent variable follows:

Idiographic Variables

1. Administrator position. Position titles entered by administrators on the Administrator ID Form were assigned to one of the following seven categories:
 - Superintendent
 - Assistant Superintendent
 - High School Principal
 - Elementary School Principal
 - Junior High School Principal
 - Assistant Principal
 - Other
2. Highest degree held by administrator. Degree titles entered by administrators on the Administrator ID Form were assigned to one of the following four categories:
 - Bachelor's
 - Master's
 - Specialist's
 - Doctor's
3. Administrator age. Ages taken from the Administrator ID Form were assigned to one of the following levels:
 - 27-30
 - 31-35
 - 36-40

41-45
46-50
51-55
56-65

4. Administrator years in position. Responses to the question, "Number of years in present position" were categorized in the following manner:

1 year
2 years
3-4 years
5-9 years
10-33 years

5. Total administrative experience. Responses to the question, "Number of years you have been in administration" were assigned to the following levels:

1 year
2 years
3 years
4-9 years
10-14 years
15-19 years
20-33 years

Demographic Variables

1. Group percentage of males and females. Responses found on the Group ID Form to the question, "What percentage of this group is female, male" were assigned to the following levels of male representation:

0% males
1-20% males
21-40% males
41-60% males
61-80% males
81-99% males
100% males

2. Group average age. Responses to the Group ID Form

question, "The average age of this group is about"

were categorized as:

24-30 years of age
31-35 years of age
36-40 years of age
41-50 years of age

3. Teacher group experience in present positions.

Responses to the question, "If this is a group of teachers, approximately what percentage has been teaching on this job for a period of 0-3 years; 4-10; 11 or more,"

were assigned to the following categories:

50% or more of group 0-3 years
50% or more of group 4-10 years
50% or more of group 11 or more years
No level greater than 50%

4. Number of evaluators in group. Appropriate with

the number of completed AIQ's in each group, the group

was assigned to one of the following levels:

3-10 members
11-20 members
21-30 members
31-45 members
47-64 members
80-100 members

5. Group educational level. The group educational level

was assigned according to responses to the Group ID Form

question, "The approximate educational level of this group is: no college, some college, college graduate, M.A., M.A. plus."

6. Group type. Each group was classified according to the designation made for the group by the administrator; teachers, administrators, service personnel, parents, students, board members, or others were the possible choices.

Situational Variables

1. Community socio-economic status. Responses to the Administrator ID Form question, "Socio-economic status of the community in which you work: low, average, high" were counted.
2. Group image. Administrator responses to the Group ID Form question, "How do you as an administrator perceive this group along the following dimensions" were computed and an average for the four dimensions was used as the group image score. The rating scale with numerical values is shown in Figure 1.

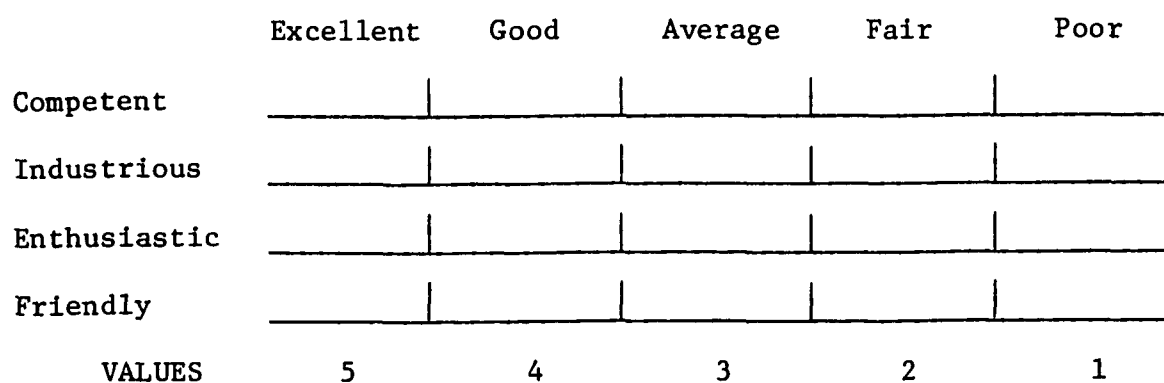


Fig. 1.--Group Rating Scale

Procedures

This study was ex post facto in nature and attempted to analyze the strength and direction of relationships between data descriptive of administrators, evaluators, and the situation and ratings of administrator effectiveness.

The data-gathering process was conducted by consistent organization of data collected and made available by the Educator Feedback Center of Western Michigan University.

The group perceptions which produce the administrator image are based on the Administrator Image Questionnaire used by the Educator Feedback Center. The basic service provided for administrators consists of a tabulated image profile representing average group reactions to questions believed to be related to administrator effectiveness for the administrator on whom the data are gathered. These group perceptions are obtained by means of the Administrator Image Questionnaire which requires about 15 to 20 minutes to complete. Simple instructions for administration of the questionnaire are furnished with each set of questionnaires. Instructions request that someone other than the administrator being rated administer the questionnaire and that group responses be collected and returned to the Center in a pre-addressed envelope after completion. Administrator responses to the Group ID Form and Administrator ID Form are completed and given to the questionnaire administrator for inclusion with group responses. Individual responses to the questionnaire are anonymous and the questionnaire has been used mainly with groups of teachers, administrators, board members, and service personnel.

The questionnaire is designed to measure reactions varying from poor to excellent on questions like the following:

Verbal fluency: (Does he express his ideas smoothly? Is he articulate?)

Consideration of others: (Is he patient, understanding, considerate, and courteous?)

Performance under stress: (How does he function under pressure?)

Managerial skill: (Does he coordinate the efforts of those responsible to him so that the organization operates at peak efficiency?)

A complete copy of the questionnaire may be found in Appendix A.

As soon as the questionnaires are completed, they are returned to the Educator Feedback Center for analysis. After analysis, an administrator image profile is developed and sent to the administrator on whom the feedback was gathered. An example of a profile for just four of the 23 variables measured by the questionnaire is shown in Figure 2. A sample profile may be found in Appendix D.

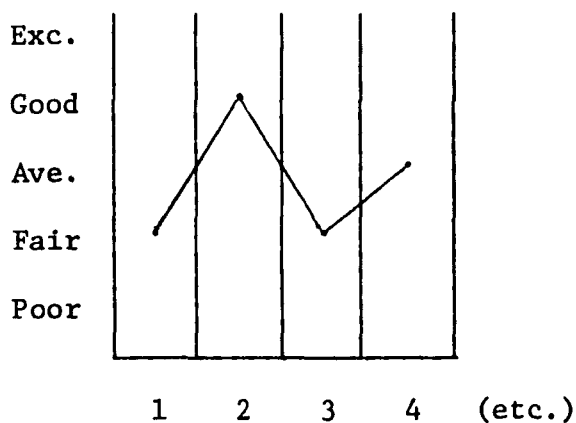


Fig. 2.--Example Profile for Four Items

Key to Questions:

1. Verbal Fluency
2. Consideration of others
3. Performance under stress
4. Managerial skill
- (etc.)

Responses to the AIQ, Group ID Form, and Administrator ID Form were assigned numerical value when necessary, categorized when appropriate, and coded for key punching on IBM cards. The completed IBM cards were then proofread and all errors corrected. Appropriate computer programs were designed or adapted to meet requirements of the data treatment.

Data Treatment

Four statistical methods were used in treating the data. An explanation of each of the treatments follows:

1. Factor analysis. To determine the number and nature of factors measured by the AIQ, the factor analysis program, (Library Program #1.6.1), as designed for the Computer Center of Western Michigan University was used. A principal component solution and the varimax rotation of the factor matrix were performed. Principal component analysis was used to determine the minimum number of independent dimensions needed to account for most of the variance in the original set of variables.
2. One-Way Analysis of Variance. The one-way analysis of variance as presented by Kerlinger (1964, p. 187) was selected as the most appropriate design for the investigation of questions which offered discrete levels of an independent variable. The differences in means for the levels were reported in the form of F-ratios, and the level

of confidence was reported as p . The strength of association as suggested by Coats (1970, A) was reported as E^2 .

3. Product-Moment Coefficients of Correlation. Questions concerned with continuous measures in both variables were analyzed by computing coefficients of correlation as suggested by Guilford (1965, p. 91). The statistical significance of each Pearsonian coefficient of correlation, r , was determined by a t-test and reported as a level of confidence, p . The coefficient of determination, R , (r^2), was also reported.
4. Factorial Analysis of Variance. A two-way factorial analysis of variance as presented by Kerlinger (1964, p. 213) was selected as the most appropriate design to analyze the independent and interactive effect that several levels of two independent variables produce in the dependent variable. The dependent variable in each cell of the cross-partition was the mean response for each sub-group to all items on the AIQ. The differences yielded by the design were reported in the form of F-ratios, the level of confidence was reported as p , and the strength of association as E^2 .

When the one-way or factorial analysis of variance produced F-ratios that were significant at .06 or beyond, an adjusted t-test was used to compare the cells that appeared to produce the variance.

This procedure was used to aid in interpreting the direction and strength of results.

The method selected for reporting the analysis of data consists of tables and accompanying narrative. Both level of confidence and strength of association are reported for the relationships between variables.

Samples as large as the sample used in this study frequently produce statistically significant differences between means. Determining the strength of association between variables provides information beyond that provided by levels of significance. Strength of association allows the researcher to make inferences about the ability to predict one variable from another. Such treatment of data has strong support from Hays (1963) and Coats (1970, A). They present convincing arguments suggesting that the level of confidence at which one observes results reveals little unless coupled with attention to the size of the sample and the strength of the association between variables.

Each of the questions posed for this study, as listed in Chapter I beginning on Page 4, are presented, analyzed, and discussed in the following chapter.

CHAPTER IV

RESULTS

In this chapter results of data analyses are described. An introductory section is followed by five sections in which findings pertaining to each specific purpose of the study are reported. A summary concludes the chapter.

Rather than report traditional .01 and .05 significance levels in the tables and other data presentations, the levels of confidence, p , and strengths of association, E^2 for analysis of variance and r^2 for correlation coefficients, are reported. The reader will be able then to deduce by inspection if the results were significant or meaningful at levels which are of interest to him.

Review of the Problem

The specific purposes of this study were to gain information relative to the number and nature of the factors measured by group ratings of administrator effectiveness and to examine relationships between selected idiographic, demographic, and situational variables and group ratings of administrators.

The five major questions investigated were:

1. What are the number and nature of factors that underlie group perception of administrators?
2. What are the relationships between selected idiographic variables descriptive of administrators and group perception of administrators effectiveness?

3. What are the relationships between selected demographic variables descriptive of evaluator groups and their perception of administrator effectiveness?
4. What are the relationships between selected situational variables and group perception of administrator effectiveness?
5. What are the relationships between the interaction of selected idiographic, demographic, and situational variables and group perception of administrator effectiveness?

Each of these questions is examined below. A complete list of all specific questions examined was presented on page 4 in Chapter I.

Findings

Question 1 and questions 1A and 1B pertain to the factors upon which administrator ratings as represented by responses to the AIQ were loaded.

Question 1 -- Factor Analysis

What are the number and nature of factors that underlie group perception of administrator effectiveness?

To answer question 1 a factor analysis for all groups and all administrators was computed. Table 4 illustrates the number of administrators in each position and the number of groups of each type who evaluated the administrators.

TABLE 4
NUMBERS OF ADMINISTRATORS AND EVALUATORS

Position	Number	Teachers	Administrators	Service Personnel	Students	Board Members	Other
Superintendent	21	20	10	1		3	
Assistant Superintendent	20	2	18				1
High School Principal	69	68	4	2	1	1	1
Junior High School Principal	34	35		1			1
Elementary Principal	68	70	9	8		2	
Assistant Principal	16	13	2				2
Other	21	15	12				1
Total	249	223	55	12	1	6	6

Results of the factor analysis for all groups and all administrators for the 23-item AIQ are displayed in Table 5 which is a 23 x 23 intercorrelation matrix. The intercorrelation matrix is followed by Table 6 showing the results of converting the intercorrelation matrix into a factor matrix based on the principle axis method of rotation. The factor loading table also contains the squared factor loadings and shows the proportion of variance in each item as

TABLE 5

INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
ALL GROUPS AND ALL ADMINISTRATORS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Verbal fluency	*100	55	59	56	56	54	61	65	56	50	55	55	69	53	53	56	71	66	67	53	54	62	47
2 Consideration of others		100	66	64	61	78	81	80	84	82	63	57	64	83	79	74	65	70	69	73	81	74	49
3 Attitude toward his job			100	75	87	70	68	73	64	67	61	62	70	66	71	63	76	72	75	65	63	75	51
4 Technical competence				100	80	72	71	78	65	61	64	59	73	63	67	61	84	78	84	67	62	76	50
5 Achievement drive					100	75	73	78	65	67	66	67	80	65	72	64	86	79	85	68	60	79	52
6 Supportiveness						100	78	81	79	78	68	61	75	81	84	72	76	76	80	77	68	75	53
7 Flexibility							100	87	85	82	74	77	71	77	78	80	76	79	77	75	78	78	45
8 Performance under stress								100	79	76	69	67	78	80	78	73	83	81	83	73	84	80	54
9 Openness									100	85	70	65	66	81	79	75	67	73	72	77	75	76	42
10 Encouragement of participation										100	71	69	62	80	77	79	67	73	70	75	74	73	44
11 Ability to delegate											100	64	66	63	69	64	65	72	74	68	58	72	41
12 Innovativeness												100	54	60	57	65	67	71	63	56	58	58	46
13 Communicating expectations													100	69	77	59	79	80	86	71	61	78	51
14 Fairness														100	79	71	68	76	74	74	80	69	54
15 Maintaining staff morale															100	77	74	77	81	84	68	84	44
16 Sense of humor																100	71	72	66	72	67	71	43
17 Decision-making ability																	100	86	87	71	69	82	55
18 Evaluating ability																		100	87	79	73	81	57
19 Managerial skill																			100	76	69	83	55
20 Awareness																				100	67	80	41
21 Self control																					100	70	52
22 Leadership skill																						100	43
23 Appearance																							100

N groups = 303 N raters = 7004 N administrators = 249

*Decimal points omitted

TABLE 6

FACTOR LOADINGS AND FACTOR LOADINGS SQUARED FOR
ADMINISTRATOR IMAGE QUESTIONNAIRE
ALL GROUPS AND ALL ADMINISTRATORS

Questionnaire Item	Factor Loading		Factor Loading Squared		
	I	II	I	II	Total h^2
Verbal fluency . . . . .	.71	-.35	.504	.122	.626
Consideration of others . . .	.85	.33	.722	.109	.831
Attitude toward his job . . .	.82	.21	.672	.044	.716
Technical competence . . . . .	.83	-.31	.689	.096	.785
Achievement drive . . . . .	.86	-.34	.739	.116	.855
Supportiveness . . . . .	.88	.09	.774	.008	.782
Flexibility . . . . .	.91	.18	.828	.032	.860
Performance under stress . . .	.92	.01	.846	.000	.846
Openness . . . . .	.87	.31	.757	.096	.853
Encouragement of participation	.86	.34	.739	.116	.855
Ability to delegate . . . . .	.79	.04	.624	.001	.625
Innovativeness . . . . .	.75	.01	.562	.000	.562
Communicating expectations . .	.85	-.26	.722	.062	.784
Fairness . . . . .	.86	.26	.739	.067	.806
Maintaining staff morale . . .	.89	.14	.792	.019	.811
Sense of humor . . . . .	.82	.23	.672	.052	.724
Decision-making ability . . .	.89	-.29	.792	.084	.876
Evaluating ability . . . . .	.91	-.13	.828	.017	.845
Managerial skill . . . . .	.91	-.22	.828	.048	.876
Awareness . . . . .	.85	.13	.722	.017	.739
Self control . . . . .	.82	.22	.672	.048	.720
Leadership skill . . . . .	.89	-.06	.792	.004	.796
Appearance . . . . .	.59	-.23	.348	.053	.401
Total			16.363	1.211	
Average			.711	.053	.764

N groups = 303 (223 teacher, 55 administrator, 12 service personnel,
1 student, 6 board member, 6 other)

N administrators = 249

N raters = 7004

well as the proportion of variance in the total questionnaire which is accounted for by each of two significant factors.

An examination of Table 5 suggested that all items of the questionnaire share a significant amount of common variance. The 253 pairwise correlations range from .41 for two correlations, appearance with ability to delegate responsibility, and appearance with awareness, to .87 for achievement drive with attitude toward his job, and performance under stress with flexibility. Two additional pairwise correlations, managerial skill with decision making ability, and managerial skill with evaluating ability are also correlated at .87.

Table 6 contains information for only those two factors which accounted for a significant amount of variance in test items. As was suggested by the intercorrelation analysis, a single factor seemed to account for much of the variance in all items. One other factor appeared to be worth noting because of its correlation with some items. Factor I accounted for 71 per cent of the variance in the questionnaire and Factor II accounted for an additional five per cent of the variance. The two factors accounted for 76 per cent of the total variance in the questionnaire. These factors accounted for a minimum of 40 per cent and a maximum of 87 per cent of the variance in any single item. The two factors accounted for the least amount of variance, 40 per cent, in the variable appearance.

An examination of the direction of the factor loadings and coefficients of determination in Table 1 suggested some labels for the two factors. Factor I accounted for much of the variance in all items even though some of those items such as technical competence

and sense of humor appear to have little common relation. Factor I was viewed as a general evaluative factor indicative of an overall high or low regard for the administrator being rated. Factor II might be called a human-centered or other person-centered factor as it was most positively correlated with such items as consideration, openness, encouragement of staff participation, and fairness, and most negatively correlated with verbal fluency- technical competence, achievement drive, and decision-making ability. Factor II was not as clear in a statistical sense as was Factor I. The reason Factor II was not as clear is due to the fact that Factor I was such a strong factor which by itself accounted for an average of 71 per cent of the variance in the total questionnaire scores. One main factor seems to underlie group perception of administrator effectiveness and its nature appears to be one of overall effectiveness or general regard for the administrator being evaluated.

Questions 1A and 1B ask if the factors identified in the factor analysis for all groups and all administrators prevail for distinct administrative positions and for different evaluator groups.

Question 1A

Are the number and nature of factors that underlie group perception of administrators similar for elementary school principals, junior high school principals, high school principals, assistant school superintendents, and school superintendents?

In order to answer question 1A a factor analysis was computed for each of the administrative positions involved. Referring to

Table 4, Page 51, it is apparent that the factor analyses for the various administrative positions predominately represent teachers' ratings except in the factor analyses for superintendents and assistant superintendents. The factor analysis for superintendents represents 20 teacher group ratings, 10 administrator group ratings, and three board group ratings. The factor analysis for assistant superintendents uses 18 administrator group ratings and two teacher group ratings.

An examination of the intercorrelation matrices¹ for the five administrative positions suggested, as did the matrix for all groups and all administrators (Table 5), that all items of the questionnaire share a significant amount of common variance. With the exception of item 23, appearance, which was consistently the lowest item for each position and remarkably lower for junior high school principals, the 1155 pairwise correlations computed for the nine matrices ranged from .28 to .95. Examination of the matrices also suggested, and review of the factor loading tables² confirmed this suggestion, that while the direction was the same in all matrices the correlation coefficients were higher for junior high principals. That is, review of the factor loading table for each position indicated that while there was some difference in loading on individual items the same general direction

¹Matrices for Elementary Principals, Junior High School Principals, High School Principals, Assistant Superintendents, and Superintendents are presented in Appendices E through M.

²Factor loading tables for Elementary Principals, Junior High School Principals, High School Principals, Assistant Superintendents, and Superintendents are presented in Appendices F through N.

and high loading on Factor I was prevalent. As was found in the factor loadings for all groups and administrators, one factor seemed to account for much of the variance in all items regardless of the position held by administrators. Table 7 illustrates the average factor loadings and average coefficient of determination for the five administrative positions. All groups and administrators are included in Table 7 to facilitate comparison.

TABLE 7
FACTOR LOADINGS FOR FIVE ADMINISTRATOR POSITIONS

Position	Average Factor I	Average Factor II	Average h^2
All Groups and Administrators	.711	.053	.764
Elementary Principals	.723	.049	.772
Junior High Principals	.752	.068	.820
High School Principals	.712	.053	.765
Assistant Superintendents	.675	.076	.751
Superintendents	.686	.065	.751

In agreement with the observations made for the factor analysis of all groups and administrators, the data displayed in Table 7 for each of the five administrative positions suggest that Factor I accounts for about 70 per cent of the variance in the

questionnaire for each of the six factor analyses considered to this point. Question 1B asks for further investigation of AIQ factors.

Question 1B

Are the number and nature of factors that underlie group perception of administrators similar for teacher groups, administrator groups, and service personnel groups?

The intercorrelation matrices and factor loading tables for teacher evaluator groups, administrator evaluator groups, and service personnel groups are presented in Appendices O through T. Examination of the intercorrelation matrices indicated clearly that the relationships noted for the preceding six factor analyses prevail for the three evaluator groups. The direction of the 253 pairwise correlations computed for each evaluator group were consistent with each other and similar to the correlations computed for all groups and all administrators and the five positions. It was readily apparent that the pairwise correlations were highest for the service personnel and lowest for the administrator evaluator group. The range of the pairwise correlations for the three groups under consideration, .31 to .98, is wider but comparable to the .41 to .87 range of pairwise correlations for all groups and administrators. The range of the pairwise correlations for the three evaluator groups, .31 to .98, is equal to the .28 to .95 range for the five position groups. An examination of the factor loadings for the three evaluator groups indicates that Factor I accounted for much of the variance in all items. Factor II appeared to be correlated in much the same manner as

it was correlated in the other factor analyses computed for this study.

Examination of the factor loadings for each of the 23 items in each of the nine factor analyses indicates that while Factor I and Factor II vary in strength they are present in each item and their nature is constant. The label for Factor I, general evaluative factor indicative of an overall high or low regard for the administrator being rated, and the label for Factor II, human-centered or other person-centered, are appropriate for all nine factor analyses computed for this study. Table 8 illustrates the average factor loading and average coefficients of determination for the nine factor analyses. Table 8 shows that the ratings of service personnel groups are most highly influenced by the general evaluative factor, Factor I, and administrator evaluator groups are least influenced by Factor I. Evidently administrator evaluator groups are more discriminating in their responses to individual items which make up a group rating of administrators than teacher or service personnel groups. Service personnel groups seem to respond more to an overall regard for the administrator and respond less to individual questions when rating administrators. Table 8 also illustrates that the factor loadings are quite similar in all the factor analyses computed for this study.

This section of the report has described data and reported results of factor analyses for two factors that underlie group perception of administrators. The following section reports results of analyses of data related to idiographic variables descriptive of administrators.

TABLE 8
FACTOR LOADINGS FOR FIVE POSITIONS
AND THREE GROUP TYPES

Analysis	Average Factor I	Average Factor II	Average h^2
All Groups and All Administrators	.711	.053	.764
Elementary Principals	.723	.049	.772
Junior High Principals	.752	.069	.820
High School Principals	.712	.053	.765
Assistant Superintendents	.675	.076	.751
Superintendents	.686	.065	.751
Teacher Evaluators	.725	.056	.781
Administrator Evaluators	.658	.065	.723
Service Personnel Evaluators	.818	.061	.879

Question 2 -- Idiographic Variables

What are the relationships between selected idiographic variables descriptive of administrators and group perception of administrator effectiveness?

A one-way analysis of variance model was used to examine the relationships between idiographic variables and ratings of administrator effectiveness in order to answer the five specific questions related to Question 2.

Question 2A

Is there a relationship between the position held by administrators and administrator image?

The mean scores on effectiveness ratings for six administrative positions were compared. The data, shown in Table 9, indicated that junior high school principals were rated highest and high school principals were rated lowest. There is no obvious pattern for the means. The level of confidence for the difference between means of administrator positions was .25 and the strength of association, E^2 , was .032. Knowing the position of an administrator does not greatly aid in predicting his effectiveness rating. For example, a superintendent is not automatically rated higher than an assistant principal.

Question 2B

Is there a relationship between the highest degree held by administrators and administrator image?

The data displayed in Table 10 indicated very little difference between means on effectiveness ratings for administrators holding four different degrees. The analysis of variance results shown in Table 10 indicate a low level of confidence, .90 and little strength of association, .002. Even this minor relationship may be largely attributed to one cell, Bachelor's mean. The analysis seems to indicate that there is little or no relationship between educational degrees held by administrators and group ratings of administrators. Administrators who hold an advanced degree can not expect a higher effectiveness rating based only on possession of the advanced degree.

TABLE 9
SUMMARY AND ANALYSIS OF VARIANCE
FOR ADMINISTRATOR POSITION

Position	N	Mean	Variance	SD	SEM	Nr
Superintendent	33	3.906	.185	.430	.076	848
Assistant Superintendent	22	3.914	.243	.492	.108	267
High School Principal	79	3.710	.266	.516	.058	2531
Junior High Principal	35	3.966	.254	.504	.086	950
Elementary Principal	89	3.846	.278	.528	.056	1470
Assistant Principal	17	3.941	.270	.520	.130	477
Source of Variance	df		MS	F	p	E ²
Between Groups	5		.465	1.768	.25	.033
Within Groups	269		.263			

N = Number of groups

Nr = Number of total raters in groups

TABLE 10
SUMMARY AND ANALYSIS OF VARIANCE FOR HIGHEST
DEGREE HELD BY ADMINISTRATOR

Degree	N	Mean	Variance	SD	SEM	Nr
Bachelor's	7	4.000	.220	.469	.191	90
Master's	234	3.845	.281	.530	.035	5402
Specialist's	25	3.864	.183	.428	.087	640
Doctor's	27	3.867	.159	.399	.078	748
Source of Variance		df	MS	F	p	E ²
Between Groups		3	.058	.219	.90	.002
Within Groups		289	.263			

N = Number of groups

Nr = Number of total raters in groups

Question 2C

Is there a relationship between the age of administrators and administrator image?

The data in Table 11 indicate that administrators in the 31-35 age bracket are rated higher than administrators in other brackets. The level of confidence for this relationship is .05 and the strength of association, E^2 , is .044. That is, the amount of variance common to independent and dependent variables is four per cent. The adjusted t -values comparing the 31-35 age bracket with each of the six other age brackets illustrated in Table 12 range from .05 to .001 confidence levels. A clear pattern in differences between means is illustrated

in Table 11. This pattern suggests a curvilinear relationship whereby the youngest administrators (27-30) and the oldest administrators (56-65) are rated lowest while the administrators in brackets 31-35 and 36-40 rated highest. The analysis of data suggests that an administrator may expect his effectiveness, as perceived by evaluator groups, to change with age. The nature of this relationship is such that highest ratings may be expected between the ages of 31 and 40.

TABLE 11
SUMMARY AND ANALYSIS OF VARIANCE
FOR ADMINISTRATOR AGE

Administrator Age	N	Mean	Variance	SD	SEM	Nr
27-30	27	3.752	.291	.540	.106	586
31-35	55	4.035	.190	.437	.059	1063
36-40	63	3.861	.314	.560	.071	1384
41-45	71	3.783	.229	.478	.057	1877
46-50	39	3.849	.295	.543	.088	969
51-55	17	3.806	.145	.381	.095	485
56-65	18	3.639	.219	.468	.114	408
Source of Variance	df	MS	F	p	E ²	
Between Groups	6	.549	2.147	.05	.044	
Within Groups	283	.256				

N = Number of groups

Nr = Number of total raters in groups

Wilson (1971), in a study of teacher effectiveness ratings using the Teacher Image Questionnaire, found similar relationships between age and effectiveness ratings.

TABLE 12
COMPARISON BETWEEN RATINGS FOR VARIOUS
LEVELS OF ADMINISTRATOR AGE

Levels Compared	<u>t</u> -value	df	p
31-35 and 27-30	2.510	80	.01
31-35 and 36-40	1.831	116	.05
31-35 and 41-45	3.014	124	.005
31-35 and 46-50	1.814	92	.05
31-35 and 51-55	1.914	70	.05
31-35 and 56-65	3.230	71	.001

Question 2D

Is there a relationship between the number of years administrators have been employed in their present positions and administrator image?

The means displayed in Table 13 indicate that evaluators react most favorably to administrators with five to nine years of experience in their present position and least favorably to administrators with two years and 10 to 33 years of experience in their present position. It is noteworthy that administrators in the one year bracket are rated next to highest by evaluators and that this higher score drops

sharply for the administrators in the two year bracket. This effect may be viewed as a kind of honeymoon effect whereby evaluators feel interaction with the new administrator is relatively effective and rate him accordingly. The analysis of variance presented in Table 13 shows an F of 3.120 which is significant at the .025 level of confidence and an E^2 of .041. Table 14 illustrates the level of confidence for the one year and five to nine years brackets of administrator experience in present position compared with all other brackets. These two brackets of experience have significantly higher

TABLE 13
SUMMARY AND ANALYSIS OF VARIANCE FOR ADMINISTRATOR
YEARS IN PRESENT POSITION

Years in Position	N	Mean	Variance	SD	SEM	Nr
1	57	3.972	.247	.497	.066	1333
2	50	3.764	.233	.483	.069	1075
3-4	87	3.770	.360	.600	.065	1901
5-9	63	3.988	.158	.398	.051	1712
10-33	35	3.774	.155	.394	.068	781
Source of Variance	df	MS	F	p	E^2	
Between Groups	4	.788	3.120	.025	.041	
Within Groups	287	.253				

N = Number of groups

Nr = Number of total raters in groups

means at a minimum .05 level of confidence. This suggests additional confidence in the relationship between administrator age and group ratings of administrator effectiveness.

TABLE 14
COMPARISON BETWEEN RATINGS FOR VARIOUS LEVELS OF
ADMINISTRATOR EXPERIENCE IN PRESENT POSITION

Years in Position	<u>t</u> -value	df	p
1 and 2	2.168	105	.025
1 and 3-4	2.094	142	.025
1 and 10-33	1.978	90	.05
5-9 and 2	2.671	111	.005
5-9 and 3-4	2.485	148	.01
5-9 and 10-33	2.523	96	.01

Question 2E

Is there a relationship between the total number of years administrators have been employed as a school administrator and administrator image?

Inspection of the data presented in Table 15 reveals an inconsequential relationship between total years of administrator experience and group ratings of administrators. The level of confidence for this relationship was .75 and the strength of association was .017. That is, administrator experience and administrator image share less than two per cent common variance. Knowing the total number of years

an administrator has been employed in school administration does not reduce the uncertainty about his effectiveness rating. These data suggest that persons responsible for employing school administrators should not expect administrators with more years of experience in administration to be perceived by evaluator groups as more effective than administrators with less experience.

TABLE 15

SUMMARY AND ANALYSIS OF VARIANCE FOR ADMINISTRATOR
TOTAL YEARS EXPERIENCE IN ADMINISTRATION

Years in Administration	N	Mean	Variance	SD	SEM	Nr
1	20	4.03	.242	.492	.113	318
2	22	3.81	.234	.484	.106	578
3	25	3.85	.280	.529	.108	517
4-9	114	3.89	.290	.538	.050	2459
10-14	64	3.77	.269	.519	.065	1584
15-19	31	3.85	.161	.401	.073	876
20-23	15	3.78	.128	.358	.096	430
Source of Variance		df	MS	F	p	E ²
Between groups		6	.212	.811	.75	.017
Within groups		284	.261			

N = Number of groups

Nr = Number of total raters in groups

This section described results of analyses pertaining to the relationships between selected idiographic variables and administrator effectiveness as measured by the AIQ. The results of the analysis suggest that there is little strength and low level of confidence in the relationships between the independent variables, (1) administrator position, (2) college or university degree, (3) total years experience in administration, and the dependent variables administrator effectiveness ratings. The analysis also suggest that there is more strength and fairly high level of confidence for relationships between (1) administrator age, (2) administrator experience in present position, and the dependent variables effectiveness ratings.

The nature of these relationships seems to be curvilinear and persons interpreting administrator effectiveness ratings may expect: (1) lower ratings for younger and older administrators, (2) a honeymoon effect for first year administrators and (3) higher ratings for administrators serving the fifth through ninth years in a position.

Interpreters apparently may also expect administrative position, educational degree and total administrative experience to have little or no relationship with administrator ratings.

The following section presents results of data analysis related to demographic variables of administrator ratings.

Question 3 -- Demographic Variables

What are the relationships between selected demographic variables descriptive of evaluator groups and their perception of administrator effectiveness?

The one-way analysis of variance model was used for examining the relationships between independent demographic variables and the dependent variable mean AIQ score to answer the following six questions related to question 3.

Question 3A

Is there a relationship between the percentage of males and females in an evaluator group and administrator image?

An examination of the means presented in Table 16 revealed that the evaluator groups composed of all females or all males rated administrators slightly higher than evaluator groups composed of both females and males. However, the analysis of variance table, Table 16, indicates a low level of confidence, .90 for the difference between means for all levels examined. Knowing the percentage of males and females in an evaluator group does not reduce the uncertainty about administrator ratings.

Question 3B

Is there a relationship between the average age of members in the evaluator group and administrator image?

A one-way analysis of variance was used to compare the variance between four levels of average evaluator group age. Inspection of the means displayed in Table 17 indicated little difference in the mean scores for four levels of average group age. The confidence level of the difference between all means as shown in Table 17 is .90 and the variance shared by group age and administrator image, E^2 , is .004. The data clearly suggest that administrator effectiveness ratings do

TABLE 16
SUMMARY AND ANALYSIS OF VARIANCE FOR PERCENTAGE
OF MALES AND FEMALES IN EVALUATOR GROUP

Percentage of Males	N	Mean	Variance	SD	SEM	Nr
0	9	4.03	.238	.488	.172	102
1-20	57	3.82	.299	.547	.073	1189
21-40	36	3.81	.269	.519	.088	1074
41-60	72	3.83	.253	.503	.060	2420
61-80	55	3.81	.275	.524	.071	1573
81-99	25	3.89	.299	.546	.112	374
100	34	3.92	.156	.394	.069	272
Source of Variance		df	MS	F	p	E ²
Between groups		6	.118	.443	.90	.01
Within groups		281	.267			

N = Number of groups

Nr = Number of total raters in groups

not vary with the average age of evaluator groups. That is, evaluator groups representing four levels of average age rated administrators similarly.

TABLE 17
SUMMARY AND ANALYSIS OF VARIANCE FOR AVERAGE
AGE OF MEMBERS IN EVALUATOR GROUP

Average Age	N	Mean	Variance	SD	SEM	Nr
24-30	55	3.85	.288	.536	.073	1511
31-35	82	3.82	.251	.501	.056	2589
36-40	74	3.84	.273	.522	.061	1618
41-50	59	3.91	.264	.514	.067	958
Source of Variance	df	MS	F	p	E ²	
Between groups	3	.085	.313	.90	.004	
Within groups	266	.271				

N = Number of groups

Nr = Number of total raters in groups

Question 3C

Is there a relationship between the years of experience teachers have in the school system and their rating of administrator image?

The data displayed in Table 18 shows that evaluator groups with over half of the members having 0 to 3 years and 4 to 11 years

experience rated administrators slightly higher than did evaluator groups with over half of the members having 11 or more years, or groups made up of members from all three levels. The confidence level for this difference in means is .75 and the strength of association, E^2 , is .01 as indicated in Table 20. This suggests that there is little relationship between the number of years a group of teacher evaluators have been teaching in a school system and administrator ratings.

TABLE 18
SUMMARY AND ANALYSIS OF VARIANCE FOR TEACHER
GROUP EXPERIENCE IN SCHOOL SYSTEM

More Than Half of Evaluator Group at This Level	N	Mean	Variance	SD	SEM	Nr
0-3 years	46	3.85	.369	.607	.091	1075
4-11 years	46	3.88	.236	.486	.072	1175
11 or more years	24	3.77	.244	.494	.103	466
No level represented by half of group	104	3.77	.227	.476	.047	3368
Source of Variance	df	MS	F	p	E ²	
Between groups	3	.172	.649	.75	.010	
Within groups	216	.265				

N = Number of groups

Nr = Number of total raters in groups

Question 3D

Is there a relationship between the number of evaluators in an evaluator group and administrator image?

The mean scores for six levels of group size shown in Table 19 indicate that the two largest sized groups rated administrators lower than the four smaller groups. The confidence level, p , is .06 and the strength of association, E^2 , is .037. These data suggest that smaller groups are more likely to rate administrators higher than larger groups.

TABLE 19
SUMMARY AND ANALYSIS OF VARIANCE FOR NUMBER
OF EVALUATORS IN EVALUATOR GROUPS

Number of Evaluators	N	Mean	Variance	SD	SEM	Nr
3-10	63	3.90	.299	.547	.069	461
11-20	85	3.88	.230	.480	.520	1328
21-30	68	3.81	.282	.531	.065	1655
31-45	40	3.93	.211	.460	.074	1465
47-64	22	3.68	.218	.467	.102	1219
80-100	9	3.43	.202	.450	.159	733
Source of Variance		df	MS	F	p	E ²
Between groups		5	.557	2.151	.06	.037
Within groups		281	.259			

N = Number of groups

Nr = Number of total raters in groups

The confidence levels, p , given in Table 20 for the two largest groups compared with every other group range from .25 to .005 with the p for the difference between the largest and smallest group at .01. Two possible explanations for these results are, (1) smaller groups have greater opportunity to establish rapport with administrators and thereby perceive the administrator more favorably on the dimensions measured by effectiveness ratings, and (2) administrators are actually more effective with smaller groups.

TABLE 20
COMPARISON BETWEEN RATINGS BY VARIOUS
SIZE EVALUATOR GROUPS

Number of Evaluators	t -value	df	p
80-100 and 47-64	1.29	29	.1
80-100 and 31-45	2.86	47	.005
80-100 and 21-30	2.01	75	.025
80-100 and 11-20	2.62	92	.005
80-100 and 3-10	2.42	70	.01
47-64 and 31-45	2.01	60	.025
47-64 and 21-30	1.04	88	.25
47-64 and 11-20	1.73	105	.05
47-64 and 3-10	1.70	83	.05

Question 3E

Is there a relationship between the type of group, teachers, administrators, service personnel, or board members, rating an administrator and administrator image?

Examination of the mean scores for the four types of groups represented in Table 21 suggest that teacher groups and administrator groups rate administrators lower than service personnel groups and board member groups. The confidence level for this difference, p , is .05. The strength of association, E^2 , is .030. The data contained in Table 22 indicate a high level of confidence for the difference between teacher group means and the means of the three other groups. The lower p , .1 for teachers-board members reflects the small N , 6,

TABLE 21
SUMMARY AND ANALYSIS OF VARIANCE
FOR TYPE OF EVALUATOR GROUP

Group Type	N	Mean	Variance	SD	SEM	Nr
Teachers	223	3.81	.270	.519	.035	6155
Administrators	55	3.95	.211	.459	.062	560
Service Personnel	12	4.13	.253	.504	.152	88
Board Members	6	4.12	.098	.313	.140	48
Source of Variance	df	MS	F	p	E^2	
Between groups	3	.778	3.01	.05	.030	
Within groups	292	.258				

N = Number of groups

Nr = Number of total raters in groups

of the board member group. E^2 indicates group type and administrator image share three per cent of the common variance in an effectiveness rating.

The analysis suggest that administrators may expect higher effectiveness ratings from service personnel and board members and lower ratings from teachers. This finding is consistent with the factor analysis reported earlier. The factor analysis indicated that service personnel and board member ratings were loaded higher on the general evaluative factor than were ratings by teachers.

TABLE 22
COMPARISON BETWEEN RATINGS BY VARIOUS
TYPES OF EVALUATOR GROUPS

Types Compared	<u>t</u> -value	df	p
Teachers and Administrators	1.84	276	.05
Teachers and Service Personnel	2.12	233	.025
Teachers and Board Members	1.45	227	.1
Administrators and Service Personnel	1.23	65	.1
Administrators and Board Members	.87	59	.25

Question 3F

Is there a relationship between the educational level of the group rating an administrator and administrator image?

Inspection of the means for the five levels of college education presented in Table 23 shows that groups whose members have attended college rated administrators highest, while groups composed of college

TABLE 23
SUMMARY AND ANALYSIS OF VARIANCE FOR EDUCATIONAL
LEVEL OF EVALUATOR GROUPS

Educational Level	N	Mean	Variance	SD	SEM	Nr
No college	10	3.97	.222	.471	.157	123
Some college	10	4.20	.148	.384	.128	126
Graduate	195	3.79	.247	.497	.035	5404
Master's	34	3.90	.387	.622	.108	938
Master's plus	40	3.94	.173	.416	.067	383
Source of Variance	df	MS	F	p	E ²	
Between groups	4	.608	2.397	.05	.033	
Within groups	284	.253				

N = Number of groups

Nr = Number of total raters in groups

graduates rated administrators lowest. The table displays a confidence level, p , of .05 for the difference between all means. The strength of association indicates that educational level and administrator image share over three per cent of common variance. Table 24 displays high confidence levels for the comparisons between graduate--some college, graduate--master's, and some college--master's plus, levels of college education. The analysis suggests that interpreters should take into account the educational level of evaluators when interpreting group ratings of administrator effectiveness.

TABLE 24
COMPARISON BETWEEN RATINGS FOR EVALUATOR
GROUPS OF VARIOUS EDUCATIONAL LEVELS

Educational Level	<u>t</u> -value	df	p
Graduate and No college	1.10	203	.25
Graduate and Some college	2.54	203	.01
Graduate and Master's	1.11	227	.25
Graduate and Master's plus	1.77	233	.05
Some college and No college	1.14	18	.25
Some college and Master's	1.41	42	.1
Some college and Master's plus	1.74	48	.05

This section has described results of analyses pertaining to the relationships between selected demographic variables and administrator image. Results of the analyses suggested that there is little, if any, relationship between the independent variables: (1) number of males and females, (2) average age, (3) level of experience of a teacher evaluator group, and the dependent variable administrator ratings. The analyses suggested that there are meaningful relationships between the independent variables: (1) number of evaluators in an evaluator group, (2) type of group, (3) educational level of members of an evaluator group, and the dependent variable administrator ratings.

The nature of the relationships between demographic variables and administrator ratings seems to be such that persons interpreting

administrator ratings, obtained under similar circumstances, may expect higher scores for administrators evaluated by: (1) small groups, (2) service personnel or board members, (3) groups holding advanced degrees, and (4) groups having some or no college education.

Interpreters apparently may also expect the group characteristics, percentage of males or females, average age, and experience in the school system to have little or no influence upon administrator effectiveness ratings.

The following section describes results of analyses related to situational variables and administrator ratings.

Question 4 -- Situational Variables

What are the relationships between selected situational variables and group perception of administrator effectiveness?

The one-way analysis of variance model was used to answer question 4A, and the product-moment coefficient of correlation model was used to answer questions 4B and 4C.

Question 4A

Is there a relationship between the socio-economic status of the community and administrator image?

The data given in Table 25 suggest there is little if any relationship between the socio-economic status of the community in which administrators are employed and group ratings of administrator effectiveness. The level of confidence, .75, and strength of association, .003, indicate little strength and confidence in the differences between means. This also suggests that evaluators represented in this

study, (teachers, administrators, service personnel, and board members), did not seem to regard administrators in low, high or average socio-economic status communities differently.

TABLE 25
SUMMARY AND ANALYSIS OF VARIANCE FOR
SOCIO-ECONOMIC STATUS OF COMMUNITY

Community Status	N	Mean	Variance	SD	SEM	Nr
Low	19	3.74	.221	.471	.110	416
Average	227	3.86	.242	.492	.033	5106
High	47	3.85	.359	.600	.088	1358
Source of Variance		df	MS	F	p	E ²
Between groups		2	.129	.492	.75	.003
Within groups		290	.262			

N = Number of groups

Nr = Number of total raters in groups

Question 4B

Is there a relationship between group image as perceived by the administrator who is being rated and administrator image?

Since the mean scores for both group image and administrator image offered continuous measures, a product-moment correlation coefficient model was used to analyze the data. Table 26 illustrates the values obtained from the analysis. The N of 284 represents 221 teacher, 49 administrator, 10 service personnel, and four board member

groups rating 243 administrators. The correlation between administrator's ratings of their evaluators and evaluator's ratings of administrators was .277. This correlation was significant at the .001 level of confidence. The coefficient of determination, r^2 , indicates that administrator image and group image share .077 per cent of the common variance. It appears that ratings administrators and evaluators make of each other are reciprocal. That is, the positive or negative perception administrators have of evaluator groups will likely be reflected in administrator effectiveness ratings.

TABLE 26
EXTENT OF AGREEMENT BETWEEN GROUP
IMAGE AND ADMINISTRATOR IMAGE

Pair	N	Nr	r	p	r^2
Group x Administrator	284	6884	.277	.001	.077

N = Number of groups

Nr = Number of total raters in groups

Question 4C

Is the relationship between group image and administrator image similar for superintendents, assistant superintendents, high school principals, junior high school principals, elementary principals, and assistant principals?

Table 27 illustrates the composition of the total group, by group types, who rated and were rated by administrators. It is apparent the ratings generally represent teacher-administrator images.

TABLE 27

COMPOSITION OF GROUPS WHO RATED AND
WERE RATED BY ADMINISTRATORS

Position	Groups Rating Position					Total
	N	Teachers	Administrators	Service Personnel	Board Members	
Superintendent	21	14	5	1	3	23
Assistant Superintendent	20	4	18			22
High School Principal	69	69	6	2	1	78
Junior High Principal	32	32				32
Elementary Principal	68	70	8	7		85
Assistant Principal	16	13	3			16

However, superintendents and assistant superintendents were rated by a number of groups other than teachers. Table 28 shows the extent of agreement between group image as perceived by the administrator and administrator image as perceived by the same groups. Two pairs of ratings vary together with a high level of confidence, group - superintendent, and group - assistant superintendent. Each of these pairs of ratings also had high coefficients of determination. The

data indicate that the extent of agreement between group image and administrator image varies with administrator position. The nature of this relationship is such that superintendents and assistant superintendents seem to have a greater mutuality between group image and administrator image, than do principals.

TABLE 28
EXTENT OF AGREEMENT BETWEEN GROUP IMAGE AND
ADMINISTRATOR IMAGE FOR SIX POSITIONS

Pair	N	Nr	r	p	r ²
Group x Superintendent	23	777	.591	.005	.35
Group x Assistant Superintendent	22	267	.715	.001	.51
Group x High School Principal	78	2531	.103	.25	.01
Group x Junior High Principal	32	935	.331	.05	.11
Group x Elementary Principal	85	1436	.175	.1	.03
Group x Assistant Principal	16	477	.411	.1	.17

This section has described results of analyses pertaining to relationships between selected situational variables and administrator image. Results of the analyses suggest that there is little strength and low level of confidence in the relationship between the independent variable socio-economic status of the community and the dependent variable of administrator image.

The analyses indicate that there is high confidence and moderate strength in the agreement between group image as perceived by administrators and administrator image as perceived by the same groups. Wilson (1971) examined teacher effectiveness ratings using the Teacher Image Questionnaire. He found a similar relationship between teacher ratings of students and student ratings of teachers. Knowing an administrator's rating of his evaluators does reduce the uncertainty about administrator effectiveness ratings. The analyses further indicated that the strength and confidence in the extent of agreement between group image and administrator image varies with the position of the administrator. Superintendents and assistant superintendents seem to have a greater mutuality between group image and administrator image than do principals.

The following section describes results of data analyses related to the interaction between selected idiographic, demographic, and situational variables and administrator image.

Question 5 -- Interaction of Variables

What are the relationships between the interaction of selected idiographic, demographic, and situational variables and group perception of administrator effectiveness?

A factorial analysis of variance model was used to answer questions 5A, 5B, and 5C.

Question 5A

Is there a relationship between the interaction of average group age and administrator age with administrator image?

Question 5B

Is there a relationship between the interaction of position held by administrators and age of the administrator with administrator image?

While the data shown in Table 30 indicate that superintendents and assistant superintendents 27-35 years of age were rated highest and high school principals and junior high school principals 46-64 years

TABLE 30

SUMMARY AND ANALYSIS OF VARIANCE FOR ADMINISTRATOR
POSITION AND ADMINISTRATOR AGE

Administrator Age Level	Administrator Position					
	Superintendent and Assistant Superintendent	N	High and Junior High Principals	N	Elementary Principals	N
27-35	4.02	4	4.03	27	3.90	36
36-45	3.84	25	3.75	55	3.73	31
46-64	3.88	21	3.65	27	3.80	20
Source of Variance	df		MS	F	p	E ²
Administrator age	2		.685	2.6	.10	.022
Administrator position	2		.157	.6	.50	.005
Interaction	4		.125	.4	.75	.002
Error	237		.259			

of age were rated lowest, no trend other than the relationship noted earlier for age is apparent. Table 29 also displays low confidence levels and low strengths of associations. This confirms the relatively weak effect on the criterion measure. While knowing the age of an administrator reduces uncertainty about administrator ratings, apparently the interaction of administrator age with administrator position does not further reduce the uncertainty about administrator ratings.

Question 5C

Is there a relationship between the interaction of the socio-economic status of the community and highest degree held by administrators with administrator image?

The means illustrated in Table 31 are quite similar in value. The confidence levels and strengths of associations are negligible and indicate that almost none of the variance in administrator ratings can be attributed to the interaction effect of community socio-economic status with administrator educational degree.

This section has described results of analyses concerned with the relationships between the interaction of selected idiographic, demographic, and situational variables and administrator image. Results of the analyses suggested that there is little or no strength and confidence in the significance of the interactions investigated. Apparently the interactions between, (1) administrator age and administrator position, (2) administrator age and group age, and (3) community socio-economic status and educational level of the

TABLE 31
SUMMARY AND ANALYSIS OF VARIANCE FOR SOCIO-ECONOMIC
LEVEL AND DEGREE LEVELS

Socio-Economic Level	Degree Held by Administrators					
	Bachelors and Masters	N	Specialist	N	Doctors	N
Low and average	3.86	209	3.85	16	3.90	22
High	3.85	33	3.89	9	3.78	5

Source of Variance	df	MS	F	p	E ²
Socio-economic	1	.020	0	0	.000
Degree	2	.005	0	0	.000
Interaction	2	.046	.1	.90	.001
Error	263	.268			

administrator, are all unrelated to group perceptions of administrator effectiveness.

Summary

Results of analyses of data were presented in this chapter. Nine separate factor analyses were computed. Results of the factor analyses indicate that while there is some difference in the strength of loading for various types of evaluator groups and various administrative positions, the AIQ basically loads on one general evaluative

factor. This factor is indicative of an overall high or low regard for the administrator.

Seventeen additional questions were investigated to determine the relationships between thirteen selected independent idiographic, demographic and situational variables and the dependent variable administrator image. Table 32 summarizes the level of confidence and strength of association for each of the thirteen independent variables.

TABLE 32
LEVEL OF CONFIDENCE AND STRENGTH OF ASSOCIATION
FOR INDEPENDENT VARIABLES

Source	p	E ²
Idiographic variables		
Administrator position	.25	.032
Administrator highest degree	.90	.002
Administrator age	.05	.044
Administrator years in position	.025	.041
Administrator total administrative experience	.75	.017
Demographic variables		
Group percentage of males and females	.90	.01
Group average age	.90	.004
Teacher group experience in position	.75	.01
Group size	.06	.037
Group type	.05	.030
Group educational level	.05	.033
Situational variables		
Community socio-economic status	.75	.003
Group image	.001	(.077 r ²)

The independent situational variable, group image, was also further analyzed for its relationship with specific administrative

positions. The analysis indicated that level of confidence and strength of determination vary considerably with administrative position.

Five independent variables were reexamined for their interaction with administrator image. Three combinations were studied; (1) administrator age--administrator position, (2) socio-economic status of the community--highest degree held by administrators and (3) administrator age--group age. The results indicated little or no confidence and little or no strength in the interactions.

In the following chapter, conclusions, implications, and recommendations suggested by the results of the analyses are presented.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

Group perceptions of administrators are considered by many to offer important information related to administrator effectiveness. However, at the present time educators are in disagreement about the meaning of inferences which can be drawn from such perceptions and their value as compared to ratings obtained by other means. Perhaps the most important strength of group ratings of administrator effectiveness is that such ratings provide a measure of the interpersonal relationships between administrator and reference groups.

The purpose of this study was to further clarify the meaning of school administrator effectiveness as perceived by evaluator reference groups. The objective was to examine the relationships between selected idiographic, demographic, and situational variables and group ratings of administrators. The idiographic variables descriptive of administrators were: position, education, age, and experience. Demographic variables descriptive of evaluator groups were: sex, age, experience, size, type and education. Situational variables of community socio-economic status and administrator perception of evaluators were also investigated.

The criterion measure was factor analyzed to facilitate interpretation of the findings and aid in understanding the nature of group ratings of administrators. Analysis of variance models were used to examine relationships between and among selected idiographic, demographic,

and situational variables and group ratings of administrators. When analysis of variance produced F-ratios of at least .06 significance, an adjusted t-test was used to compare the cells that appeared to account for most of the variance. Product-moment coefficients of correlation were used to analyze the extent of agreement between administrator perception of evaluators and group ratings of administrator effectiveness. Decisions regarding the significance of relationships between variables were based on both the probability of observing measured differences by chance and the strength of association.

Group rating of the administrator was the dependent variable in this study. The instrument used to assess the dependent variable was the Administrator Image Questionnaire (AIQ). This instrument was developed by personnel associated with the Educator Feedback Center at Western Michigan University to provide feedback to administrators. The AIQ measures group reaction to administrator attitudes, understandings, skills, and behavior. Since the factor analyses conducted for this study revealed one general evaluative factor that accounted for about three-fourths of the variance in group ratings, the total mean score for each group rating an administrator was used as the measure of the dependent variable. Data related to the independent variables were obtained from the Class ID Form and Administrator ID Form that accompanied each group rating of an administrator.

The sample consisted of all administrators who used the Educator Feedback Center service during the 1968-69 and 1969-70 school years. The sample encompassed a total of 7004 ratings for 249 administrators

who held positions as superintendents, assistant superintendents, principals, assistant principals, and other administrative personnel. The groups who rated the administrators were composed largely of teachers, while administrators, service personnel, and other groups provided a much smaller number of ratings. A total of 303 groups rated the administrators. The subjects were employed by schools in Michigan, Ohio, Indiana and Illinois.

Conclusions

In order to carry out the specific objective of the study five major questions were formulated and investigated. The five questions, a summary of the findings, and conclusions relative to each question follow:

Question 1

What are the number and nature of factors that underlie group perceptions of administrator effectiveness?

One primary factor, which accounted for about three-fourths of the total variance in group ratings of administrator effectiveness, was identified and labeled. This factor was a general evaluative factor indicative of high to low regard for the administrator being rated. Another factor, which accounted for about five per cent of the total variance in group ratings of administrators, was labeled person-centered. These findings are consistent with the research of Osgood, Suci, and Tannenbaum (1957, p. 72) who state, "A pervasive evaluative factor in human judgment regularly appears first and accounts for approximately half to three-fourths of the extractable variance."

Eight additional factor analyses based on different reference groups were conducted, and while the general evaluative factor varied with evaluator groups and administrative positions it accounted for a minimum of 66 per cent and a maximum of 82 per cent of the variance in ratings. Factor loadings were higher for principals and lower for superintendents. Service personnel groups were most influenced by the general evaluative factor and administrator groups were least influenced by the same factor.

Apparently administrators were more discriminating when evaluating other administrators than were service personnel. Raters of superintendents were influenced less by the general evaluative factor than were raters of principals.

Question 2

What are the relationships between five selected idiographic variables descriptive of administrators and group perception of administrator effectiveness?

1. Administrator position and administrator ratings were not meaningfully related.
2. Highest degree held by administrator was found to be unrelated to group ratings of administrators.
3. Administrator age was meaningfully related to group ratings of administrators. The level of confidence for this relationship was .05 and the variables shared over four per cent common variance. The nature of this relationship was such that administrators aged 31 to 40 were perceived

more favorably than younger or older administrators.

The youngest (27-30) and the oldest (56-65) administrators were rated lower than administrators of any other age level.

4. Administrator years in present position and group ratings of administrators were significantly related. There was a high level of confidence (.025) for the relationship and the variables shared over four per cent common variance. The relationships were curvilinear and such that evaluators reacted most favorably to administrators serving the fifth through ninth years in their present positions and least favorably to second year administrators. A "honeymoon" effect was noted whereby the first year administrator was perceived almost as favorably as the fifth through ninth year administrator. This "honeymoon" effect was accented by the finding that second year administrators were rated lower than administrators at any other level.
5. Total administrative experience -- This variable had little significant relationship with ratings of administrators.

Question 3

What are the relationships between six selected demographic variables descriptive of evaluator groups and their perception of administrator effectiveness?

1. Evaluator group percentage of males and females -- Statistical analyses indicated that the percentage of male or female evaluators in an evaluator group had no meaningful relationship with administrator ratings.
2. Evaluator group average age -- Evaluator groups representing four levels of average age rated administrators similarly. This suggests that administrator effectiveness ratings have little relationship with the average age of evaluator groups.
3. Teacher group experience in position -- Teacher groups with over half of the members having either 0 to 3, 4 to 11, over 11, or none of these levels of experience rated administrators in a manner that suggests there was little relationship between the number of years group evaluators had been teaching in a school system and administrator ratings.
4. Evaluator group size was meaningfully related to group ratings of administrators. The level of confidence for this relationship was .06 and the variables shared almost four per cent of the common variance in administrator ratings. The nature of these relationships was curvilinear and such that large groups (more than 45 members) perceived their administrators less favorably than did groups with fewer evaluators. The level of confidence for the difference between mean scores of the largest and smallest groups was .01.

5. Evaluator group type was significantly related to administrator ratings at the .05 level of confidence. The variables shared three per cent of the common variance in administrator ratings. Four group types were examined: teacher, administrator, service personnel and board member. Teacher groups and administrator groups rated administrators lower than did service personnel and board members. Teachers rated administrators significantly lower than did all other evaluator groups.
6. Evaluator group educational level was significantly related to administrator ratings. The level of confidence for this relationship was .05 and the variables shared over three per cent of the common variance in administrator ratings. The nature of the relationship was curvilinear and groups with some college, groups with no college, and groups with master's plus rated administrators higher than groups with bachelor's and groups with master's degrees. Groups with some college rated administrators higher than all other groups and groups with bachelor's degrees rated administrators lower than all other groups.

Question 4

What are the relationships between selected situational variables and group perception of administrator effectiveness?

Community socio-economic status was found to have little, if any, relationship to group ratings of administrators.

Administrator perception of evaluators or group image was found to have a meaningful relationship with administrator ratings. Those administrators who had high regard for the group evaluating them were viewed more favorably than those administrators having low regard for their evaluator groups. The level of confidence for this correlation was .001 and the variables shared over seven per cent of the common variance in administrator ratings. While administrator perception of the group and group perception of the administrator were positively correlated the cause and effect relationship of this phenomenon was not apparent.

An analysis was conducted to determine if the relationship between administrator perception of the group and group perception of the administrator were similar for various administrator positions. It was found that the relationship was not similar. Superintendents and assistant superintendents had a greater reciprocity between ratings with their evaluators than did principals.

Question 5

What are the relationships between the interaction of selected idiographic, demographic and situational variables and group perception of administrator effectiveness?

Five independent variables were reexamined in order to answer question 5. Three combinations were studied, (1) administrator age -- administrator position, (2) community socio-economic status -- administrator education, and (3) administrator age -- group age. The analyses suggested that little if any of the variance in administrator ratings

could have been attributed to the interaction effect between each combination of variables examined and administrator ratings.

A review of the preceding conclusions reveals the following variables to have meaningful relationships with group perception of administrator effectiveness.

1. Administrator age.
2. Administrator years in present position.
3. Evaluator group size.
4. Evaluator group type.
5. Evaluator group educational level.
6. Administrator perception of evaluators (group image).

The following variables had little or no relationship with group perception of administrator effectiveness.

1. Administrator position.
2. Highest degree held by administrators.
3. Total administrative experience.
4. Evaluator group percentage of males and females.
5. Evaluator group average age.
6. Teacher group experience in position.
7. Community socio-economic status.

Implications

The findings of this study led to the identification of six variables that were related to group perception of administrator effectiveness. The findings also provided insight into the nature and strength of those variables. This knowledge has a number of implications,

particularly for the interpretation and use of ratings obtained under conditions similar to those existing in this study.

Administrators or others who wish to accurately interpret group ratings of administrators should consider administrator age and experience in present position as well as evaluator group size, type and educational level. For example, ratings with similar scores obtained from a group of 20 teachers for a 33 year old administrator in the first year as principal and obtained from a group of 75 teachers for a 60 year old administrator in the twentieth year as principal could actually indicate quite different levels of performance.

Consideration of ratings obtained from several types of groups would provide more information for decision making than a rating from one group type. Also, ratings from several types of groups could enhance the knowledge about the effectiveness of an administrator. This possibility exists because of the finding that administrators are perceived more favorably by some type groups than by other group types.

The findings relative to group size also have implications for school district personnel practices. The nature of this relationship was such that smaller groups perceived administrators as more effective than did larger groups. This finding is supported by sufficient other research to suggest that group size be considered when forming administrative units and assigning administrators. If an administrator is recognized as having difficulties interacting with a group, limiting the size of the group might aid in overcoming the difficulties.

Knowledge of the strong relationship between administrator perception of evaluators and evaluator perception of administrators

could also be used in forming administrative units and assigning principals. Such practices may enhance the effectiveness of the administrative unit. The nature of the relationships between administrator perception and evaluator perception suggest that an administrator assigned to lead a group which he perceives to be industrious, competent, enthusiastic, and friendly should greatly increase the probability of the group perceiving the administrator favorably.

The identification in this study of variables that did not have meaningful relationships with group ratings of administrators is perhaps as important as identification of meaningful relationships. A number of current administrative practices such as salary scheduling based on total administrative experience and educational degrees have little justification based on administrator effectiveness as perceived by evaluator groups.

An additional finding of the study should help administrators to recognize the limitations, strengths and meaning of group perception of administrator effectiveness. The factor analyses indicated that evaluators do not respond directly to specific questions concerning administrator effectiveness. Rather, a general evaluative factor determines to a large extent how evaluators react to questions about their administrators. This would imply that administrator ratings are indicative of an overall assessment of administrator effectiveness rather than a precise measure of specific dimensions. This is not to say that individual dimensions are not useful. As indicated in the study at least 20 per cent of the variance in group ratings of

administrators is independent of the general evaluative factor and probably represents fairly objective evaluator judgements.

The findings suggested several implications for further research. The relationship between administrator perception of evaluators and evaluator perception of administrators was identified and to some extent qualified. However, there is a need to investigate the cause and effect relationship between administrator perception of evaluators and evaluator perception of administrators. Do administrator attitudes influence the group rating of administrators or do evaluator attitudes influence the administrator rating of the group? The answer to this question may prove useful in improving administrative interpersonal relationships.

A relationship was shown to exist between the number of years an administrator has served in his present position and the way he is perceived by referent evaluator groups. This relationship was identified and its nature described. Consequently the need to determine the causal factors of this relationship was suggested. Such knowledge could be helpful in improving administrator referent group interactions.

Thirteen selected variables were examined in this study. There are numerous other variables that may be hypothesized to be related to group perception of administrator effectiveness. Those variables, for which appropriate data were not available, that seemed worthy of investigation were: (1) race of both evaluator and administrator, (2) sex of the administrator, (3) academic preparation of the administrator, (4) congruence of administrator and referent evaluator attitudes, beliefs and values, (5) congruence of administrator and referent group behavioral

patterns, and (6) criteria or dimensions of ratings as represented by questions posed for evaluators.

Finally, while the study has provided knowledge related to group ratings of administrators, additional research is needed to determine the relationships between these perceived behaviors and other measures of administrative behavior.

SELECTED BIBLIOGRAPHY

- Amatora, Sister Mary, "A Diagnostic Teacher-Rating Scale." The Journal of Psychology, XXX, (1950), 395-397.
- Barnard, Chester I., The Functions of the Executive. Cambridge, Mass.: Harvard University Press, 1938.
- Bewley, Frederick Winslow, "The Characteristics of Successful School Superintendents." Unpublished Doctor's dissertation, University of Southern California, 1960.
- Blake, R. R., and Mouton, J. S., The Managerial Grid. Houston, Texas: Gulf Publishing Co., 1964.
- Boles, Harold W., Leaders, Leading, and Leadership: A Theory. Unpublished manuscript, Kalamazoo, Michigan: Western Michigan University, 1970.
- Brown, Alan F., "Reactions to Leadership." Educational Administration Quarterly, Winter (1967), 62-73.
- Bryan, Quentin Roosevelt, "The Influence of Certain Characteristics of Teachers and Teacher Raters on the Quality of Formal Teacher Appraisal." Unpublished Doctor's dissertation, University of Southern California, 1962.
- Bryan, Roy C., "Some Observations Concerning Written Student Reactions to High School Teachers," 1967-68 Annual Report -- Student Reaction Center. Kalamazoo, Michigan: Western Michigan University, 1968.
- Bryan, Roy C., "The Teachers Image is Stubbornly Stable." The Clearing House, 40, (April, 1966), 459-461.
- Bush, Robert Nelson, The Teacher-Pupil Relationship. New York: Prentice-Hall, Inc., 1954.
- Campbell, Roald T., "Situational Factors in Educational Administration." In Campbell, R. T., and Gregg, R. T. (Eds.), Administrative Behavior in Education. New York: Harper and Brothers, 1957, 228-268.
- Coats, William C., "Significant Differences." Educational Researcher, Vol. 21, (June 1970), 6-7. A
- Coats, William D., "Student Perception of Teachers -- A Factor Analytic Study." Unpublished paper presented at American Education Research Association Annual Meeting, Minneapolis, Minnesota, March 2-2, 1970.

- Coffeen, Richard Owen, "An Evaluation of Certain Factors Relating to the Qualifications of Elementary School Principals in Selected School Districts Throughout the United States." Unpublished Doctor's dissertation, Auburn University, 1961.
- Della Piana, G. M., and Gage, N. L., "Pupils' Values and the Validity of the Minnesota Teacher Attitude Inventory." Journal of Educational Psychology, XLVI, (1955), 167-178.
- Educator Feedback Center, "Interpreting and Utilizing Your Administrator Image Profile." Unpublished supplementary material, Educator Feedback Center, Western Michigan University. Kalamazoo, Michigan, 1970.
- Ellena, William J., Who's a Good Teacher. Washington, D. C.: American Association of School Administrators, 1961.
- Getzels, Jacob W., Lipham, James M., and Campbell, Roald T., Educational Administration as a Social Process. New York: Harper and Row, Publishers, 1968.
- Gibb, Cecil A., "Leadership." In Lindzey, G., and Aronson, E. (Eds.), Handbook of Social Psychology, Vol. II. Reading, Mass.: Addison-Wesley Publishing Co., Inc., 1954, 877-920.
- Gross, Neal C., and Herriott, Robert E., Staff Leadership in Public Schools: A Sociological Inquiry. New York: Wiley, 1965.
- Guilford, J. P., Fundamental Statistics in Psychology and Education, Fourth Edition. New York: McGraw-Hill Book Co., 1965.
- Halpin, Andrew W., "A Paradigm for Research on Administrator Behavior." In Campbell, R. T. and Gregg, R. T. (Eds.), Administrative Behavior in Education. New York: Harper and Brothers Publishers, 1957, 155-199.
- Halpin, Andrew W., "The Behavior of Leaders." In Heald, J. E., Romand, L. G., and Georgiady, N. P. (Eds.), Selected Readings on General Supervision. New York: The Macmillan Co., 1970, 138-144.
- Halpin, Andrew W., The Leadership Behavior of School Superintendents: The Perceptions of Board Members, Staff Members, and Superintendents. Columbus, Ohio: College of Education, The Ohio State University, 1956.
- Hays, William L., Statistics. New York: Holt, Rinehart, and Winston, 1963.
- Jenkins, D. H., and Blackman, C. A., Antecedents and Effects of Administrative Behavior. Columbus, Ohio: University Press, The Ohio State University, 1956.

- Kepner, C. H., and Tregoe, B. B., The Rational Manager. New York: McGraw-Hill Book Co., 1966.
- Kerlinger, Fred N., Foundations of Behavioral Research. New York: Holt, Rinehart, and Winston, Inc., 1964.
- Kimbrough, Ralph B., "The Behavioral Characteristics of Effective Educational Administrators." Educational Administration and Supervision, 45 (November 1959), 337-348.
- Lewin, George Joel, Jr., "An Analysis of Leadership Characteristics in Relationship to the Tenure of Successful School Superintendents in Connecticut." Unpublished Doctor's dissertation, The University of Connecticut, 1965.
- Mitzel, Harold E., "Teacher Effectiveness." In Harris, C. W. (Ed.), Encyclopedia of Educational Research, Third Edition. New York: Macmillan Co., 1960, 1481-1486.
- Morris, R. T., and Seeman, M., "The Problem of Leadership: An Interdisciplinary Approach." In Browne, C. G. and Cohn, T. S. (Eds.), The Study of Leadership. Danville, Illinois: The Interstate Printers and Publishers Inc., 1958, 12-21.
- Mott, Theral J., "The Relationship of Certain Biographical Information to the Performance of Elementary School Principals." Unpublished Doctor's dissertation, University of Utah, 1966.
- Osgood, Charles E., Suci, George J., and Tannenbaum, Percy H., The Measurement of Meaning. Urbana, Illinois: University of Illinois Press, 1957.
- Owens, Robert G., Organizational Behavior in Schools. Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1970.
- Peets, Elvin F., "A Comparative Study of Factors Related to Innovation in Selected Public School Districts of Southern Lower Michigan." Unpublished Doctor's dissertation, Western Michigan University, 1970.
- Peterson, Warren A., "Age, Teacher's Role and the Institutional Setting." In Biddle, B. J., and Ellena, W. J. (Eds.), Contemporary Research on Teacher Effectiveness. New York: Holt, Rinehart and Winston, 1964, 264-315.
- Pierce, Truman M., and Merrill, E. C., Jr., "The Individual and Administrative Behavior." In Campbell, R. T., and Gregg, R. T. (Eds.), Administrative Behavior in Education. New York: Harper and Brothers, 1957, 318-353.

- Ryans, David G., Characteristics of Teachers. Washington, D. C.: American Council on Education, 1962.
- Reddin, W. J., "The 3-D Management Style Theory." Training and Development Journal, XXI, (April 1967), 8-17.
- Schutz, William C., Leaders of Schools. Cooperative Research Project No. 1076, Office of Education, U. S. Department of Health, Education, and Welfare, 1966.
- Simon, Herbert A., "Administrative Behavior." In Sills, David L. (Ed.), International Encyclopedia of the Social Sciences, Vol. 1. New York: The Macmillan Co. and the Free Press, 1968, 74-79.
- Stalnaker, J. M., and Remmers, H. H., "Can Students Discriminate Traits Associated With Success in Teaching." Journal of Applied Psychology, XII, (1928), 602-610.
- Starrak, J. A., "Student Rating of Instruction." Journal of Higher Education, V, (1934), 88-90.
- Stogdill, Ralph M., "Leadership, Membership and Organization." In Browne, C. G., and Cohn, T. S. (Eds.), The Study of Leadership. Danville, Illinois: The Interstate Printers and Publishers, Inc., 1958, 31-40.
- Stogdill, Ralph M., "Personal Factors Associated With Leadership: A Survey of the Literature." Journal of Psychology, Vol. 25, (1948), 35-71.
- Stout, Robert and Briner, Conrad, "Leadership." In Ebel, Robert L. (Ed.), Encyclopedia of Educational Research, Fourth Edition. New York: The Macmillan Co., 1969, 699-706.
- Tagiuri, Renato, "Perception: Person Perception." In Sills, D. L. (Ed.), International Encyclopedia of the Social Sciences, Vol. 11. New York: The Macmillan Co. and the Free Press, 1968, 560-567.
- Tajfel, Henri, "Perception: Social Perception." In Sills, D. L. (Ed.), International Encyclopedia of the Social Sciences, Vol. 11. New York: The Macmillan Co. and the Free Press, 1968, 567-575.
- Wilson, Dale T., "A Study of Factors Related to Student Ratings of Teachers." Unpublished Doctor's dissertation, Western Michigan University, 1971.

APPENDIX A

ADMINISTRATOR IMAGE QUESTIONNAIRE

Please respond to the following questions honestly and frankly. Do not give your name. All responses are anonymous. Neither the administrator about whom these questions are asked nor anyone else will ever be able to associate your responses with you.

Immediately after completion, your responses, along with responses of others from your group, will be sent to Western Michigan University for analysis. Image profiles representing how your administrator is perceived along several dimensions by your group will then be sent to him. The profile is sent to no one else unless so requested by your administrator.

Fill in the blank which represents your reaction to each question. Be sure to fill in only one blank for each question. If you change an answer be sure to erase thoroughly the incorrect mark. PLEASE USE LEAD PENCIL.

WHAT IS YOUR OPINION CONCERNING THIS ADMINISTRATOR'S:

	POOR	FAIR	AVG.	GOOD	EXC.
1. VERBAL FLUENCY: (Does he express his ideas smoothly? Is he articulate?)	==	==	==	==	==
2. CONSIDERATION OF OTHERS: (Is he patient, understanding, considerate and courteous?)	==	==	==	==	==
3. ATTITUDE TOWARD HIS JOB: (Does he show interest and enthusiasm toward his work?)	==	==	==	==	==
4. TECHNICAL COMPETENCE: (Does he have a thorough knowledge and understanding of his field?)	==	==	==	==	==
5. ACHIEVEMENT DRIVE: (Does he have the initiative and persistence needed to accomplish meaningful goals?)	==	==	==	==	==
6. SUPPORTIVENESS: (Does he support those responsible to him?)	==	==	==	==	==

ADMINISTRATOR IMAGE QUESTIONNAIRE--Continued

	POOR	FAIR	AVG.	GOOD	EXC.
7. FLEXIBILITY: (Is he able to adjust rapidly to changes in plans or procedures?)	==	==	==	==	==
8. PERFORMANCE UNDER STRESS: (How does he function under pressure?)	==	==	==	==	==
9. OPENNESS: (Does he consider divergent views?)	==	==	==	==	==
10. ENCOURAGEMENT OF STAFF PARTICIPATION: (Does he encourage you to raise questions and express opinions?)	==	==	==	==	==
11. ABILITY TO DELEGATE RESPONSIBILITY: (Does he assign tasks to personnel capable of carrying them out?)	==	==	==	==	==
12. INNOVATIVENESS: (Is he willing to try new approaches or methods?)	==	==	==	==	==
13. SUCCESS IN COMMUNICATING EXPECTATIONS: (Does he clearly define and explain what is expected of staff members?)	==	==	==	==	==
14. FAIRNESS: (Does he treat staff members in an unbiased and impartial manner?)	==	==	==	==	==
15. MAINTENANCE OF STAFF MORALE: (Does he create a feeling of unity and enthusiasm among those in contact with him?)	==	==	==	==	==
16. SENSE OF HUMOR: (Does he have a sense of the ridiculous? Does he laugh at his own mistakes?)	==	==	==	==	==

ADMINISTRATOR IMAGE QUESTIONNAIRE--Continued

	POOR	FAIR	AVG.	GOOD	EXC.
17. DECISION-MAKING ABILITY: (Does the evidence indicate that he is able to make constructive decisions?)	==	==	==	==	==
18. EVALUATING ABILITY: (To what extent does he objectively evaluate programs and practices?)	==	==	==	==	==
19. MANAGERIAL SKILL: (Does he coordinate the efforts of those responsible to him so that the organization operates at peak efficiency?)	==	==	==	==	==
20. AWARENESS: (To what extent is he conscious of the problems that exist on your level?)	==	==	==	==	==
21. SELF-CONTROL: (Does he maintain control of his emotions when things are not going right?)	==	==	==	==	==
22. LEADERSHIP SKILL: (Does his leadership result in the attainment of mutually acceptable goals?)	==	==	==	==	==
23. APPEARANCE: (Are his grooming and attire in good taste?)	==	==	==	==	==
24. IF YOU WISH, PLEASE LIST ONE OR MORE WEAKNESSES OF THIS ADMINISTRATOR:					
25. IF YOU WISH, PLEASE LIST ONE OR MORE STRENGTHS OF THIS ADMINISTRATOR:					

Prepared by: Educator Feedback Center
Western Michigan University
Kalamazoo, Michigan 49001

APPENDIX B

GROUP ID FORM

Educator Feedback Center
School of Education
Western Michigan University

Date: _____

Name of Administrator being rated: _____

Name of School: _____

School Address: _____

Type of Group: _____ teachers _____ administrators

_____ service personnel _____ parents _____ students

_____ board members _____ other

The remaining items on this form are included primarily for research interests of the Educator Feedback Center. Therefore, your responses to the following items are requested but not required.

The approximate educational level of this group is:

_____ no college _____ some college _____ college graduate

_____ M.A. _____ M.A. plus

Please give the appropriate number or symbol for the following questions:

Approximately what percentage of this group is:

_____ female _____ male _____ Caucasian

_____ Negro _____ other

The average age of this group is about _____.

If this is a group of teachers approximately what percentage has been teaching on this job for a period of:

_____ 0-3 years _____ 4-10 years _____ 11 or more years

GROUP ID FORM--Continued

How do you as an administrator perceive this group along the following dimensions:

	Excellent	Good	Average	Fair	Poor
Competent	|	|	|	|	|
Industrious	|	|	|	|	|
Enthusiastic	|	|	|	|	|
Friendly	|	|	|	|	|

APPENDIX C

ADMINISTRATOR ID FORM

Educator Feedback Center
School of Education
Western Michigan University

Date _____

Name _____ Position held _____

School Address _____

Highest Degree earned _____

Major subject area studied in that degree program _____

Race: Caucasian _____ Negro _____ Other _____

Age _____ Sex _____

Marital status: Married _____ Divorced _____ Single _____

Widowed _____

Socio-economic status of the community in which you work:

Low _____ Average _____ High _____

Number of years you have been in present position _____

Number of years you have been in administration _____

Please bill _____

Name of School System

Address

Zip Code

\$10 for each group of reactions identified by a Group ID Form

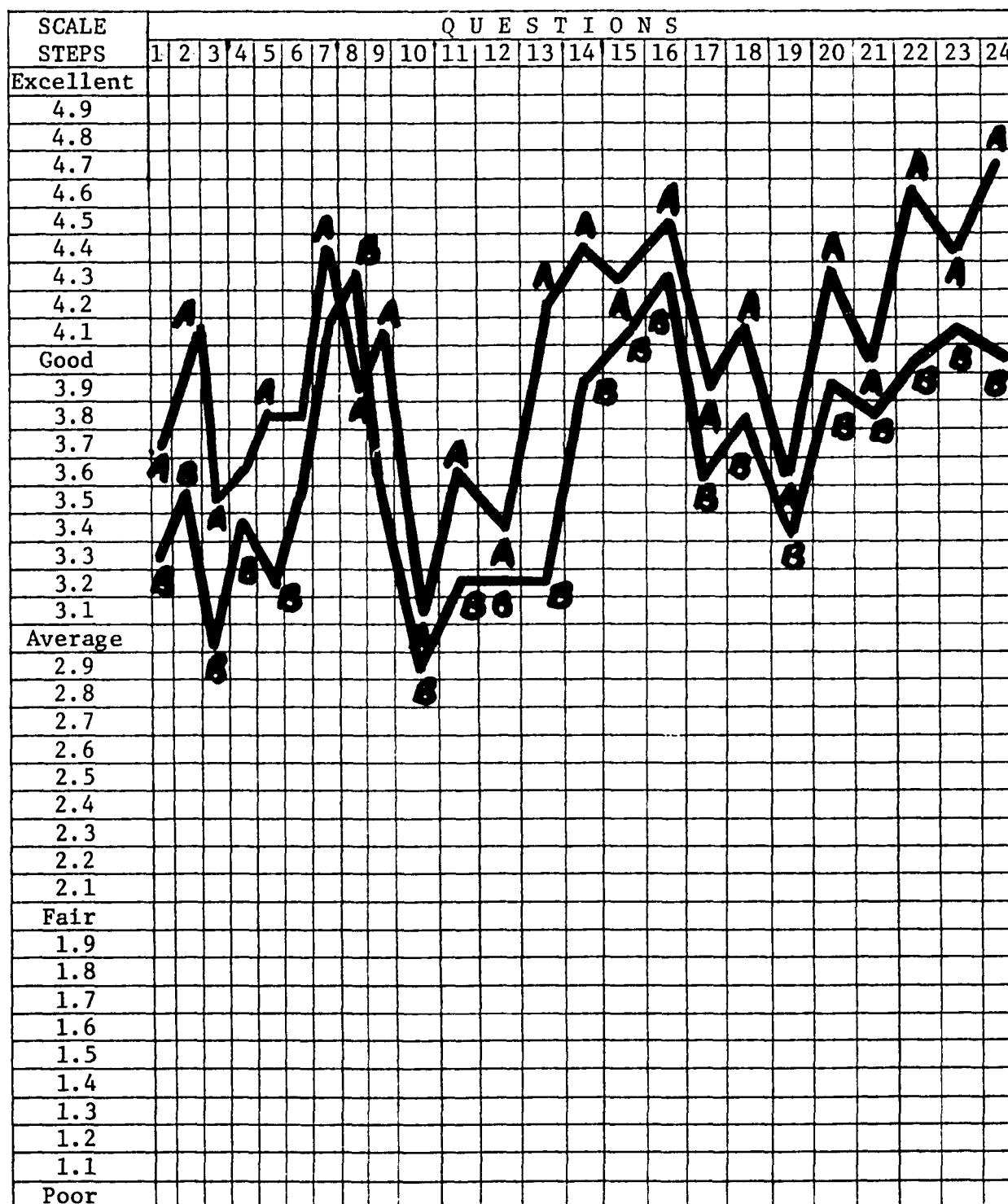
_____ groups @ \$10 per group is equal to \$_____.

APPENDIX D

ADMINISTRATOR IMAGE PROFILE

Administrator: Principal Y No. Sample Date:

Group A: Fellow Administrators Group B: Teachers



ADMINISTRATOR IMAGE PROFILE--Continued

KEY TO QUESTIONS

- | | |
|-----------------------------|-------------------------------|
| 1. Verbal Fluency | 13. Innovativeness |
| 2. Attitude Toward Teachers | 14. Communicating |
| 3. Attitude Toward Job | 15. Fairness |
| 4. Technical Competence | 16. Staff Morale |
| 5. Achievement Drive | 17. Sense of Humor |
| 6. Supportiveness | 18. Decision-Making |
| 7. Adaptability | 19. Evaluating Ability |
| 8. Flexibility | 20. Administrative Skill |
| 9. Performance under Stress | 21. Awareness |
| 10. Openness | 22. Self-Control |
| 11. Staff Participation | 23. Ability as a Group Leader |
| 12. Delegate Responsibility | 24. Appearance |

Prepared by: Educator Feedback Center
Western Michigan University
Kalamazoo, Michigan 49001

APPENDIX E

INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE ELEMENTARY PRINCIPALS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Verbal fluency	*100	65	69	64	68	61	62	66	60	56	55	54	74	59	63	64	74	69	72	62	54	61	49
2 Consideration of others		100	71	74	67	77	83	83	86	84	63	58	72	84	82	82	71	72	75	74	81	74	53
3 Attitude toward his job			100	76	88	70	70	74	70	67	66	71	79	68	79	64	75	74	81	72	66	76	55
4 Technical competence				100	76	73	75	77	73	64	73	51	75	61	75	65	78	80	85	75	64	81	50
5 Achievement drive					100	77	72	78	69	67	64	62	82	64	81	66	83	79	85	72	60	79	52
6 Supportiveness						100	80	79	77	77	63	62	76	74	82	74	71	69	78	70	63	71	52
7 Flexibility							100	89	83	84	69	67	73	78	81	84	77	75	77	72	77	77	46
8 Performance under stress								100	78	81	70	64	81	80	83	80	81	79	83	71	85	81	57
9 Openness									100	80	65	54	66	80	78	77	66	69	71	72	78	76	46
10 Encouragement of participation										100	67	67	67	81	75	84	64	66	70	67	78	67	45
11 Ability to delegate											100	50	65	60	66	67	63	68	74	68	59	70	40
12 Innovativeness												100	51	55	52	61	61	65	61	49	57	45	49
13 Communicating expectations													100	68	79	68	79	78	86	72	64	77	50
14 Fairness														100	82	75	63	66	69	74	81	68	52
15 Maintaining staff morale															100	80	79	80	84	82	77	85	51
16 Sense of humor																100	76	74	74	73	79	77	43
17 Decision-making ability																	100	88	87	72	71	84	58
18 Evaluating ability																		100	91	78	75	84	58
19 Managerial skill																			100	81	72	86	56
20 Awareness																				100	70	81	46
21 Self control																					100	75	54
22 Leadership skill																						100	43
23 Appearance																							100

N groups = 89 N raters = 1504 N principals = 68

*Decimal points omitted

APPENDIX F

FACTOR LOADINGS AND FACTOR LOADINGS SQUARED
FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
ELEMENTARY PRINCIPALS

Questionnaire Item	Factor Loading		Factor Loading Squared		
	I	II	I	II	Total h ²
Verbal fluency . . . . .	.76	.25	.578	.063	.641
Consideration of others . . . .	.89	-.27	.792	.073	.865
Attitude toward his job . . . .	.86	.22	.740	.048	.788
Technical competence . . . . .	.86	.22	.740	.048	.788
Achievement drive . . . . .	.87	.29	.757	.084	.841
Supportiveness . . . . .	.86	-.07	.740	.005	.745
Flexibility . . . . .	.90	-.22	.810	.048	.858
Performance under stress . . . .	.93	-.10	.865	.010	.875
Openness . . . . .	.86	-.27	.740	.073	.813
Encouragement of participation	.85	-.38	.723	.144	.867
Ability to delegate . . . . .	.77	.05	.593	.003	.596
Innovativeness . . . . .	.69	-.07	.476	.005	.481
Communicating expectations . . .	.87	.24	.757	.058	.815
Fairness . . . . .	.84	-.33	.706	.109	.815
Maintaining staff morale . . . .	.92	-.03	.846	.001	.847
Sense of humor . . . . .	.87	-.24	.757	.058	.815
Decision-making ability . . . . .	.88	.26	.774	.068	.842
Evaluating ability . . . . .	.89	.22	.792	.048	.840
Managerial skill . . . . .	.92	.25	.846	.063	.909
Awareness . . . . .	.85	.05	.723	.003	.726
Self control . . . . .	.84	-.28	.706	.078	.784
Leadership skill . . . . .	.89	.12	.792	.014	.806
Appearance . . . . .	.61	.15	.372	.023	.395
Total			16.625	1.127	
Average			.723	.049	.772

N groups = 77 (68 teacher, 4 administrator, 2 service personnel, 1 board member, 1 other, 1 student)

N principals = 69

N raters = 2531

APPENDIX G

INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE JUNIOR HIGH SCHOOL PRINCIPALS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Verbal fluency	*100	57	59	65	69	51	65	63	68	58	71	53	70	52	56	59	72	67	69	63	43	65	44
2 Consideration of others		100	73	72	68	88	87	89	88	91	63	58	65	93	91	88	79	82	74	84	86	89	17
3 Attitude toward his job			100	77	91	69	66	79	67	71	58	72	65	69	69	65	83	77	74	70	65	81	26
4 Technical competence				100	80	77	68	77	75	75	63	58	64	72	74	61	82	79	82	78	60	79	26
5 Achievement drive					100	71	73	80	76	76	74	81	71	69	68	65	87	84	87	76	60	85	24
6 Supportiveness						100	82	86	83	87	68	60	62	89	88	82	84	82	80	86	70	90	15
7 Flexibility							100	88	89	86	81	78	63	87	83	89	79	84	76	85	76	85	12
8 Performance under stress								100	87	86	78	74	67	89	88	87	87	87	81	87	87	91	19
9 Openness									100	95	80	73	71	90	88	85	83	89	85	91	78	90	19
10 Encouragement of participation										100	75	71	65	93	90	87	82	86	81	93	79	91	10
11 Ability to delegate											100	76	66	73	74	76	77	78	78	84	57	76	09
12 Innovativeness												100	55	68	60	68	76	73	71	69	61	74	12
13 Communicating expectations													100	70	73	63	73	85	79	68	50	80	46
14 Fairness														100	92	87	81	87	77	93	86	91	12
15 Maintaining staff morale															100	90	83	87	81	89	76	92	17
16 Sense of humor																100	78	78	67	83	75	85	11
17 Decision-making ability																	100	88	88	84	69	94	34
18 Evaluating ability																		100	91	90	73	94	32
19 Managerial skill																			100	82	60	90	33
20 Awareness																				100	78	90	11
21 Self control																					100	77	07
22 Leadership skill																						100	31
23 Appearance																							100

N groups = 35 N raters = 1070 N principals = 34

*Decimal points omitted

APPENDIX H

FACTOR LOADINGS AND FACTOR LOADINGS SQUARED
FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
JUNIOR HIGH SCHOOL PRINCIPALS

Questionnaire Item	Factor Loading		Factor Loading Squared		
	I	II	I	II	Total h ²
Verbal fluency . . . . .	.71	.43	.504	.185	.689
Consideration of others . . . . .	.91	-.21	.828	.044	.872
Attitude toward his job . . . . .	.82	.18	.672	.032	.704
Technical competence . . . . .	.83	.17	.689	.029	.718
Achievement drive . . . . .	.87	.24	.757	.058	.815
Supportiveness . . . . .	.90	-.16	.810	.026	.836
Flexibility . . . . .	.91	-.16	.828	.026	.854
Performance under stress . . . . .	.95	-.10	.903	.010	.913
Openness . . . . .	.94	-.09	.884	.008	.892
Encouragement of participation . . . . .	.94	-.20	.884	.040	.924
Ability to delegate . . . . .	.83	.01	.689	.000	.689
Innovativeness . . . . .	.78	.02	.608	.000	.608
Communicating expectations . . . . .	.79	.38	.624	.144	.768
Fairness . . . . .	.93	-.24	.865	.058	.923
Maintaining staff morale . . . . .	.92	-.16	.846	.026	.872
Sense of humor . . . . .	.89	-.24	.792	.058	.850
Decision-making ability . . . . .	.93	.17	.865	.029	.894
Evaluating ability . . . . .	.95	.11	.903	.012	.915
Managerial skill . . . . .	.90	.23	.810	.053	.863
Awareness . . . . .	.94	-.14	.884	.020	.904
Self control . . . . .	.81	-.32	.656	.102	.758
Leadership skill . . . . .	.97	.05	.941	.003	.944
Appearance . . . . .	.25	.78	.063	.608	.671
Total			17.305	1.571	
Average			.752	.068	.820

N groups = 37 (35 teacher, 1 service personnel, 1 other)

N principals = 34

N raters = 1055

APPENDIX I

INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE HIGH SCHOOL PRINCIPALS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Verbal fluency	*100	55	53	67	67	52	64	68	53	48	67	57	71	46	58	54	72	67	68	50	54	63	44
2 Consideration of others		100	61	72	65	74	80	82	83	85	67	64	59	78	75	73	69	74	70	70	77	69	59
3 Attitude toward his job			100	75	86	68	66	73	64	63	57	54	68	62	73	69	76	70	67	66	55	71	50
4 Technical competence				100	84	79	76	84	72	65	71	59	76	68	79	72	87	80	85	76	60	78	51
5 Achievement drive					100	78	72	79	67	66	69	63	82	67	80	72	88	81	81	76	55	78	58
6 Supportiveness						100	72	82	76	69	65	58	76	84	81	72	79	81	78	78	61	62	65
7 Flexibility							100	88	88	82	76	83	71	68	78	80	78	81	73	76	75	73	46
8 Performance under stress								100	83	76	72	72	80	78	77	74	87	85	84	76	82	73	57
9 Openness									100	84	73	75	64	74	78	76	69	73	70	74	67	70	47
10 Encouragement of participation										100	69	76	49	72	72	81	67	76	65	73	69	69	48
11 Ability to delegate											100	61	66	57	75	66	64	71	71	69	54	75	40
12 Innovativeness												100	52	63	58	73	67	73	56	59	60	54	47
13 Communicating expectations													100	65	77	73	82	77	85	72	58	71	53
14 Fairness														100	69	67	72	81	74	65	75	51	71
15 Maintaining staff morale															100	79	79	77	80	85	58	80	45
16 Sense of humor																100	74	76	63	77	56	67	49
17 Decision-making ability																	100	87	86	77	67	78	52
18 Evaluating ability																		100	80	83	75	70	65
19 Managerial skill																			100	70	68	73	56
20 Awareness																				100	57	78	43
21 Self control																					100	57	58
22 Leadership skill																						100	36
23 Appearance																							100

N groups = 78 N raters = 2531 N principals = 69

*Decimal points omitted

APPENDIX J

FACTOR LOADINGS AND FACTOR LOADINGS SQUARED
FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
HIGH SCHOOL PRINCIPALS

Questionnaire Item	Factor Loading		Factor Loading Squared		
	I	II	I	II	Total h^2
Verbal fluency . . . . .	.72	.29	.518	.084	.602
Consideration of others . . . . .	.86	-.30	.740	.090	.830
Attitude toward his job . . . . .	.80	.19	.640	.036	.676
Technical competence . . . . .	.89	.23	.792	.053	.845
Achievement drive . . . . .	.89	.29	.792	.084	.876
Supportiveness . . . . .	.87	-.01	.757	.000	.757
Flexibility . . . . .	.90	-.17	.810	.029	.839
Performance under stress . . . . .	.94	-.04	.884	.002	.886
Openness . . . . .	.87	-.25	.757	.063	.820
Encouragement of participation . . . . .	.84	-.38	.706	.144	.850
Ability to delegate . . . . .	.80	.07	.640	.005	.645
Innovativeness . . . . .	.77	-.31	.593	.096	.689
Communicating expectations . . . . .	.83	.38	.689	.144	.833
Fairness . . . . .	.83	-.26	.689	.068	.757
Maintaining staff morale . . . . .	.89	.12	.792	.014	.806
Sense of humor . . . . .	.84	-.18	.706	.032	.738
Decision-making ability . . . . .	.91	.21	.828	.044	.872
Evaluating ability . . . . .	.92	-.02	.846	.000	.846
Managerial skill . . . . .	.88	.22	.774	.048	.822
Awareness . . . . .	.86	.07	.740	.005	.745
Self control . . . . .	.77	-.29	.593	.084	.677
Leadership skill . . . . .	.83	.24	.689	.058	.747
Appearance . . . . .	.63	-.17	.397	.029	.426
Total			16.372	1.212	
Average			.712	.053	.765

N groups = 89 (70 teacher, 9 administrator, 8 service personnel,
2 board member)

N principals = 68

N raters = 1504

APPENDIX K

INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
ASSISTANT SUPERINTENDENTS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Verbal fluency	*100	60	62	84	76	49	75	61	60	62	46	64	56	66	39	69	71	64	66	45	65	60	57
2 Consideration of others		100	58	44	55	66	81	81	87	61	48	49	57	83	68	57	47	38	55	60	86	65	23
3 Attitude toward his job			100	77	90	76	68	61	66	70	46	62	50	64	56	69	79	48	77	59	64	63	51
4 Technical competence				100	89	57	64	57	45	52	38	68	48	55	38	68	82	65	76	43	53	54	57
5 Achievement drive					100	75	74	67	62	72	54	76	68	65	60	71	89	63	88	58	62	75	58
6 Supportiveness						100	75	80	77	83	78	66	76	76	87	66	80	69	89	81	70	72	56
7 Flexibility							100	81	79	77	67	78	70	74	67	69	67	62	72	75	80	72	37
8 Performance under stress								100	69	59	52	55	80	78	84	55	70	58	81	69	83	77	57
9 Openness									100	83	74	62	61	85	68	65	60	55	61	65	78	62	28
10 Encouragement of participation										100	86	74	69	77	68	76	70	69	74	73	64	65	47
11 Ability to delegate											100	75	69	58	72	63	62	70	67	66	46	62	28
12 Innovativeness												100	65	53	60	72	73	77	72	55	49	67	29
13 Communicating expectations													100	72	86	60	68	73	85	75	54	85	53
14 Fairness														100	71	67	67	62	74	69	79	66	49
15 Maintaining staff morale															100	57	65	60	82	69	61	83	44
16 Sense of humor																100	70	62	68	61	52	56	42
17 Decision-making ability																	100	76	90	56	65	73	73
18 Evaluating ability																		100	77	59	46	57	58
19 Managerial skill																			100	69	60	80	71
20 Awareness																				100	53	69	40
21 Self control																					100	60	45
22 Leadership skill																						100	50
23 Appearance																							100

N groups = 22 N raters = 267 N assistant superintendents = 20

*Decimal points omitted

APPENDIX L

FACTOR LOADINGS AND FACTOR LOADINGS SQUARED
FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
ASSISTANT SUPERINTENDENTS

Questionnaire Item	Factor Loading		Factor Loading Squared		
	I	II	I	II	Total h ²
Verbal fluency . . . . .	.77	-.31	.593	.096	.689
Consideration of others . . . . .	.76	.45	.578	.203	.781
Attitude toward his job . . . . .	.81	-.21	.656	.044	.700
Technical competence . . . . .	.75	-.55	.563	.303	.866
Achievement drive . . . . .	.88	-.34	.774	.116	.890
Supportiveness . . . . .	.91	.12	.828	.014	.842
Flexibility . . . . .	.89	.16	.792	.026	.818
Performance under stress . . . . .	.86	.18	.740	.032	.772
Openness . . . . .	.83	.37	.689	.137	.826
Encouragement of participation . . . . .	.87	.11	.757	.012	.769
Ability to delegate . . . . .	.76	.21	.578	.044	.622
Innovativeness . . . . .	.80	-.13	.640	.017	.657
Communicating expectations . . . . .	.84	.12	.706	.014	.720
Fairness . . . . .	.86	.22	.740	.048	.788
Maintaining staff morale . . . . .	.86	.30	.740	.090	.830
Sense of humor . . . . .	.80	-.12	.640	.014	.654
Decision-making ability . . . . .	.88	-.36	.774	.130	.904
Evaluating ability . . . . .	.78	-.22	.608	.048	.656
Managerial skill . . . . .	.92	-.20	.846	.040	.886
Awareness . . . . .	.78	.24	.608	.058	.666
Self control . . . . .	.78	.22	.608	.048	.656
Leadership skill . . . . .	.84	.07	.706	.055	.711
Appearance . . . . .	.61	-.45	.372	.203	.575
Total			15.536	1.742	
Average			.675	.076	.751

N groups = 21 (2 teacher, 18 administrator, 1 other)

N assistant superintendents = 20

N raters = 267

APPENDIX M

INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE SUPERINTENDENTS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Verbal fluency	*100	39	52	58	70	49	45	59	47	37	31	31	49	37	28	28	70	42	43	37	51	54	26
2 Consideration of others		100	51	71	47	84	76	80	87	80	60	44	67	83	85	71	76	79	74	79	77	79	44
3 Attitude toward his job			100	77	81	62	55	68	54	65	55	47	67	62	58	37	77	72	73	56	55	77	43
4 Technical competence				100	79	83	75	80	75	67	61	50	80	72	71	52	87	81	85	70	68	87	30
5 Achievement drive					100	68	63	71	62	64	71	51	76	60	60	37	85	75	83	56	61	82	13
6 Supportiveness						100	73	80	79	73	68	42	79	79	80	62	86	82	84	81	78	88	26
7 Flexibility							100	85	90	76	74	70	72	80	68	67	75	83	76	68	81	75	25
8 Performance under stress								100	87	75	58	47	73	77	71	70	88	78	77	74	92	82	35
9 Openness									100	85	77	65	68	86	79	75	81	83	76	80	82	79	29
10 Encouragement of participation										100	79	66	64	80	80	70	76	85	75	76	67	80	41
11 Ability to delegate											100	67	63	75	67	58	67	83	78	58	56	72	10
12 Innovativeness												100	38	53	47	38	48	65	51	47	43	57	19
13 Communicating expectations													100	72	82	36	77	82	84	75	62	87	23
14 Fairness														100	79	64	77	87	80	75	75	75	29
15 Maintaining staff morale															100	48	72	83	85	87	61	87	34
16 Sense of humor																100	61	56	45	47	72	53	28
17 Decision-making ability																	100	83	85	76	80	91	34
18 Evaluating ability																		100	88	80	69	89	26
19 Managerial skill																			100	77	67	89	16
20 Awareness																				100	67	80	33
21 Self control																					100	72	35
22 Leadership skill																						100	33
23 Appearance																							100

N groups = 33 N raters = 878 N superintendents = 21

*Decimal points omitted

APPENDIX N

FACTOR LOADINGS AND FACTOR LOADINGS SQUARED
FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
SUPERINTENDENTS

Questionnaire Item	Factor Loading		Factor Loading Squared		
	I	II	I	II	Total h ²
Verbal fluency . . . . .	.56	.48	.314	.230	.544
Consideration of others . . . . .	.87	-.33	.757	.109	.866
Attitude toward his job . . . . .	.76	.39	.578	.152	.730
Technical competence . . . . .	.88	.24	.774	.058	.832
Achievement drive . . . . .	.81	.51	.656	.260	.916
Supportiveness . . . . .	.90	.00	.810	.000	.810
Flexibility . . . . .	.88	-.18	.774	.032	.806
Performance under stress . . . . .	.91	-.03	.828	.001	.829
Openness . . . . .	.92	-.27	.846	.073	.919
Encouragement of participation . . . . .	.88	-.23	.774	.053	.827
Ability to delegate . . . . .	.80	-.08	.640	.006	.646
Innovativeness . . . . .	.62	-.11	.384	.012	.396
Communicating expectations . . . . .	.84	.26	.706	.068	.774
Fairness . . . . .	.88	-.19	.774	.036	.810
Maintaining staff morale . . . . .	.86	-.11	.740	.012	.752
Sense of humor . . . . .	.67	-.48	.449	.230	.679
Decision-making ability . . . . .	.93	.20	.865	.040	.905
Evaluating ability . . . . .	.93	.00	.865	.000	.865
Managerial skill . . . . .	.91	.18	.828	.032	.860
Awareness . . . . .	.84	-.10	.706	.010	.716
Self control . . . . .	.83	-.16	.689	.026	.715
Leadership skill . . . . .	.94	.17	.884	.029	.913
Appearance . . . . .	.36	-.16	.130	.026	.156
Total			15.771	1.495	
Average			.686	.065	.751

N groups = 33 (20 teacher, 10 administrator, 3 board member, 1 other)

N superintendents = 21

N raters = 878

APPENDIX O

INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE TEACHER EVALUATOR GROUPS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Verbal fluency	*100	56	58	65	66	54	61	65	53	48	56	52	69	52	52	55	73	66	67	50	53	59	47
2 Consideration of others		100	67	69	64	81	83	83	87	87	69	61	64	86	82	79	72	75	73	78	82	76	50
3 Attitude toward his job			100	75	87	70	68	75	63	66	66	60	70	67	71	67	76	62	75	64	63	74	48
4 Technical competence				100	82	75	72	79	66	62	70	57	72	66	69	65	85	80	84	70	64	75	52
5 Achievement drive					100	75	72	80	64	65	70	63	80	66	73	65	87	82	87	69	61	79	50
6 Supportiveness						100	78	82	78	77	70	60	74	82	84	75	79	79	80	79	68	73	52
7 Flexibility							100	88	87	84	75	78	69	78	80	83	79	81	76	77	79	77	45
8 Performance under stress								100	81	79	74	68	78	82	80	76	86	85	85	77	86	81	53
9 Openness									100	86	72	66	64	83	80	78	69	75	71	79	77	76	42
10 Encouragement of participation										100	72	69	58	82	79	82	69	74	70	76	78	82	42
11 Ability to delegate											100	61	66	69	73	68	69	77	76	72	65	76	45
12 Innovativeness												100	50	63	55	66	66	72	61	56	61	54	46
13 Communicating expectations													100	67	74	59	80	78	85	70	61	77	49
14 Fairness														100	80	74	71	78	73	75	82	68	55
15 Maintaining staff morale															100	81	77	77	80	85	70	84	42
16 Sense of humor																100	74	75	68	74	68	73	43
17 Decision-making ability																	100	88	89	73	70	82	54
18 Evaluating ability																		100	89	79	76	81	58
19 Managerial skill																			100	77	72	82	55
20 Awareness																				100	68	81	39
21 Self control																					100	71	50
22 Leadership skill																						100	38
23 Appearance																							100

*Decimal points omitted

APPENDIX P

FACTOR LOADINGS AND FACTOR LOADINGS SQUARED
FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
TEACHER EVALUATOR GROUPS

Questionnaire Item	Factor Loading		Factor Loading Squared		
	I	II	I	II	Total h ²
Verbal fluency . . . . .	.70	-.38	.490	.144	.634
Consideration of others . . . . .	.89	.29	.792	.084	.876
Attitude toward his job . . . . .	.82	-.21	.672	.044	.716
Technical competence . . . . .	.85	-.28	.723	.078	.801
Achievement drive . . . . .	.86	-.35	.740	.123	.863
Supportiveness . . . . .	.89	.06	.792	.044	.796
Flexibility . . . . .	.91	.19	.828	.036	.864
Performance under stress . . . . .	.94	.01	.884	.000	.884
Openness . . . . .	.87	.33	.757	.109	.866
Encouragement of participation . . . . .	.86	.37	.740	.137	.877
Ability to delegate . . . . .	.83	.01	.689	.000	.689
Innovativeness . . . . .	.74	.09	.548	.008	.556
Communicating expectations . . . . .	.83	-.33	.689	.109	.798
Fairness . . . . .	.87	.24	.757	.058	.815
Maintaining staff morale . . . . .	.89	.14	.792	.020	.812
Sense of humor . . . . .	.85	.24	.723	.058	.781
Decision-making ability . . . . .	.91	-.26	.828	.068	.896
Evaluating ability . . . . .	.92	-.12	.846	.014	.860
Managerial skill . . . . .	.91	-.24	.828	.058	.886
Awareness . . . . .	.86	.15	.740	.023	.763
Self control . . . . .	.84	.21	.706	.044	.750
Leadership skill . . . . .	.88	-.05	.774	.003	.777
Appearance . . . . .	.58	-.25	.336	.063	.399
Total			16.674	1.285	
Average			.725	.056	.781

N groups = 223
N raters = 6155

APPENDIX Q

INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE ADMINISTRATOR EVALUATOR GROUPS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Verbal fluency	*100	53	52	65	62	45	56	61	57	49	52	53	53	42	38	44	51	46	52	44	46	64	40
2 Consideration of others		100	58	46	51	70	77	74	82	66	53	42	60	80	68	56	39	47	56	61	81	68	34
3 Attitude toward his job			100	65	89	70	65	67	62	70	53	65	60	55	60	52	74	57	66	60	59	79	58
4 Technical competence				100	73	59	64	71	55	53	57	62	66	46	45	46	78	62	78	43	50	73	33
5 Achievement drive					100	74	71	69	62	72	62	76	73	53	63	57	82	64	76	61	49	82	56
6 Supportiveness						100	77	78	80	80	74	61	79	76	86	70	71	67	84	77	67	81	52
7 Flexibility							100	83	79	77	76	73	80	67	71	69	62	69	75	71	73	82	37
8 Performance under stress								100	69	64	62	59	77	66	72	55	71	65	80	60	76	82	52
9 Openness									100	81	75	60	69	75	73	64	51	57	69	67	66	73	31
10 Encouragement of participation										100	82	64	78	71	72	63	57	64	72	70	55	80	42
11 Ability to delegate											100	74	76	54	69	61	60	71	73	68	46	73	29
12 Innovativeness												100	65	44	57	59	67	71	67	55	43	68	33
13 Communicating expectations													100	72	80	60	64	79	84	73	55	82	45
14 Fairness														100	74	60	47	60	69	64	70	66	47
15 Maintaining staff morale															100	66	60	65	79	76	56	75	43
16 Sense of humor																100	60	56	61	69	52	68	38
17 Decision-making ability																	100	70	79	56	55	81	55
18 Evaluating ability																		100	79	70	56	76	50
19 Managerial skill																			100	66	55	82	51
20 Awareness																				100	59	78	51
21 Self control																					100	70	54
22 Leadership skill																						100	59
23 Appearance																							100

*Decimal points omitted

APPENDIX R

FACTOR LOADINGS AND FACTOR LOADINGS SQUARED
FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
ADMINISTRATOR EVALUATOR GROUPS

Questionnaire Item	Factor Loading		Factor Loading Squared		
	I	II	I	II	Total h^2
Verbal fluency . . . . .	.65	-.21	.423	.044	.467
Consideration of others . . . . .	.76	.48	.578	.230	.808
Attitude toward his job . . . . .	.80	-.24	.640	.058	.698
Technical competence . . . . .	.75	-.42	.563	.176	.739
Achievement drive . . . . .	.85	-.36	.723	.130	.853
Supportiveness . . . . .	.91	.14	.828	.020	.848
Flexibility . . . . .	.89	.12	.792	.014	.806
Performance under stress . . . . .	.86	.01	.740	.000	.740
Openness . . . . .	.84	.31	.706	.096	.802
Encouragement of participation . . . . .	.85	.14	.723	.020	.743
Ability to delegate . . . . .	.81	.01	.656	.000	.656
Innovativeness . . . . .	.76	-.29	.578	.084	.662
Communicating expectations . . . . .	.88	.01	.774	.000	.774
Fairness . . . . .	.79	.40	.624	.160	.784
Maintaining staff morale . . . . .	.84	.24	.706	.058	.764
Sense of humor . . . . .	.75	.12	.563	.014	.577
Decision-making ability . . . . .	.80	-.44	.640	.194	.834
Evaluating ability . . . . .	.81	-.16	.656	.026	.682
Managerial skill . . . . .	.89	-.15	.792	.023	.815
Awareness . . . . .	.81	.18	.656	.032	.688
Self control . . . . .	.75	.27	.563	.073	.636
Leadership skill . . . . .	.94	-.10	.884	.010	.894
Appearance . . . . .	.57	-.17	.325	.029	.354
Total			15.133	1.491	
Average			.658	.065	.723

N groups = 55

N raters = 560

APPENDIX S

INTERCORRELATION MATRIX FOR ADMINISTRATOR IMAGE QUESTIONNAIRE SERVICE PERSONNEL EVALUATOR GROUPS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Verbal fluency	*100	72	70	72	80	59	72	79	84	78	89	91	85	77	83	86	93	89	84	78	82	78	72
2 Consideration of others		100	82	72	80	67	72	82	69	86	53	72	86	67	86	89	81	86	82	62	85	77	76
3 Attitude toward his job			100	93	93	80	87	84	75	88	65	80	93	84	93	76	84	77	90	72	80	85	71
4 Technical competence				100	94	90	97	85	82	85	76	77	88	83	94	68	80	85	89	74	76	87	62
5 Achievement drive					100	79	92	89	85	87	76	80	94	80	93	79	87	93	86	70	82	81	69
6 Supportiveness						100	93	79	81	82	68	65	76	77	89	54	66	75	87	67	58	90	62
7 Flexibility							100	89	86	84	78	74	84	84	94	69	80	87	88	76	74	88	63
8 Performance under stress								100	81	83	71	78	89	79	89	87	90	87	80	71	85	89	79
9 Openness									100	89	92	80	79	80	89	69	82	84	87	78	71	83	59
10 Encouragement of participation										100	74	87	85	82	93	77	84	85	92	79	86	86	65
11 Ability to delegate											100	79	73	80	80	66	82	78	81	81	64	77	52
12 Innovativeness												100	84	83	86	79	92	87	87	83	88	80	70
13 Communicating expectations													100	76	92	86	91	94	89	65	82	87	87
14 Fairness														100	91	77	82	82	90	96	75	85	55
15 Maintaining staff morale															100	83	88	93	98	84	84	93	71
16 Sense of humor																100	90	85	78	75	88	78	76
17 Decision-making ability																	100	91	85	79	89	85	81
18 Evaluating ability																		100	91	75	83	81	77
19 Managerial skill																			100	85	78	91	70
20 Awareness																				100	78	78	41
21 Self control																					100	74	63
22 Leadership skill																						100	79
23 Appearance																							100

*Decimal points omitted

APPENDIX T

FACTOR LOADINGS AND FACTOR LOADINGS SQUARED
FOR ADMINISTRATOR IMAGE QUESTIONNAIRE
SERVICE PERSONNEL EVALUATOR GROUPS

Questionnaire Item	Factor Loading		Factor Loading Squared		
	I	II	I	II	Total h^2
Verbal fluency . . . . .	.89	-.15	.792	.023	.815
Consideration of others . . . . .	.86	-.33	.740	.109	.849
Attitude toward his job . . . . .	.92	.00	.846	.000	.846
Technical competence . . . . .	.92	.23	.846	.053	.899
Achievement drive . . . . .	.94	.02	.884	.000	.884
Supportiveness . . . . .	.84	.35	.706	.123	.829
Flexibility . . . . .	.92	.25	.846	.063	.909
Performance under stress . . . . .	.93	-.11	.865	.012	.877
Openness . . . . .	.90	.23	.810	.053	.863
Encouragement of participation	.93	.53	.865	.281	1.146
Ability to delegate . . . . .	.83	.26	.689	.068	.757
Innovativeness . . . . .	.91	-.09	.828	.008	.836
Communicating expectations . . . . .	.95	-.20	.903	.040	.943
Fairness . . . . .	.90	.23	.810	.053	.863
Maintaining staff morale . . . . .	.99	.09	.980	.008	.988
Sense of humor . . . . .	.87	-.37	.757	.137	.894
Decision-making ability . . . . .	.94	-.20	.884	.040	.924
Evaluating ability . . . . .	.95	-.11	.903	.012	.915
Managerial skill . . . . .	.96	.13	.922	.017	.939
Awareness . . . . .	.84	.25	.706	.063	.769
Self control . . . . .	.88	-.24	.774	.058	.832
Leadership Skill . . . . .	.93	.08	.865	.006	.871
Appearance . . . . .	.77	-.43	.593	.185	.778
Total			18.814	1.412	
Average			.818	.061	.879

N groups = 12

N raters = 88