

## **INFORMATION TO USERS**

**This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.**

**The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.**

- 1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.**
- 2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame.**
- 3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.**
- 4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.**
- 5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.**

**University  
Microfilms  
International**

300 N. ZEEB ROAD, ANN ARBOR, MI 48106  
18 BEDFORD ROW, LONDON WC1R 4EJ, ENGLAND

8020726

OBERLIN, MEGAN HAUPT

**EFFECTS OF LEADERSHIP ON PERCEIVED JOB SATISFACTION AND  
INFLUENCE AMONG INTERMEDIATE SCHOOL DISTRICT SPECIAL  
EDUCATION PERSONNEL IN MICHIGAN**

*Michigan State University*

PH.D.

1980

**University**

**Microfilms**

**International** 300 N. Zeeb Road, Ann Arbor, MI 48106

18 Bedford Row, London WC1R 4EJ, England

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark ☒.

1. Glossy photographs \_\_\_\_\_
2. Colored illustrations \_\_\_\_\_
3. Photographs with dark background \_\_\_\_\_
4. Illustrations are poor copy \_\_\_\_\_
5. Print shows through as there is text on both sides of page \_\_\_\_\_
6. Indistinct, broken or small print on several pages ☒ throughout  
\_\_\_\_\_
7. Tightly bound copy with print lost in spine \_\_\_\_\_
8. Computer printout pages with indistinct print \_\_\_\_\_
9. Page(s) \_\_\_\_\_ lacking when material received, and not available  
from school or author \_\_\_\_\_
10. Page(s) \_\_\_\_\_ seem to be missing in numbering only as text  
follows \_\_\_\_\_
11. Poor carbon copy \_\_\_\_\_
12. Not original copy, several pages with blurred type \_\_\_\_\_
13. Appendix pages are poor copy ☒ \_\_\_\_\_
14. Original copy with light type \_\_\_\_\_
15. Curling and wrinkled pages \_\_\_\_\_
16. Other \_\_\_\_\_

EFFECTS OF LEADERSHIP ON PERCEIVED JOB SATISFACTION  
AND INFLUENCE AMONG INTERMEDIATE SCHOOL DISTRICT  
SPECIAL EDUCATION PERSONNEL IN MICHIGAN

By

Megan Haupt Oberlin

A DISSERTATION

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

DOCTOR OF PHILOSOPHY

Department of Elementary and Special Education

1979

## ABSTRACT

### EFFECTS OF LEADERSHIP ON PERCEIVED JOB SATISFACTION AND INFLUENCE AMONG INTERMEDIATE SCHOOL DISTRICT SPECIAL EDUCATION PERSONNEL IN MICHIGAN

By

Megan Haupt Oberlin

This study examined the effects of leadership and demographic information on perceived job satisfaction and influence in intermediate school district special education staffs in Michigan.

Basically, this study investigated:

1. The relationship between the perceived job satisfaction and perceived influence as moderated by leadership.
2. The possibility of a predictive model for the dependent variables.

The population consisted of special education employees in 49 of the existing 58 intermediate school districts. Survey instruments used were the Leader Behavior Description Questionnaire (LBDQ) demographic questions, the Job Description Index (JDI), and questions on influence taken from the Control Graphs by Tannenbaum. Statistical treatment of Pearson product-moment correlations and multiple regression analyses were used. Results showed positive correlations between variables of leadership, job satisfaction (except satisfaction with pay), and influence. Demographic information did

not correlate significantly with any variables. The leadership variables of Initiation of Structure, Consideration, and Integration provided the most correlations on both the dependent variables. Multiple regression findings suggested a considerate leader who maintains an integrated, closely-knit organization, who resolves conflicts and maintains cordial relations with superiors and has influence with them, will be perceived by workers as exerting influence and contributing to job satisfaction.

## ACKNOWLEDGMENTS

I wish to express my deepest appreciation to my dissertation chairman, Lawrence W. Foster; without his continuous encouragement and support, this dissertation would not have been completed. I also wish to extend my thanks to Charles E. Henley and Charles V. Mange for the opportunity to work with them during my doctoral program, and to Alexander J. Kloster for sticking with me over long distances.

I also thank my husband, Walter, and my children, Melissa and John, for believing I could do it.

Finally, I would like to thank my parents for having stood beside me for four educational degrees.

## TABLE OF CONTENTS

|   | Page |
|---|------|
| LIST OF TABLES . . . . .                                    | vi   |
| <br>Chapter   |      |
| I. INTRODUCTION . . . . .                                   | 1    |
| Background . . . . .  | 1    |
| Need for the Study . . . . .                                | 3    |
| Research Objectives . . . . .                               | 4    |
| Definition of Terms . . . . .                               | 5    |
| Overview . . . . .  | 6    |
| II. REVIEW OF LITERATURE . . . . .                          | 7    |
| Leadership . . . . .  | 7    |
| Introduction . . . . .                                      | 7    |
| Studies of Consideration and Initiating Structure . . . . . | 10   |
| Leadership and Satisfaction . . . . .                       | 12   |
| Other Studies of Leadership . . . . .                       | 13   |
| Conclusion . . . . .  | 16   |
| Job Satisfaction . . . . .                                  | 16   |
| Definitions of Job Satisfaction . . . . .                   | 16   |
| Factors Associated With Job Satisfaction . . . . .          | 19   |
| Other Theories . . . . .                                    | 22   |
| Influence in Organizations . . . . .                        | 24   |
| Introduction . . . . .                                      | 24   |
| Typologies . . . . .  | 25   |
| Perception of Influence . . . . .                           | 31   |
| Influence in Education . . . . .                            | 32   |
| Conclusion . . . . .  | 32   |
| Instruments and Related Research . . . . .                  | 33   |
| Leader Behavior Description Questionnaire (LBDQ) . . . . .  | 33   |
| Related Research on the LBDQ . . . . .                      | 35   |
| The Job Description Index (JDI) . . . . .                   | 35   |
| Related Research on the JDI . . . . .                       | 36   |
| General Influence--The Control Graph . . . . .              | 37   |
| Related Research--Control Graph . . . . .                   | 37   |
| Specific Influence . . . . .                                | 38   |
| Related Research With Demographic Information . . . . .     | 39   |
| Summary of Review of the Literature . . . . .               | 41   |



| Chapter   | Page |
|---|------|
| III. PROCEDURE AND METHODOLOGY . . . . .                    | 42   |
| Introduction . . . . .                                      | 42   |
| Data-Collection Procedure . . . . .                         | 43   |
| Independent Variables and Measures . . . . .                | 45   |
| Dependent Variables and Measures Used . . . . .             | 46   |
| Design of the Data Analysis . . . . .                       | 47   |
| IV. RESULTS AND ANALYSIS . . . . .                          | 50   |
| Description of the Sample . . . . .                         | 50   |
| Demographic Information . . . . .                           | 50   |
| Descriptions of the Scales for Other Variables . . . . .    | 52   |
| Correlation Analyses of the Total Population . . . . .      | 52   |
| Influence and Leadership . . . . .                          | 55   |
| Job Satisfaction and Leadership . . . . .                   | 55   |
| Correlation Analyses of the Three Positions:                |      |
| Director, Supervisor, and Itinerant Staff . . . . .         | 57   |
| Correlation Analysis for Directors . . . . .                | 57   |
| Correlation Analysis for Supervisors . . . . .              | 61   |
| Correlation Analysis for Staff . . . . .                    | 64   |
| Comparison of Directors, Supervisors, and Staff . . . . .   | 66   |
| Multiple Regression Analyses . . . . .                      | 67   |
| Leadership With General Influence . . . . .                 | 67   |
| Leadership With Influence in Curriculum . . . . .           | 69   |
| Leadership With Influence in Selection of                   |      |
| Personnel . . . . .   | 69   |
| Leadership With Influence in Establishing New               |      |
| Programs . . . . .  | 69   |
| Leadership With Influence on Promotions in ISD . . . . .    | 69   |
| Leadership With Influence on Establishing New               |      |
| Policies . . . . .  | 74   |
| Leadership With Satisfaction With the Job . . . . .         | 74   |
| Leadership With Satisfaction With People on                 |      |
| ISD Staff . . . . .   | 74   |
| Leadership With Satisfaction With Supervision . . . . .     | 74   |
| Leadership With Promotional Opportunities . . . . .         | 79   |
| Summary . . . . .   | 79   |
| Analysis of Variance . . . . .                              | 79   |
| General Influence by Position in ISD . . . . .              | 79   |
| Influence in Curriculum by Position in ISD . . . . .        | 81   |
| Influence in Selection of Personnel by Position             |      |
| in ISD . . . . .  | 81   |
| Influence in Establishing New Programs by                   |      |
| Position in ISD . . . . .                                   | 83   |
| Influence on Promotions in ISD by Position in ISD . . . . . | 83   |
| Influence in Establishing New Policies by                   |      |
| Position in ISD . . . . .                                   | 84   |

| Chapter   | Page |
|---|------|
| Satisfaction With Job (Work) by Position<br>in ISD . . . . .                | 84   |
| Satisfaction With ISD Staff by Position . . . . .                           | 86   |
| Satisfaction With Supervision by Position in ISD . . . . .                  | 86   |
| Satisfaction With Pay by Position in ISD . . . . .                          | 87   |
| Satisfaction With Promotional Opportunities by<br>Position in ISD . . . . . | 87   |
| Summary . . . . .   | 89   |
| Additional Analyses . . . . .   | 89   |
| V. DISCUSSION AND CONCLUSIONS . . . . .                                     | 90   |
| Summary . . . . .   | 90   |
| Findings . . . . .  | 91   |
| Correlation of the Variables Main Effects . . . . .                         | 91   |
| Multiple Regression Analyses . . . . .                                      | 93   |
| Correlations by Position of Director, Supervisor,<br>and Staff . . . . .    | 93   |
| One-Way Anovas by Position on the Dependent<br>Variables . . . . .          | 94   |
| Conclusions Related to This Research . . . . .                              | 94   |
| Limitations . . . . .   | 94   |
| Suggestions for Further Research . . . . .                                  | 95   |
| APPENDICES . . . . .  | 98   |
| A. PILOT SURVEY . . . . .   | 99   |
| B. SURVEY . . . . .   | 111  |
| BIBLIOGRAPHY . . . . .  | 120  |

## LIST OF TABLES

| Table   | Page |
|---|------|
| 1. Schema of Research Design of Matrix for Correlations of Dependent and Independent Variables . . . . .  | 49   |
| 2. Summary Characteristics of the Sample . . . . .  | 53   |
| 3. Summary Statistics on Independent and Dependent Variables of Leadership, Influence, and Job Satisfaction . . . . .   | 54   |
| 4. Correlations of Independent and Dependent Variables for the Total Population . . . . .   | 56   |
| 5. Correlations of Demographic Information With Influence and Job Satisfaction Matrix for Director . . . . .  | 58   |
| 6. Correlations of Leadership With Influence and Job Satisfaction Matrix for Director . . . . .   | 59   |
| 7. Correlation of Demographic Information With Influence and Job Satisfaction Matrix for Supervisor . . . . .   | 62   |
| 8. Correlation of Leadership With Influence and Job Satisfaction Matrix for Supervisor . . . . .  | 63   |
| 9. Correlations of Leadership With Influence and Job Satisfaction Matrix for Staff . . . . .  | 65   |
| 10. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>General Influence</u> . . . . .                      | 68   |
| 11. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>Influence in Curriculum</u> . . . . .                | 70   |
| 12. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>Influence in Selection of Personnel</u> . . . . .    | 71   |
| 13. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>Influence in Establishing New Programs</u> . . . . . | 72   |

| Table   | Page |
|---|------|
| 14. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>Influence on Promotion in ISD</u> . . . . .                            | 73   |
| 15. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>Influence on Establishing New Policies</u> . . . . .                   | 75   |
| 16. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>Satisfaction With Job</u> . . . . .                                    | 76   |
| 17. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>Satisfaction With People on ISD Staff--Special Education</u> . . . . . | 77   |
| 18. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>Satisfaction With Supervision</u> . . . . .                            | 78   |
| 19. Summary Results of Regression Analysis of Leadership Variable Used to Predict Dependent Variable of <u>Satisfaction With Promotional Opportunities</u> . . . . .              | 80   |
| 20. One-Way Analysis of Variance: Means for General Influence by Position in ISD . . . . .  | 81   |
| 21. One-Way Analysis of Variance: Means for Influence in Curriculum by Position in ISD . . . . .  | 82   |
| 22. One-Way Analysis of Variance: Means for Influence in Selection of Personnel by Position in ISD . . . . .  | 82   |
| 23. One-Way Analysis of Variance: Means for Influence in Establishing New Programs by Position in ISD . . . . .   | 83   |
| 24. One-Way Analysis of Variance: Means for Influence on Promotion in ISD by Position in ISD . . . . .  | 84   |
| 25. One-Way Analysis of Variance: Means for Influence in Establishing New Policies by Position in ISD . . . . .   | 85   |
| 26. One-Way Analysis of Variance: Means for Satisfaction With Job by Position in ISD . . . . .  | 85   |
| 27. One-Way Analysis of Variance: Means for Satisfaction With ISD Staff by Position . . . . .   | 86   |

| Table   | Page |
|---|------|
| 28. One-Way Analysis of Variance: Means for Satisfaction<br>With Supervision by Position in ISD . . . . .           | 87   |
| 29. One-Way Analysis of Variance: Means for Satisfaction<br>With Pay by Position in ISD . . . . .                   | 88   |
| 30. One-Way Analysis of Variance: Means for Satisfaction<br>With Promotional Opportunities by Position in ISD . . . | 88   |

## CHAPTER I

### INTRODUCTION

#### Background

Organizations have been the focus of research and interest for theorists since Wilbur's first writings on bureaucracy in 1929. For the past two decades, intensive and concentrated attention has been paid to organizational research in the behavioral sciences. Prior research of "classical" theorists Fayol, Urwich, Taylor, and others discussed chain of command, with heavy emphasis placed on factors related to organizational structure. There was a general tendency to view the employee as an inert instrument performing the task assigned (March & Simon, 1958). The classical viewpoint was aptly summed as "organizations without people" (Bennis, 1959, p. 259).

Modern organizational theory developed by Likert, Haire, McGregor, Argyris, and others has recognized the importance of the organizational milieu with particular respect to its input on the organization's members (Porter, Lawler, & Hackman, 1975). Some dimensions within the milieu are psychological, not physical or structural, e.g., members' perceptions of the organization, reactions to the organization, and attitudes toward the organization.

Consider the research literature on supervisory behavior. Traditionally, this research has focused on the effects of various

leader personalities or managerial styles on individual and group performance. Many studies have been done which examine how subordinate satisfaction differs for supervisors who have a "considerate," employee-centered style from those who have a structuring, task-oriented style. Much of the literature reviewed by House and Filley (1968), Vroom (1964), and Likert (1961) indicates a relationship between supervisory consideration and job satisfaction. Consideration is a dimension of leadership defined as one where the leader "regards the comfort, well being, status, and contributions of the follower" (Stogdill, 1963, p. 5). Initiating structure of the leader-manager and job satisfaction are not as clear-cut, though correlational studies tend to indicate they are related (Vroom, 1964). Initiating structure, another dimension of leadership, is defined as one where the leader "clearly defines own role and lets followers know what is expected" (Stogdill, 1963, p. 5). A relationship between leadership and influence may be supposed from the definition which equates leadership with the differential exertion of influence. "Indeed every act of influence on a matter of organizational relevance is in some degree an act of leadership" (Katz & Kahn, 1966, p. 303).

Research focusing on organizational variables in school organizations is meager. According to Bidwell (1965), "To understand what schools are like as organizations we must rely on empirical work, much of which is not explicitly directed toward organizational questions. . . . As a result this empirical literature is fragmentary and discontinuous" (p. 72).

### Need for the Study

The intermediate school district in Michigan is an expanding organization. Increased functions have resulted in a greater responsibility for providing educational services within the state. This increased responsibility is most evident in special education programs and services for the handicapped. With the changes in organizational responsibility and climate, there is a need to examine the intermediate school district as an organization and the special education component as a new, expanding suborganization.

In 1971, Public Act 198 or Mandatory Special Education was passed by the Michigan legislature. This comprehensive law required public school districts to provide programs and services for handicapped children ages 0 to 25. This law and the accompanying rules and regulations have projected the intermediate school district into a powerful position as an intermediary between local school districts and the state board of education and state department of education. The legislation has changed the provisions for services to handicapped children from permissive to mandatory. Many of the positions in special education created by this legislation change are new and did not exist six years ago.

With change, leader behavior and employee job satisfaction with the organization become areas of interest for study. Does leadership style make a difference or have an effect on employee job satisfaction? What, if any, is the relationship between leader behavior and perceived influence? Is it possible to predict job satisfaction of employees by analyzing the leadership style of their superiors?



### Research Objectives

This study is an exploratory correlational-regression investigation of the effects of leadership and demographic information on job satisfaction and influence as perceived by three hierarchical groups of special education personnel in intermediate school districts in Michigan. Special education directors, supervisors, and itinerant staff represent the population for study. Instruments for research include the Leader Behavior Description Questionnaire, demographic information, the Job Description Index, and influence questions based on Tannenbaum's Control Graph.

This study examines the intermediate special education staff as a component of the total intermediate school districts and attempts to add to the knowledge pertaining to the relationship of the variables of influence, job satisfaction, leadership, and demographic information in school organizations. In this research it is hypothesized that member job satisfaction and influence are functions of leadership-management style.

The first research objective is to investigate the relationship of the dependent variables of perceived job satisfaction and perceived influence as affected by the independent variables of perceived leadership and demographic factors or variables among members of special education staffs in intermediate school district organizations. The second objective is to investigate the possibility of a prediction model for the dependent variables. Finally, knowledge of reported perceptions may provide a better picture of what is happening in intermediate school district special education suborganizations.

### Definition of Terms

The following definitions were assumed for this research.

Leadership is defined as the process whereby one person exerts social influence over the members of the group. A leader, then, is a person with power over others, who exercises this power for the purpose of influencing their behavior.

Influence as a function of leadership is defined as any process whereby a person or group of persons or organization determines, that is, intentionally affects, the behavior of another person, group, or organization.

Job satisfaction is defined as the attitude of workers toward the company, their job, their fellow workers, and other psychological objects in the work environment.

Intermediate school districts are defined as those districts organized on a county or multi-county basis as described in Michigan Public Act 190 of 1957.

Intermediate special education director is defined as a person(s) approved and reimbursed in the position as a full-time administrator by the Michigan Department of Education.

Intermediate special education supervisor is defined as a person(s) approved and reimbursed in the position by the Michigan Department of Education.

Intermediate special education staff is defined as approved itinerant staff housed at the intermediate office.

### Overview

The remainder of this thesis is organized in the following manner:

Chapter II is a review of the relevant literature on leadership, job satisfaction, influence, demographic information, and the instruments used.

Chapter III contains the population, data collection, methodology of the study, and the schema for the correlations of the variables of interest.

Chapter IV presents the results of the analyses of the relationships between the variables of leadership, demographic information, job satisfaction, and influence.

Chapter V is a summary of the results of the study, conclusions reached, and implications for further study.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### Leadership

##### Introduction

Leadership is one of the most researched and perhaps least understood variables in organizational research. Studies of leadership in organizations are confusing, if not chaotic.

Not much smaller than the bibliography on leadership is the diversity of views on the topic. Many of the studies essentially ask: What do people mean when they speak of a leader? Other studies begin with a conceptual or empirical definition of leadership and then proceed to determine correlates or consequences of leadership so defined. Even a cursory review of these investigations shows that leadership means many different things to different people (Janda, 1960, p. 345).

A simple definition proposed by Stogdill (1974) indicates a leader is the person whose behavior exercises a determining effect on the behavior of group members. Bowers and Seashore (1966) identified certain common-sense attributes of leadership. First, the concept of leadership is meaningful only in the context of two or more people. Second, leadership consists of behavior: behavior by one member of the group toward other members of the group which advances some joint aim. These definitions are simplistic and may not give insight into the process and studies of leadership. They do provide a basic conceptualization of leadership.

Early research studies in leadership are predominantly of the personal traits or individual-centered variety. Leaders are defined as persons holding an office. Trait theory asserted there is a finite number of identifiable characteristics or traits of successful and effective leaders. These traits differentiate the successful from the unsuccessful leaders (Filley & House, 1969). Stogdill (1974) reviewed the literature with respect to these studies. Personal factors were classified under five general headings: (1) capacity (intelligence, alertness, judgment); (2) achievement (scholarship, knowledge, athletic accomplishments); (3) responsibility (dependability, initiative, persistence, aggressiveness); (4) participation (activity, sociability, cooperation, adaptability; (5) status (socioeconomic status, popularity). Only traits of intelligence, scholarship, dependability, responsibility, social participation, and socioeconomic status consistently differentiated leaders from non-leaders.

Trait theory research to this point ignored the situation in which leadership takes place. Ghiselli (1963) correlated traits of leadership with management performance ratings and organizational levels. The leadership traits that correlated were intelligence, supervisory ability, initiative, self-assurance, and individuality. This research gives more dynamic and replicable results than previous trait research.

The behavioral approach to the study of leadership characterizes leaders by behavior patterns rather than inherent or individual traits. The behavioral "theory" began with Kurt Lewin of the Group Dynamics Center at M.I.T. Four styles of leadership behavior have

emerged from the research: autocratic, supportive, instrumental, and great man. Filley and House (1969) stated that the autocratic leader commands and enforces by his power to reward and punish, and his decisions are most often arbitrary. The supportive leader is democratic, employee oriented, and considerate of employees (Argyle, 1957). The instrumental leader is effective, active, task oriented, and he may be autocratic or supportive (Bass & Duntzman, 1963). The great man is an effective leader who is both supportive and instrumental (Moore & Smith, 1952; Bales, Strodbach, Mills, & Roseborough, 1951).

The study of leadership has become increasingly interesting when viewed as an interaction process between the leader, the group, and individual group members. In other words, the leader influences his followers in the interaction process and the group's reactions have an impact on leader behavior.

In an experiment demonstrating that satisfaction of group members with the leadership they receive is affected to a large extent by attributes of the person providing the leadership, Bell and French (1950) have shown it is possible to predict with some accuracy the attitudes of members of a group toward the quality of individual leadership ability. In their experiment each subject participated in six discussion groups. In each group his fellow participants were four different students with whom he was unacquainted. At the end of the discussion session, the five group members were asked individually to rank other group members on their ability to lead the discussion for an expected next meeting. The rankings for a given person by the other four members were averaged and correlated with the leadership

rankings that the same person received in the other five groups. The correlation coefficients between leadership rankings in different groups ranged from .03 to .96, with a mean of .75.

The attempt by several Ohio State University psychologists to find a few general behavior dimensions which apply to all types of leaders is significant. Hemphill and Coon (1957) and Halpin and Winer (1957) performed factor analyses of leadership behavior and produced two orthogonal factors. The factors are consideration and initiating structure. "Consideration is the degree to which a leader acts in a warm and supportive manner and shows concern and respect for his subordinates. Initiating structure refers to the degree to which a leader defines and structures his own role and those of his subordinates toward goal attainment" (Yukl, 1971, p. 414). Many years of experimentation and manipulation of the factors of consideration and initiating structure have found them positively related to various measures of group cohesiveness and harmony. Initiating structure is related to group cohesiveness, whereas consideration is related to low absenteeism, turnover, bureaucracy, and satisfaction.

It would appear the significance of consideration and structure is to be explained, not in terms of leadership, but in terms of followership. The two behavior patterns emerge as important but not because they are exhibited by the leader, but because they produce different effects on the behavior expectations of followers (Stogdill, 1974, p. 147).

#### Studies of Consideration and Initiating Structure

Hemphill (1955), using the Leader Behavior Description Questionnaire (LBDQ) to study the leadership of academic department heads

in a university, reported consideration and administrative competence correlated at .36 and initiating structure and administrative competence correlated at .48. Hills (1963), in a study of school principal behavior, reported consideration and structure are highly correlated with two representative functions: (1) representing the interests of teachers to higher levels of the organization and (2) representing teachers' interests to the school clientele. Additionally in this study, consideration and initiating structure are not only concerned with internal leadership but reflect the manner in which the leader deals with outsiders and higher levels of authority. Another educational study using principals as respondents to describe the leader behavior of superintendents and assistant superintendents found that those principals who describe their superiors as high in consideration but not high in structure perceive themselves as exercising high degrees of responsibility, authority, and as delegating extensively. In a study of the staff position of director of instruction, Luckie (1963) surveyed 434 superintendents, directors of instruction, and teachers for descriptions of 53 directors of instruction. Using the ideal model as portrayed by the LBDQ, directors are reported as lower in consideration and structure than all groups would consider ideal. An experiment by Bailey (1966) using four principals and four teachers described as higher in consideration and four other principals described as higher in structure involved a decision-making game. Neither principals' consideration nor structure scores were significantly related to the group's decision. However, principal consideration is significantly related to the teachers' satisfaction with the decision and



their support of it. Flocco (1969), in a study of 1,200 school business managers, reported consideration and initiating structure are unrelated to personality test scores or dogmatism.

In studies of consideration, structure, and school size, Hunter (1959) stated teachers and board members describe superintendents of large schools higher in consideration and initiating structure than those in small schools. Charters (1964) indicated size of school was unrelated to teachers' description of leader behavior; however, administrators rated superintendents of large schools higher in consideration and initiating structure than those in small schools.

House, Filley, and Kerr (1970), in a study of three companies as a test of the Fleischman and Harris (1962) hypothesis, discovered that structure acts as a mediator of the relationship between consideration and job satisfaction. Structure related positively and significantly with satisfaction with company and freedom of action in all three organizations. Although data did not support the mediating hypothesis, structure was positively rather than negatively related to employee satisfaction. Stogdill (1965) also found in a study of 27 organizations that leader structure is related to follower satisfaction with the organization, whereas consideration is associated with satisfaction and freedom of action.

#### Leadership and Satisfaction

Mann (1965), in a study of community hospitals involving three employee groups and a trilogy of leadership skills, found the satisfaction of nurses is related to human relations skills of supervisors.

Satisfaction of supervisor is related to administrative skills of their superiors. In studies of two firms using consideration and initiating structure as leadership variables, House, Filley, and Gujarti (1971) reported conflicting results. Both leader consideration and initiating structure acted as moderators of employee satisfaction with freedom on the job, job security, and family attitudes in one firm but not the other. Nahabetian (1969) stated group members are better satisfied with leaders who rate high in influence rather than those low in influence with superiors. Yukl (1971) stated that in five studies using the leadership dimension of consideration and subordinate satisfaction, a strong positive relationship is present between these two factors. In an experiment Lowen, Hrapchak, and Kavanagh (1969) found a significant positive relation between subordinate satisfaction and their ratings of leader consideration.

#### Other Studies of Leadership

Heller and Yukl (1969) defined another leader behavior dimension encompassing leader behavior procedures and group participation, which they call decision-centralization. This is an average of the degree of participation the leader allows into any set of typical decisions. This dimension emphasizes the behavior of the leader rather than behavior of subordinates. Yukl (1971) maintained decision-centralization is independent or oblique from consideration and initiating structure. In a study of 67 second-line supervisors in three companies, results showed a low significant correlation of  $r = .24, p < .05$  between consideration and decision-centralization.

No significant correlation was present between decision-centralization and initiating structure. The instrument used was the Decision Procedure Questionnaire (Form C) described in Heller and Yukl (1969). Yukl further developed his premises into a multiple-linkage model of leader effectiveness. The central feature of the model is a set of intermediate variables such as subordinate task motivation, subordinate task skills, and task-role organization for the group. A leader can do little to improve group productivity unless he alters one or more of these variables.

In the research on the relationship between organizational performance and leader attitudes, Fiedler (1971) and associates sought to determine whether the leader who is very lenient in evaluating his associates is more or less likely to lead an effective, high-producing group than the leader who is highly demanding or discriminating in evaluating his associates. Two perception factors were considered. One, "assumed similarity between opposites" (ASO), measures the degree to which a leader is perceived as very similar to his most and least preferred co-workers. A perception of close similarity suggests the leader is not discriminating in his preferences about co-workers. The second factor is the "least preferred co-worker" (LPC). This measures the degree to which the leader sees the poor co-worker in a favorable manner. LPC is a measure of leniency or tolerance or an inverse measure of the degree to which he discriminates in evaluating others. The ASO and LPC scores are highly correlated and so are used interchangeably. Groups are described as interacting (members work cooperatively and interdependently on a task) or coacting

(members perform their tasks in relative independence from one another). The variable that moderates the relationship between LPC and group performance is situational favoritism. This is defined as the degree to which the situation itself provides the leader with potential power and influence over the group's behavior. Situational factors include leader-member relations, task structures, and position power. These rating scales were described by Fiedler (1967). Group situations are classified on these three dimensions. The resultant classification system is an eight-sided cube. Each octant could be scaled in learning how much power and influence a leader might have in a situation.

Meuwese and Fiedler (1965), in a study using the LBDQ, reported leaders who are high and low on the LPC measures tend to differ significantly on specific items of the LBDQ but not in total scores for consideration and structure. Graham (1968) found high-LPC leaders were described as being higher in consideration and structure than low-LPC leaders. Yukl (1968), in a study of leader personality and situational variables as determinants in leader behavior, found task-oriented leaders tend to be described as high in structure and low in consideration. Fiedler analyzed earlier studies in which ASO and LPC were developed and added the situational factors. New laboratory and field studies were conducted to validate the model. Shima (1968) tested the contingency model in Japan using students and two of Guilford's tests: the Unusual Uses test, considered to be moderately structured, and an integration task requiring groups to invent a story using ten unrelated words. All leaders were elected by the group members. The corresponding correlates were  $-.26$  ( $n = 16$ ) and  $.71$  ( $n = 16$ ),

$p < .05$ , thus supporting the model. In the analyses and reanalyses studies, Fiedler found a discriminating leader attitude was associated with high group performance when the situation was highly favorable or unfavorable. A lenient, considerate leader attitude was associated with high group performance when the situation was moderately favorable or unfavorable. Under a very unfavorable condition, however, the group would fall apart unless the leader's active intervention and control could keep the members on the job.

### Conclusion

Research on dimensions of leadership has progressed from encompassing theories to empirical experimentation. Leadership involves the leader, his personality and behavior, the group members' behavior and interactions of the leader, the tasks and goals to be accomplished, and the situations or context within which the leader, group, and task are operating. This was best stated by Hollander and Julin (1969):

One overriding impression conveyed by surveying the literature of the 1960's, in contrast to the preceding two decades, is the reduction of interest in leadership toward processes such as power and authority relationship. . . . The tendency is to attach far greater significance to the interrelationship between the leader, the followers and the situation. . . . In consequence, the problem of studying leadership and understanding these relationships is recognized as more formidable than was earlier supposed (p. 395).

### Job Satisfaction

#### Definitions of Job Satisfaction

Since Hoppock's monograph on job satisfaction in 1935, a substantial amount of research has been conducted on this topic.

Variables such as job satisfaction, employee attitudes, and morale acquired an important place in the literature of industrial, vocational, and social psychology. The terms job satisfaction and job attitudes were typically used interchangeably. Both refer to affective orientations on the part of individuals toward work roles which they were presently occupying. Beer (1964) defined job satisfaction as the attitude of workers toward the company, their job, their fellow workers, and other psychological objects in the work environment.

The term "morale" has been given a variety of meanings, some of which correspond quite closely to the concepts of attitude and satisfaction. For example, Likert and Willits (1940) defined job morale as an individual's "mental attitude toward all features of his work and toward all of the people with whom he works" (p. 27). Similarly, Guion (1958) defined morale as "the extent to which the individual's needs are satisfied and the extent to which the individual perceives that satisfaction as stemming from his total job situation" (p. 62).

Job satisfaction and motivation seem to represent two different constructs and may be only tangentially related. For example, a sales manager who expended enough effort to meet minimum job requirements may have demonstrated low job motivation; however, the poorly motivated manager may have preferred not to work hard. He may have appreciated the opportunity to coast along in his career. Although his job motivation was low, his job satisfaction was high (Dubrin, 1974). Research on motivation had involved many disciplines, including developmental learning and other areas of psychology. Research on job

satisfaction, on the other hand, had come from efforts of industrial psychologists interested in work organizations. No encompassing theories stating causal relationships have been developed for job satisfaction. Most research has consistently looked simply for relationships among variables (Porter, Lawler, & Hackman, 1975).

Lawler (1975) characterized job satisfaction as (1) global in nature, (2) a single variable, and (3) specific factors which are reactions to particular aspects of jobs. Global satisfaction has been defined as a person's affective reactions to his total work role. Campbell, Dunnette, Lawler, and Weick (1970) cited the distinction between general job satisfaction and specific job satisfaction, tied to specific referents, as an important one. A number of investigators have tried to break down the notion of general job satisfaction into relatively independent components (e.g., Ash, 1954; P. C. Smith, 1967; Weiss, Davis, England, & Lofquist, 1967).

Although the structure of job satisfaction thus conceptualized varied somewhat across studies, the similarities were more apparent than the differences. The referents which commonly appeared were such things as pay, working conditions, supervisory practices, company policy, co-workers, opportunities for advancement, security, and the like. Vroom (1964), in his review of job-satisfaction literature, indicated that most studies dealing with the determinants of job satisfaction used specific measures, whereas those dealing with the relationship of job satisfaction to job behavior tended to use more general measures. There were problems when factors of satisfaction were combined to form a global measure. Nezzar (1971) found in her

search for determinants of global satisfaction for managers that determinants varied from company to company even when they were members of the same corporation. Blocker and Richardson (1963), in their 25-year review of morale research in education, noted a trend from global to component (facet or factor) job-satisfaction measures.

Wanous and Lawler (1972) reviewed nine operational definitions of job satisfaction. Data were reported on the relationship between each of these definitions and two traditional measures of overall job satisfaction. The results showed all the operational definitions of job satisfaction did not yield empirically comparable measures of satisfaction. The authors suggested theory and research were needed which mapped in detail the relationships among different ways of measuring global satisfaction, facet satisfaction, and a number of independent and dependent variables.

#### Factors Associated With Job Satisfaction

Many factors have been associated with job satisfaction. General environmental factors in teacher satisfaction were investigated by McCluskey and Strayer (1940) based on work by Hoppock (1935). Garrison (1945), building on McCluskey and Strayer, concluded nearly every aspect of the teacher's environment was involved in adjustment to the job situation. Relationships between satisfaction and supervision in public schools were investigated by Bidwell (1955). He concluded that teachers who perceived administrative procedure as being consistent with their expectations tended to be satisfied with



the teaching situation; teachers whose perceptions were not consistent with expectations were dissatisfied.

There has been some experimental evidence that extensive changes in satisfaction may follow changes in supervision. Jackson (1953) used an attitude questionnaire to measure the attitudes of members of nine work groups, each concerned with the installation or repair of telephone equipment. Subsequent to this measurement, three foremen whose men had relatively positive attitudes toward their leadership were exchanged with three foremen whose men had relatively negative attitudes toward their leadership. The remaining three foremen remained with their original sections and served as controls. Approximately four months after the original attitude measurement, the same questionnaire was readministered. The three work groups who initially had positive attitudes toward their foreman changed in a negative direction. In two of these groups the differences were statistically significant. Similarly, the three work groups who initially had more negative attitudes toward their foreman changed in a positive direction. In two of these groups the differences were significant, while the significance of the third was not tested because the newly acquired foreman had become ill and had to be replaced. The attitudes of the three work groups who had served as controls remained unchanged.

Many of the early Ohio State University studies reported a significant relationship between leader's behavior and satisfaction. Vroom (1964) cited Baumgartel in a study of scientists which indicated directive or participative leadership affected job satisfaction.

Locke, in Steers and Porter (1975) discussed, but didn't empirically test, how a supervisor could contribute to an individual's job satisfaction but could not "motivate" an employee. The supervisor's influence was limited. What he accomplished depended on the values, knowledge, and goals of his subordinates.

Job performance was at one time believed to be caused by satisfaction. Vroom (1964) showed studies which found weak relationships between performance and satisfaction. Recent research has indicated the slight relationship may be due to good performance causing satisfaction (Lawler & Porter, 1967). If we assume rewards caused satisfaction, and in some cases performance produced rewards, then it was possible the relationship found between satisfaction and performance came about through the action of a third variable--rewards. Briefly stated, good performance led to rewards, which in turn led to satisfaction; this formulation then would say that satisfaction was caused by performance.

Katzell, Barrett and Porter (1961), in a study of wholesale warehousing divisions of pharmaceutical companies where variables of performance, satisfaction, and situational inputs were manipulated, found a positive relationship between measures of satisfaction and performance if the situational variables were characteristic of small towns, i.e., fewer employees and more evenly proportioned staffs based on sex.

The evidence which related wage levels to satisfaction is conflicting and confusing. Mathis (1959) and Chandler (1959) reported on studies of the relationship between types of salary schedules and

teacher morale. Using ten systems, five which had merit rating systems and five which did not, they administered an instrument to rate morale. The conclusions were the instrument did differentiate morale but type of pay plan and amount of pay did not significantly affect morale. However, Harap (1959), in field studies conducted by George Peabody College for teachers (1949 and 1957) found salary improvement as the most suggested improvement for morale by teachers in the 20 districts studied. Results of Harap's studies must be put in a proper frame of reference. Salaries in education were low relative to salaries in other occupational groups in the 1949-1957 era, according to the United States Department of Labor Statistics.

Summary.--Summarizing the authors reviewed suggests that understanding of what determines job satisfaction has not substantially increased. Much of this may have been due to a lack of cohesive theory and consistency of results across research studies.

### Other Theories

Theoretical work on job satisfaction includes fulfillment theory, discrepancy theory, and the "Smith et al." theory. These theories will be briefly discussed.

Fulfillment theory.--Schaffer (1953) stated, "job satisfaction will vary directly with the extent to which those needs of an individual can be satisfied are actually satisfied" (p. 3). Using a questionnaire, he measured the strength of 12 needs of each of 72 employed persons. In the same questionnaire he measured the extent to which each need was being satisfied in the work situation and the

individual's overall job satisfaction. In general, the greater the relative strength of the need, the greater the positive correlation between the measure of the degree to which the need was described as being satisfied and overall job satisfaction.

Discrepancy theory.--The discrepancy approach was based on the conceptualization that satisfaction may be determined by the differences between the actual outcomes a person receives and some other expected outcome. When received outcome is below the expected outcome level, dissatisfaction results. Porter (1961) presented a discrepancy approach which saw satisfaction influenced not by how much a person wanted but by how much he felt he should receive. To measure satisfaction he asked respondents how much of a given outcome there should be for a job (ideal) and how much of a given outcome there actually was (real). Locke (1969) emphasized that perceived discrepancy, not actual discrepancy, was important. Satisfaction was determined by the difference between what one wanted and what one perceived he received. Both discrepancy measures did yield different results. For example, a person may feel his present pay is appropriate for his present job and be satisfied; however, he may feel his present pay is below what he wants and be dissatisfied.

"Smith et al." theory.--The inclusion of alternatives within the job situation was hypothesized by Smith et al. (1969):

Feelings of satisfaction are associated with a perceived difference between what is expected as a fair and reasonable return (or when the evaluation of future prospects is involved, what is aspired to) and what is experienced, in relation to the alternatives available in a given situation. Their relation to

behavior depends upon the way in which the individual expects that form of behavior to help him achieve the goals he accepted (p. 50).

Smith et al.'s hypothesis expanded job satisfaction to include environmental or situational variables. This led to theories of social comparison and predictions of employee behavior which are beyond the scope of the present review.

Summary.--Summarizing the research on satisfaction is difficult as strong conclusions cannot be made. Conflicting findings have suggested present theories and models are inadequate as frameworks for an exhaustive investigation of the subject.

### Influence in Organizations

#### Introduction

The literature on influence is filled with diverse definitions and approaches. The words influence, power, control, and authority are redefined across academic disciplines. Sociologists have been concerned with power both as a dependent and an independent variable. Students of business organizations have examined causes and consequences of management control vis-à-vis owners and centralization and decentralization as aspects of the distribution of power. Political scientists have examined the influence of external pressure groups on policy making and administration in governmental agencies as redefined by each researcher to fit his particular situation (Zald, 1969). Dahl (1957), in his comments on the study of power, said, "A thing to which people attach many labels with subtly or grossly different meanings in many different cultures and is probably not a thing at

all but many things some researchers think the study of power is a bottomless swamp" (p. 206).

The word influence has been defined as any behavior which produces an effect whether in behavioral, psychological state or any other condition. Other words connoting influence were control, authority, and power. For the purposes of this research, all the above-named concepts were viewed as differential acts of influence and were treated as influence.

### Typologies

Theorists and researchers have had to create "maps" to guide them through the "swamp" of influence literature (Cartwright, 1965). Typologies have been developed to define or organize the theory and research on influence. French and Raven (1959) created a typology of bases of interpersonal power. Their approach was based on the nature of the relationship between the power holder and the power recipient.

1. Reward power--used in those situations in which the reward is important to the recipient.
2. Coercive power--based on the recipient perceptions of the ability of the power holder to distribute punishment.
3. Legitimate power--when the recipient acknowledged the power holder had a right to influence.
4. Referent power--when the recipient identified with the power holder and tried to emulate him.
5. Expert power--when the recipient attributed special knowledge to the power holder.

All of these forms of power were found in organizations. Experimental studies by French, Morrison, and Levinger (1960) lend support to the conception of bases of power.

Donald Warren (1968) utilized the French-Raven power typology in his analysis of the manner in which school teachers conformed to organizational controls. Warren was concerned with behavioral as opposed to attitudinal conformity as the dependent variable in the power relationship. Behavioral conformity was compliance "in overt behavior, but without internalization and norms" (p. 953). Attitudinal conformity involved both compliance and internalization. Warren also dealt with the visibility of the power recipients. He suggested those recipients subject to coercive and reward power must be highly visible, since their performance must be constantly under surveillance by the power holder. On the other hand, referent and expert power recipients were much less visible, since they shared the same social goals as the power holder. In these latter power forms, the recipients were motivated to conform and there was less need for direct surveillance. Warren found, in most of the school studied, more than one form of power was used. The combinations of power forms were consistent with what would be normally expected. Expert and referent power tended to be found together and were closely related, while coercive and legitimate power had a minimal relationship. Coercive power was the type found alone most often, while referent and expert power were most often combined with one of the other forms. These combinations were important from a theoretical standpoint; they suggested in these cases that power was not something that is available

in a social system in a fixed amount (zero-sum game) but variable within the system, as to both type and amount. Warren then added the professionalism of the teachers to his analysis. He found that in highly professionalized settings coercive power was weak, whereas it was a stronger base in less professionalized settings. The addition of the professional variable weakened the impact of reward power, which apparently was not a major basis for control in these school settings. Legitimate, expert, and referent power were all linked to professionalism, with legitimate power having the strongest association. The control system in a highly professional school then appeared to be most effective when these three forms of power were present and utilized. Control would tend to be ineffective when coercive or reward power was the major basis used.

Further insight into the sources and bases of power is provided in a study by Filley and Grimes (1967) conducted in a nonprofit organization. Thirty-six of the professional organization members were interviewed about eight hypothetical incidents which required them to seek a decision from the director or associate director. Respondents were asked (1) to whom they should go if they were to seek a decision, (2) to whom they would like to go, and (3) to whom they would in fact go. Answers to the above questions were classified according to the bases of power to which the organization members responded. The empirically derived statements of organizational bases of power included: formal authority, responsibility and function, manipulation, default or avoidance, autonomy, expertise, control of resources, bureaucratic rules, traditional rules, collegial friendship, and equity.



Patchen (1974) examined 33 specific purchasing decisions in 11 firms. In each organization, a person knowledgeable about the purchasing function was interviewed about a nonrepetitive purchase made in the firm, typically one where a product was bought for the first time or where it had been purchased only infrequently. For each decision, this knowledgeable person was asked to supply the names and titles of others who were involved in the purchase. A total of 180 interviews were conducted concerning the 33 cases; these interviews were with those designated originally as being involved in the purchase and with others whose importance to the decision-making process was revealed during the initial interviews. Individuals involved in the decision were asked (1) who brought the problem to their attention and with whom they have discussed the problem, (2) their role in the decision, (3) who was involved during each stage of the decision, (4) what difference of opinion existed within the firm, (5) how such differences were resolved, and (6) who they judged had the greatest influence on the decision and why. One of the most striking findings in this study was the lack of agreement among people interviewed as to who had had the most influence in making the decision. Patchen suggested that only in a few cases was there a single, prime decision maker; his data show that most often the decision meetings, problem solving, and getting additional information were much more frequently used to resolve conflicts than were decisions made by persons with higher authority. A variety of answers were obtained in response to the question, "Why did the person named as most influential in the decision have so much influence?" (p. 195). The majority of the

responses concerned characteristics related to the extent to which the person would be affected by the decision. Sometimes the explanation was a general statement that someone would be affected. For example, in a company which makes musical instruments, the choice of a tractor truck was said by one informant to have been influenced most by the traffic supervisor. Closely related was the somewhat more specific assertion that a certain person was influential in the decision concerning a purchase because the product would be used by him or his department. In addition to being affected by virtue of having to use the product, a man may be affected in other ways by the decision. A variety of responsibilities, the meeting of which might be affected by the decision, were mentioned as reasons for great influence. The characteristics mentioned next most frequently had to do with the expertise of the individual with influence; this experience sometimes took the form of specific information, sometimes a more general kind of knowledge. Formal responsibility of the influential individual to play a key role was also mentioned as a frequent basis for power, as was the fact that the individual had formal, legitimate authority.

While many responses referred to individual characteristics, as indicated above, other respondents suggested that the activities of certain persons were the reason for their influence. The two most commonly mentioned activities were "prodding others to act" (that is, bringing the need for the new product to others' attention) and those connected with information gathering and technical matters.

Patchen concluded by examining his data with particular reference to the French and Raven classification of power, described earlier in this chapter:

The data indicate first the coercive power and reward power are noticeable chiefly by their absence. Influence was never attributed to the characteristics of control over material sanctions, nor to activities involving use of such sanctions (e.g., threat, promise, punishment, reward). It is possible that some respondents were reluctant to talk about such modes of influence. It may be, too, that the possible use of sanctions lurks behind other characteristics or activities which were some-referent power. . . . Influence did appear to be due often to expert power. A man's expertise was frequently mentioned as the reason he was influential in a decision. . . . A second basis of power which was present was legitimate power. The responsibilities, duties, for formal authority which a man made, the characteristics of someone with legitimate power, were given with some frequency as reasons for influence (pp. 216-17).

Etzioni (1961) attempted to develop a typology and an analytical scheme for organizational analysis in his three forms of power: coercive, remunerative, and normative. Coercive and remunerative power were almost identical to French and Raven's coercive and reward power. Normative power was similar to referent power.

Yet another typology of influence was suggested by Cartwright (1965). Theory and empirical studies were organized into three categories: (1) the agent exerting influence (O), (2) the method of exerting influence, and (3) the agent subject to influence (P). When an agent O performed an act resulting in some change in another agent P, O had influenced P. If O had the capability of influencing P, O had power over P. Research findings were included on persuasion, conformity, supervision, decision making, and exercise of economic, political, and military power.

### Perception of Influence

The measurement of members' perceptions of organizational influence was studied extensively in many types of organizations by Tannenbaum (1968). Tannenbaum and Georgopolos (1957) used an instrument called the control graph. In summarizing a series of studies on the amount of power in organizations, Tannenbaum noted the expansion of power may occur under either of two classes of conditions. The first was that of an external expansion of power into the organization's environment. At the same time, increased opportunities to exercise control within the organization may have contributed to the members' involvement in and identification with the organization and hence increased their interest in exercising control and their amenability to being controlled. Members, then, as possible control agents, engaged in more frequent influence attempts, and as possible objects of control, provided new opportunities to one another to exercise control.

Hickson, Hinings, Lee, Schnech, and Pennings (1973) theorized that control within organizations was not exclusively vertical; horizontal control and coordination were necessary. Furthermore, questions of organizational control should focus on units or departments within an organization rather than on individual relations exclusively. They argued differential power among organization units was central to the question of organizational control and direction. Thompson (1967) and Lawrence and Lorsch (1967) stated all organizational units faced contingencies and constraints which limited their ability to control themselves, and that all units face interdependence with other units.

Power became a question of unequal dependencies among units. In order to maintain control, an organizational subunit sought power relative to other units by (1) absorbing or coping with some of the uncertainty faced by the other unit, (2) reducing its substitutability relative to other units, or (3) increasing its centrality to the work flow of the organization.

### Influence in Education

Additional research on influence in education organizations was Funk's study (1964) as reported by Briner and Iannaccone (1966). The research dealt with two administrative roles--the high school principal and instructional supervisor in a large school district--using a variety of measures including documents and survey questions. Funk found that the principals-supervisors followed a typical line and staff configuration explored by Browne (1949). Following this, the power of principals was most consistent with French and Raven's legitimate power while supervisors tend to use expert power.

### Conclusion

The above survey of the literature on influence has indicated influence relationships in organizations are typically thought to be interpersonal. It has also been pointed out that power differentials between organizational units usually take place along the lateral or horizontal axis in the organization. Vertical or hierarchical arrangements by definition involve in influence component. There was evidence that influence in organizations does not take just one form. The empirical research reviewed provided additional insights into these

relationships. In a broader look at influence, it was emphasized that influence was not a fixed sum in organizations. The amount of power in the system could increase or decrease.

### Instruments and Related Research

#### Leader Behavior Description Questionnaire (LBDQ)

The original LBDQ was developed by John Hemphill and Oliver Coons in 1957, as was part of the Ohio State University leadership research. In subsequent research Halpin and Winer (1957) identified two factors of leader behavior, named consideration and initiation of structure. Stogdill (1959) developed a theory of leader role differentiation and group achievement which suggested ten additional factors. Items were developed for the newly posited factors and successively item analyzed, revised, readministered, reanalyzed, and revised with various groups. At various stages in the development of the instrument, Stogdill, Goode, and Day (1962) conducted research projects utilizing the LBDQ and described the leadership behavior of community development leaders, United States senators, corporation presidents, and presidents of labor unions.

The LBDQ, Form XII, is a measure to obtain descriptions of a supervisor by the group members he supervises. It can be used to describe the behavior of the leader or leaders in any type of group or organization (Stogdill, 1963). It includes 12 subscales based on hypothesized dimensions of leader behavior.

1. Representation: speaks and acts as the representative of the group (five items).

2. Demand reconciliation: reconciles conflicting demands and reduces disorder to system.
3. Tolerance of uncertainty: is able to tolerate uncertainty and postponement without anxiety or upset.
4. Persuasiveness: uses persuasion and argument effectively; exhibits strong convictions.
5. Initiation of structure: clearly defines own role, and lets followers know what is expected.
6. Tolerance of freedom: allows followers scope for initiative, decision, and action.
7. Role assumption: actively exercises the leadership role rather than surrendering leadership to others.
8. Consideration: regards the comfort, well-being, and contributions of followers.
9. Production emphasis: applies pressure for productive output.
10. Predictive accuracy: exhibits foresight and ability to predict outcomes accurately.
11. Integration: maintains a closely knit organization; resolves intermember conflicts.
12. Superior orientation: maintains cordial relations with superiors; has influence with them, is striving for higher status.

### Related Research on the LBDQ

Brown (1967) utilized the LBDQ, Form XII, with 170 schools in Alberta, Canada. The mean scores on all 12 subscales were compared to reference groups of corporation presidents, labor presidents, college presidents, and community leaders. Brown stated:

Because of mean and other population differences, comparisons between groups can only be hinted, at best. From inspection, however, one derives the general image of the principal, as compared with the other leaders, as a very tolerant fellow (regarded by his staff certainly as more tolerant of professional or academic freedom than are college presidents) with little upward drive or productivity push who, over the total picture, probably appears to his teachers as much the sort of person as a community leader, certainly not like an executive president (p. 62).

### The Job Description Index (JDI)

The JDI, developed by Edwin Locke, Patricia Smith, and Charles Hulin at Cornell University during a ten-year research effort on job satisfaction, attempted to measure job satisfaction in the areas of pay, promotion, supervision, type of work, and people on the job. Using 72 adjectives or descriptive phrases, the respondent was asked to decide if the items described his job.

The JDI was validated using responses of 952 people in seven organizations. Corrected split-half internal consistency coefficients were reported to exceed .80 for each scale. There were several factors intrinsic to the scale which recommend its use. The concepts are distinct and do not require the respondent to understand complicated or vague abstractions. While the JDI was neither projective nor directive, it did approach "job satisfaction" somewhat indirectly. The respondent is asked to describe his job rather than his feelings



about it. In addition, the JDI had validity, could be easily administered, and scored in a short time (Robinson, Athanasiou, & Head, 1969).

#### Related Research on the JDI

Hulin (1966, 1968) gave evidence of stability of the JDI over time in his studies of the impact of job satisfaction on turnover among female clerical employees. In 1966 he matched each subject who subsequently left the company ("leavers") over a 12-month period with "stayers" (employees who remained with the organization) along demographic dimensions. Significant differences were found between stayer and leaver groups on mean satisfaction scores. This raised the question of the possibility of reducing turnover by increasing a worker's degree of satisfaction on the job. The company instituted new policies, and approximately one and one-half years after these changes, Hulin (1968) again administered the JDI to a sample similar to the previous one. Subsequent "leavers" were matched with "stayers," and again terminations were significantly related to the degree of worker satisfaction. Satisfaction scores with four of the five JDI scales rose significantly between the first and second studies, while the turnover rate dropped approximately 80%.

Vaughn and Dunn (1972) used the JDI in studies of staff satisfaction in six large university libraries. In a subsequent article, the following basic criteria for selecting an instrument to measure job satisfaction were given:

1. It should index the several dimensions of job satisfaction.

2. It should be applicable to a wide variety of jobs.
3. It should be sensitive to variations in attitudes.
4. The instrument used should be of such a nature (interesting, realistic, and varied) that the scale will evoke cooperation from both management and employees.
5. The index should be reliable.
6. The index should be valid.
7. The index should be brief and easily scored.
8. Normative data should be available.

#### General Influence--The Control Graph

The control graph developed by Arnold Tannenbaum is a straightforward Likert scale on which people at various levels of an organization rate the amount of influence they and people at other levels have in running the organization, i.e., a general measure of members' perceptions. Tannenbaum collected data from a wide variety of voluntary and formal organizations. It was used as a research instrument to indicate the manner in which influence is structured as reported by members within the organizations.

#### Related Research--Control Graph

Studies which related influence to organizational effectiveness in voluntary organizations and in labor unions were reported by Morse and Reiner (1956), Tannenbaum (1956, 1962, 1961), and Likert (1960, 1961). Williams, Hoffman, and Mann (1959) investigated influence in a staff division of a large company. The perceptions of the influence structure by two different organizational levels showed

marked similarity, indicating the consistency of the method. Differences in the perceptions of the influence structure of two subgroups within the division attributable to their different functions and administrations illustrated its discriminatory power.

Lazerfield and Thielens (1958), in their study of the academic mind, also used a global question to assess the power situation in universities. A sample of faculty members were asked, "If you had to choose one, who would you say has the most powerful voice on campus in deterring the academic freedom that exists here? The trustees, president, the deans, the heads of departments, faculty, students, or who?" A measure based on these answers was strongly related to the overall improvement of quality within the university.

### Specific Influence

Specific measures of influence developed with the need for a more stringent definition of influence. "The present method (control graph) leaves the definitional problem with the respondent. He must decide what 'influence' means for him and then respond to the questionnaire in terms of his own definition" (Williams et al., 1959, p. 195). Levine's (1973) criticism of Tannenbaum's methodology was based on one item of measurement for perception. Halo effect, social desirability, self-esteem, and error of measurement can be serious when one-item measures are used. Patchen (1962) proposed that organizational influence could alternatively be measured by examining influence across a number of specific decision situations and then summing these into a simple index. He compared the use of a global index, the

control graph, with specific decision situation questions from data collected on a manufacturing company and its dealerships. He concluded the measure of influence based on specific influence areas was more a reliable measure of the influence structure than a global-type question among persons at the same organizational level. The measurement of more specific aspects of influence in the manufacturing company was obtained by responses to the following questions:

1. When it comes to decisions about who should be selected to be transferred if many have applied for the same job opening, how much say or influence do you feel the persons listed below have on these decisions?
  - a. the hourly paid employees
  - b. the group leader
  - c. the foreman
  - d. higher manufacturing managers
  - e. the union executive committee
  - f. people in staff departments, such as personnel, industrial engineering, scheduling, etc.

(For each of the levels judged, the following fixed-alternative responses were provided: "Little or no influence," "Some influence," "Quite a bit of influence," "A great deal of influence," "A very great deal of influence") (Patchen, 1963).

#### Related Research With Demographic Information

Smith et al. (1969) used situational or demographic variables as stratification variables to develop tables of stratified norms for the JDI. Their rationale was satisfaction varied with variables which contribute to frames of reference. "Income or community prosperity, or similar variables . . . are proposed as indices of relevant personal and situational factors which influence frames of reference" (p. 75). Through cluster analysis and multiple regression, the six

variables of sex, income, education, job tenure, community prosperity, and community decrepitude were chosen for stratification from a previous pool of 29 demographic variables.

Hulin (1966), in his study of job satisfaction and turnover with female office workers, used the demographic variables of age, educational level, job level, mother tongue, and marital status as controls. The two subgroups, nonterminators and terminators, were matched on the control variables. No significant differences in any of the control variables were observed between the two groups.

Barton (1961) included demographic variables in his descriptive categories of organizational research. Size is perhaps the most frequently measured variable as it is easy to measure. Another study made of a union which underwent fluctuations in size over 50 years attempted to see how other factors were related to size (Brown, 1956). Using organizational records, measures of intra-union conflict were constructed (i.e., number of challenges to convention delegates). All indicators of conflict appeared when the membership was small and declined when it grew.

Spicknall (1970) used demographic variables in the study of organizational climate among special education staffs in intermediate school districts. Correlations between innovativeness, organizational climate, and demographic variables were analyzed. Demographics relating to the adoption of innovative programs were size of school-age population, professional organization membership, and staff reading habits.

### Summary of Review of the Literature

There is no consistent body of research in the study of organizations and organizational variables. Descriptions of the variables of leadership, job satisfaction, and influence are so varied from study to study that comparisons are difficult. Further, early researchers described some variables erroneously and suggested causal relationships from correlational data. Early descriptions of the variables were based on a static, simplistic view of organizations and organizational research.

The literature as reviewed in this study suggests organizational research of the variables is still in its early stages where hypothesis "suggesting" and theory seeking using correlational data are still the predominant methods of research.

## CHAPTER III

### PROCEDURE AND METHODOLOGY

#### Introduction

In this study, leadership and demographic information are considered independent variables and are expected to have a moderating effect on the dependent variables of job satisfaction and influence. Leadership is defined as a process whereby one person exerts social influence over the members of the group. A leader, then, is a person with power over others, who exercises this power for the purpose of influencing their behavior. Leadership is measured on the Leader Behavior Description Questionnaire (LBDQ) Form XII (Stogdill, 1963). The LBDQ includes the following 12 subscales, which are dimensions of leader behavior: representation, demand reconciliation, tolerance of uncertainty, persuasiveness, initiation of structure, tolerance of freedom, role assumption, consideration, production emphasis, predictive accuracy, integration, and superior orientation.

Demographic information, as specified in the questionnaire, includes measures of position, age, race, sex, years in the district, and years in position.

Influence and job satisfaction are considered dependent variables. Influence as a function of leadership is defined as any process whereby a person or group of persons or organization determines or intentionally affects the behavior of another person, group, or

organization. Influence is measured by questions based on Tannenbaum's (1968) control graph and Patchen's (1963) questions. Measures were taken on these 17 questions from all respondents.

Job satisfaction is defined as the attitude of workers toward the company, their job, their fellow workers, and other psychological objects in the work environment. Job satisfaction is measured by the Job Description Index (JDI) (Smith, Kendall, & Hulin, 1969). The JDI includes five dimensions of job satisfaction: work on present assignment, present pay, opportunity for promotion, supervision in present assignment, and people in present assignment.

#### Data-Collection Procedure

To assess the applicability of the Job Description Index to school populations, the clarity of the survey, and the estimated time necessary to complete the questionnaire, a pilot survey was conducted. Respondents were 15 special and general educators chosen at random from the personnel registers of Michigan local school districts. The pilot was conducted one month before the survey. Changes resulting from the pilot were: (1) changing "he" on the LBDQ to read "he/she," (2) placement of demographic information as the first items of the survey, (3) deletion of items on the JDI which were not applicable to public organizations. The "revised" JDI consists of 58 items in the five categories listed in the Appendix. These changes were determined to be so minor that it was presumed the original validity and reliability of the instrument were not affected. (See Appendix A.)



A survey of the directors, supervisors, and itinerant special education staff in 49 of the existing intermediate school districts in Michigan represented the sample for this research. "Intermediate" school districts are defined as those districts organized on a county or multi-county basis, as described in Public Act 190 of 1957. The intermediate school district must meet two criteria to qualify for inclusion in the study: (1) a state-approved director of special education must be employed, and (2) there must be more than seven employees in the special education area. The entire population of concern is included in the study. Intermediate school districts were selected for study because of their (1) consistent organizational structure in special education, (2) identifiable listing of personnel in special education, and (3) previous research studies in special education. The three positions of directors, supervisors, and itinerant special education staff were selected for study because of the research interest in leadership, influence, and job satisfaction. The instruments used require direct contact with the leader. It was assumed the itinerant special education staff housed at the intermediate school district office would have the contact with the director and supervisor necessary to report on these positions.

Personnel registers from the Michigan Department of Education--special education service area for 1974-75 were received, and an updated list in the fall of 1975 provided the population list for the study. The total population included in the survey was 1,162: 49 directors, 123 supervisors, and 990 itinerant staff members.

The survey questionnaire, sent by mail to the potential respondents in each intermediate district, included: (1) a letter of introduction and explanation, (2) the survey instrument, and (3) a return-addressed envelope. The directors received an additional letter requesting their participating in the study and directions to give the survey to new personnel if a participant had been replaced. A follow-up mailing was sent within three weeks of the original to urge nonrespondents to participate. (See Appendix B.)

The response rate for the survey was 54% or 628. A total of 610 usable questionnaires were used in the study: 31 directors, 82 supervisors, and 480 itinerant staff members. The respondents answered all questions on machine-scorable (optical scan) answer sheets, which were specifically designed for the present study. The individual items that made up the variables of leadership, job satisfaction, and influence were summed to produce scales.

#### Independent Variables and Measures

The independent variable of leadership was measured using the LBDQ, Form XII. As described earlier in this text, the LBDQ is made up of 12 subscales: representation, demand reconciliation, tolerance of uncertainty, persuasiveness, initiation of structure, tolerance of freedom, role assumption, consideration, production emphasis, predictive accuracy, integration, and superior orientation. The total scale has 100 items. Responses are scored on a Likert scale of 1-5 or low to high for positive items and 5-1 or high to low for negative items. Each response is tabulated and summed to provide a subscale score.

Each subscale score represents a respondent's score on the leadership variables.

Demographic information provided the other independent variable. The demographic measures used were the following: (1) position in district: (a) director, (b) supervisor, (c) staff; (2) size of district's special education staff: (a) 31 or above--large, (b) 30 or below--small; this dichotomy follows the example of Hodson (1975); (3) age--seven categories for age, listed in five-year intervals; (4) race--five categories for race were given; (5) sex; (6) length of time in present position, and (7) length of time in present district, categorized by (a) less than three years or (b) more than three years. The length of time an individual had been employed by the district was dichotomized so members employed after the effective date for mandated special education (1971) could be compared with previous employees.

#### Dependent Variables and Measures Used

The dependent variable of job satisfaction, as described previously, was measured with the JDI. The original JDI contains 72 items composing five categories: satisfaction with work, satisfaction with supervision, satisfaction with people, satisfaction with pay, and satisfaction with promotions. Only the positive items are scored with a scale of 0, 1, 2, 3; the higher the score, the higher the degree of job satisfaction reflected by the item. The score of respondents on each category is the sum of the positive items. The possible score on each survey ranges from a low of zero (no response) to a high score

of 30. The "revised" JDI used in this research consists of 58 items in the five categories listed above.

The dependent variable of influence is measured with a series of questions developed by Tannenbaum (1968) and Patchen (1963). The original questions were described previously. Directors, supervisors, and itinerant staff were asked to respond to questions of influence of each group in six categories: (1) general influence, (2) influence in selection of new personnel in the ISD, (3) influence in establishing new special education programs in the ISD, (4) influence in curriculum changes in the ISD, (5) influence in the promotion of personnel in the ISD, and (6) influence in establishing new policies in the ISD. Each category represents a subscale, and responses for each are measured on a Likert-type scale with five choices possible: (1) little influence, (2) small amount of influence, (3) moderate amount of influence, (4) large amount of influence, and (5) complete influence. The responses are summed for a score on each subscale.

#### Design of the Data Analysis

This study is basically an exploratory investigation of the effects of leadership and demographic information on job satisfaction and influence. As such, frequency distributions, correlation-regression techniques, and analysis of variance are all used as descriptive tools. The frequency distributions present an overview of the raw data, as do other descriptive statistics such as means and variances. Correlation-regression techniques are used because of their past performance for: (1) permitting the measure of a great number of variables

and their interrelationships simultaneously, (2) providing information concerning the degrees of relationship between variables, (3) giving deeper insights into the relationship than is possible with research designs that do not yield some estimate of degree, and (4) outputting of prediction equations.

The validation work in the JDI by Smith et al. (1969) and the LBDQ, Form XII by Stogdill (1963) have lent support that both are at least ordinal. Tufte (1970) and Labovitz (1972) argued that Pearson correlation coefficients and other statistics designed for interval-level measurement may be used even if the data satisfy only the assumption of ordinal-level scales.

Frequency distributions, correlations, and group comparisons are computed for the various cells of the schematic representation of the study as shown in Table 1. Specifically, (1) each dependent measure (i.e., the six measures of influence and five measures of job satisfaction) are regressed on each of the independent measures (i.e., the seven demographic measures and twelve subscales of the LDBQ) for both the total population and for each of the three positional groups (i.e., directors, supervisors, and staff); (2) analyses of variance are computed, comparing differences between the assorted levels of the demographic variables on the dependent measures; and (3) multiple regression analyses are computed in an attempt to estimate the effects of combinations of the independent variables as predictors of the dependent measures.

Table 1.--Schema of research design of matrix for correlations of dependent and independent variables (N = 610).

|             |                               | DEPENDENT VARIABLES  |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|-------------|-------------------------------|----------------------|----------------------|---------------------------|-----------------|---------------------------|------------------------|-------------------|---------------------------------|-------------------------------|----------------------------------|----------------------------|
|             |                               | Influence            |                      |                           |                 |                           | Job Satisfaction (JDI) |                   |                                 |                               |                                  |                            |
|             |                               | 1. General influence | 2. Curriculum change | 3. Selection of personnel | 4. New programs | 5. Promotion & job change | 6. Policies formation  | 7. Work--your job | 8. People on ISO staff--sp. ed. | 9. Characteristic of supervn. | 10. Pay--details of remuneration | 11. Nature of promot. opp. |
| Demographic | 1. Position in district       |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 2. Number of staff            |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 3. Age                        |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 4. Race                       |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 5. Sex                        |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 6. Length of time in district |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 7. Length of time in position |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
| Leadership  | 8. Representation             |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 9. Demand reconciliation      |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 10. Tolerance of uncertainty  |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 11. Persuasiveness            |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 12. Initiation of structure   |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 13. Tolerance of freedom      |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 14. Role assumption           |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 15. Consideration             |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 16. Production emphasis       |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 17. Predictive accuracy       |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 18. Integration               |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |
|             | 19. Superior orientation      |                      |                      |                           |                 |                           |                        |                   |                                 |                               |                                  |                            |

p < .001.

## CHAPTER IV

### RESULTS AND ANALYSIS

#### Description of the Sample

##### Demographic Information

The sample population for this study is composed of special education personnel in intermediate school districts in Michigan. An intermediate school district in Michigan is a regional educational administrative unit, organized as an intermediary between the Michigan Department of Education and local school districts. Specific functions of an intermediate school district include child accounting, transportation, land transfers, vocational education, media, and special education. Special education is defined as programs and services for handicapped children and youth. These programs and services are mandatory by federal and state law. Special education responsibilities at the intermediate level require comparatively large, differentiated, professional staffs to provide the mandated services. Three of these subgroups were surveyed: (1) special education directors--directors have management or administrative personnel responsible for the overall functioning of the special education unit; (2) special education supervisors--supervisors have administrative responsibilities for specific special education programs, usually in one area of exceptionality; and (3) itinerant staff--included were

teacher consultants in various special education program areas who did not have direct responsibility for a classroom.

Special education directors represent 31 or 5.2% of the total sample; special education supervisors, 82 or 13.8%; and special education itinerant staff, 480 or 80.9% of the total sample.

Intermediate school district sizes vary from the 153 respondents in "small" districts which have 30 or fewer special education staff members to the 422 respondents in "large" districts which have a staff of 31 or more members.

The ages of the respondents are grouped by five-year intervals. One hundred ninety-three respondents are between the ages of 26-30 years; 113 between the ages of 31-35; 92 between the ages of 36-40; 58 between the ages of 41-45 years; 56 between the ages of 46-50; 36 between the ages of 51-55; 35 between the ages of 56-60 years of age. Each progressive age category accounts for fewer respondents; 68.3% of the total sample is 40 years of age or younger.

White respondents represent 96.9% of the total, while of the four minority categories which are represented, blacks and native Americans are the largest groups, representing 1.2% and 1.0%, respectively.

Females represent 59.9% (329) of the sample population and males 40.1% (220). Sixty-two and three-tenths percent of the respondents have worked in the sampled intermediate school district for three or more years; 37.7% have worked in their district for less than three years. Additionally, 39.9% of the respondents have been in their present positions for less than three years.



The sample for this study is composed of respondents from 49 intermediate school districts. Fifty-four percent of the 1,162 questionnaires sent out were returned and are used in the analyses. Summaries for these comparative data can be found in Table 2.

#### Descriptions of the Scales for Other Variables

The scales for leadership (LBDQ), influence, and job satisfaction (JDI) were calculated for each respondent, and frequencies, means, and standard deviations were computed. Summaries for these data are listed in Table 3.

Respondents in one of the intermediate school districts included in the sample received notice of employment termination one week prior to the date of the survey to determine if this group's responses were significantly different from the rest of the sample. The population variances were found to be homogeneous; thus pooled variance terms and student's T distribution are used. No significant differences between group means were found.

#### Correlation Analyses of the Total Population

The dependent variables of job satisfaction (five measures) and influence (six measures) were correlated with the independent variables of leadership (twelve measures) and demographic information (seven measures). In addition to the individual correlations, multiple linear regressions were constructed using certain key variables to determine the correlational effect of these variables as predictors.

In general, the correlations between leadership variables and influence were of lesser magnitudes (.20-.31) than the correlations

Table 2.--Summary characteristics of the sample (N = 610).

| Variable                                    | N   | %<br>(Adjusted<br>Frequency) |
|---|-----|------------------------------|
| <u>Position of respondents</u>              |     |                              |
| Director                                    | 31  | 5.2                          |
| Supervisor                                  | 82  | 13.8                         |
| Staff                                       | 480 | 80.9                         |
| <u>Special ed. staff number in ISD</u>      |     |                              |
| 30 or below                                 | 153 | 26.6                         |
| 31 or above                                 |     | 73.4                         |
| <u>Age of respondents</u>                   |     |                              |
| 26-30                                       | 193 | 33.1                         |
| 31-35                                       | 113 | 19.4                         |
| 36-40                                       | 92  | 15.8                         |
| 41-45                                       | 58  | 9.9                          |
| 46-50                                       | 56  | 9.6                          |
| 51-55                                       | 36  | 6.2                          |
| 56-60                                       | 35  | 6.0                          |
| <u>Race of respondents</u>                  |     |                              |
| Black                                       | 7   | 1.2                          |
| White                                       | 568 | 96.9                         |
| Chicano                                     | 2   | .3                           |
| Native American                             | 6   | 1.0                          |
| Oriental                                    | 3   | .5                           |
| <u>Sex of respondents</u>                   |     |                              |
| Male  | 220 | 40.0                         |
| Female                                      | 329 | 59.9                         |
| <u>Years respondents worked in ISD</u>      |     |                              |
| Less than 3                                 | 220 | 37.7                         |
| 3 or more                                   | 363 | 62.3                         |
| <u>Years respondent in present position</u> |     |                              |
| Less than 3                                 | 222 | 39.9                         |
| 3 or more                                   | 335 | 60.1                         |

Table 3.--Summary statistics on independent and dependent variables of leadership, influence, and job satisfaction.

|                                      | N   | Mean<br>Score | Standard<br>Deviation |
|--------------------------------------|-----|---------------|-----------------------|
| <u>LDBQ Leadership Variable Name</u> |     |               |                       |
| Representation                       | 610 | 17.6          | 3.34                  |
| Reconciliation                       | 610 | 17.3          | 3.87                  |
| Tolerance of uncertainty             | 610 | 33.1          | 6.53                  |
| Persuasiveness                       | 610 | 33.4          | 6.71                  |
| Initiation of structure              | 610 | 34.0          | 6.05                  |
| Tolerance of freedom                 | 610 | 37.9          | 6.35                  |
| Leadership assumption                | 610 | 36.0          | 6.55                  |
| Consideration                        | 610 | 34.5          | 7.10                  |
| Production emphasis                  | 610 | 28.8          | 5.36                  |
| Predictive accuracy                  | 610 | 17.8          | 3.46                  |
| Integration                          | 610 | 15.9          | 4.02                  |
| Superior orientation                 | 610 | 34.0          | 6.11                  |
| <u>Influence</u>                     |     |               |                       |
| General influence                    | 610 | 8.7           | 2.44                  |
| Curriculum                           | 610 | 7.8           | 2.65                  |
| Selection of new personnel           | 610 | 8.0           | 2.65                  |
| Development of new programs          | 610 | 8.6           | 2.35                  |
| Promotion                            | 610 | 7.2           | 2.36                  |
| Development of policy                | 610 | 7.9           | 2.34                  |
| <u>JDI Job Satisfaction</u>          |     |               |                       |
| Satisfaction with work               | 610 | 12.3          | 4.37                  |
| Satisfaction with people             | 610 | 15.1          | 3.85                  |
| Satisfaction with supervision        | 610 | 21.6          | 7.29                  |
| Satisfaction with pay                | 610 | 4.0           | 2.52                  |
| Satisfaction with promotion          | 610 | 2.7           | 2.94                  |

between leadership and job satisfaction variables (.20-.67). No practically significant correlations were observed between the demographic variables and either job satisfaction or influence. Similarly, the measure of satisfaction with pay showed no meaningfully significant correlations with leadership. However, integration and consideration correlated with more of the dependent variables than the other ten leadership variables. The correlations are summarized in Table 4.

#### Influence and Leadership

General influence correlated quite highly with eight of the leadership measures. Policy formation correlated with seven leadership measures. Integration was the leadership variable which correlated with all of the influence measures. Superior orientation, initiation of structure, and consideration correlated with four out of the five influence measures.

#### Job Satisfaction and Leadership

Characteristics of supervision (job satisfaction) correlated with all the leadership variables (eleven) except production emphasis, with magnitudes ranging from .30 to .67. The satisfaction variables of people on the ISD staff and work were correlated with nine leadership variables. Eight out of nine leadership variables were the same for the two satisfaction variables.

The leadership variables of demand reconciliation (.22-.48), consideration (.20-.67), predictive accuracy (.23-.51), and integration (.28-.58) correlated with all of the satisfaction measures except pay.

Table 4.--Correlations of independent and dependent variables for the total population (N = 610).

|                      |                            | DEPENDENT VARIABLES |                   |                        |              |                        |                    |                        |                              |                               |                               |                           |
|----------------------|----------------------------|---------------------|-------------------|------------------------|--------------|------------------------|--------------------|------------------------|------------------------------|-------------------------------|-------------------------------|---------------------------|
|                      |                            | Influence           |                   |                        |              |                        |                    | Job Satisfaction (JDI) |                              |                               |                               |                           |
|                      |                            | General influence   | Curriculum change | Selection of personnel | New programs | Promotion & job change | Policies formation | Work--your job         | People on ISD staff--sp. ed. | Characteristic of supervision | Pay--details of remuneration. | Nature of promotion. opp. |
| Demographic          | Position in district       |                     |                   |                        |              |                        |                    |                        |                              |                               |                               |                           |
|                      | Number of staff            |                     |                   |                        |              |                        |                    |                        |                              |                               |                               |                           |
|                      | Age                        |                     |                   |                        |              |                        |                    |                        |                              |                               |                               |                           |
|                      | Race                       |                     |                   |                        |              |                        |                    |                        |                              |                               |                               |                           |
|                      | Sex                        |                     |                   |                        |              |                        |                    |                        |                              |                               |                               |                           |
|                      | Length of time in district |                     |                   |                        |              |                        |                    |                        |                              |                               |                               |                           |
|                      | Length of time in position |                     |                   |                        |              |                        |                    |                        |                              |                               |                               |                           |
| Leadership           | Representation             |                     |                   |                        |              |                        | .20                | .20                    | .22                          | .35                           |                               |                           |
|                      | Demand reconciliation      |                     |                   |                        |              |                        |                    | .24                    | .22                          | .48                           |                               | .22                       |
|                      | Tolerance of uncertainty   |                     |                   |                        |              |                        |                    | .22                    |                              | .49                           |                               |                           |
|                      | Persuasiveness             | .26                 |                   |                        | .22          |                        | .21                | .28                    | .28                          | .49                           |                               | .25                       |
|                      | Initiation of structure    | .26                 | .25               |                        | .22          |                        | .24                | .20                    | .24                          | .40                           |                               | .21                       |
|                      | Tolerance of freedom       |                     |                   |                        |              |                        |                    | .27                    | .23                          | .46                           |                               |                           |
|                      | Role assumption            | .20                 |                   |                        |              |                        |                    |                        | .22                          | .39                           |                               | .21                       |
|                      | Consideration              | .28                 | .20               |                        | .25          |                        | .22                | .27                    | .30                          | .66                           | .29                           |                           |
|                      | Production emphasis        | .20                 | .20               |                        |              |                        |                    |                        |                              |                               |                               |                           |
|                      | Predictive accuracy        | .23                 |                   |                        |              |                        | .20                | .27                    | .25                          | .50                           |                               | .22                       |
| Integration          | .31                        | .26                 | .22               | .27                    | .20          | .28                    | .28                | .33                    | .59                          |                               | .35                           |                           |
| Superior orientation | .27                        |                     |                   | .25                    | .22          | .28                    |                    |                        | .30                          |                               |                               |                           |

p &lt; .001.

Correlation Analyses of the Three Positions:  
Director, Supervisor, and Itinerant Staff

The initial correlations which examined the relationships between the dependent and independent variables displayed nonsignificant interactions for demographic information and satisfaction with pay (Table 4). To investigate relationships which might be present, additional correlations were computed using the dependent variables of job satisfaction (five measures) and influence (six measures) on the independent variables of leadership (twelve measures) and demographic information (seven measures) by the three positional levels of director, supervisor, and itinerant staff. Where data from these correlations provided significant information for the interpretation of results, they were reported in Tables 5, 6, and 7.

Correlation Analysis for Directors

Dependent variables and demographic information.--Summary data for these correlations are contained in Table 5. Demographics correlated with two influence measures and three job satisfaction measures. Influence on promotions correlated with age. Influence in curriculum correlated with length of time director was in the district. Satisfaction with work correlated with race and sex. Satisfaction with supervision correlated with years worked in the ISD.

Dependent variables and leadership.--Table 6 contains correlations showing relationships between the dependent variables and leadership. Eight leadership measures correlated with general influence. Seven leadership variables correlated with policy formation

Table 5.--Correlations of demographic information with influence and job satisfaction matrix for director (N = 31).

|                       |             | DEPENDENT VARIABLES        |                   |                        |              |                        |                        |                |                              |                               |                               |
|-----------------------|-------------|----------------------------|-------------------|------------------------|--------------|------------------------|------------------------|----------------|------------------------------|-------------------------------|-------------------------------|
|                       |             | Influence                  |                   |                        |              |                        | Job Satisfaction (JDI) |                |                              |                               |                               |
|                       |             | General influence          | Curriculum change | Selection of personnel | New programs | Promotion & job change | Policies formation     | Work--your job | People on ISD staff--sp. ed. | Characteristic of supervision | Pay--details of remuneration. |
| INDEPENDENT VARIABLES | Demographic | Position in district       |                   |                        |              |                        |                        |                |                              |                               |                               |
|                       |             | Number of staff            |                   |                        |              |                        |                        |                |                              |                               |                               |
|                       |             | Age                        |                   |                        |              | .30                    |                        |                |                              |                               |                               |
|                       |             | Race                       |                   |                        |              |                        |                        | .43            |                              |                               |                               |
|                       |             | Sex                        |                   |                        |              |                        |                        | .40            |                              |                               |                               |
|                       |             | Length of time in district | .30               |                        |              |                        |                        |                |                              | .33                           |                               |
|                       |             | Length of time in position |                   |                        |              |                        |                        |                |                              |                               |                               |

p < .05.

Table 6.--Correlations of leadership with influence and job satisfaction matrix for director  
(N = 31).

|                       |                      | DEPENDENT VARIABLES      |                   |                        |              |                        |                    |                        |                              |                               |                               |                        |     |
|-----------------------|----------------------|--------------------------|-------------------|------------------------|--------------|------------------------|--------------------|------------------------|------------------------------|-------------------------------|-------------------------------|------------------------|-----|
|                       |                      | Influence                |                   |                        |              |                        |                    | Job Satisfaction (JDI) |                              |                               |                               |                        |     |
|                       |                      | General influence        | Curriculum change | Selection of personnel | New programs | Promotion & job change | Policies formation | Work--your job         | People on ISD staff--sp. ed. | Characteristic of supervision | Pay--details of remuneration. | Nature of promot. opp. |     |
| INDEPENDENT VARIABLES | Leadership           | Representation           | .40               |                        |              |                        |                    | .43                    |                              | .40                           | .36                           |                        |     |
|                       |                      | Demand reconciliation    |                   |                        |              |                        |                    |                        |                              |                               | .39                           |                        |     |
|                       |                      | Tolerance of uncertainty |                   |                        |              |                        | .38                |                        |                              |                               | .33                           |                        |     |
|                       |                      | Persuasiveness           | .35               |                        | .36          | .30                    |                    | .36                    |                              | .35                           | .40                           |                        |     |
|                       |                      | Initiation of structure  | .33               |                        | .39          |                        |                    |                        |                              | .35                           | .38                           | .32                    |     |
|                       |                      | Tolerance of freedom     | .50               | .40                    | .56          | .46                    | .45                | .52                    |                              | .50                           | .60                           | .35                    |     |
|                       |                      | Role assumption          |                   |                        |              |                        |                    |                        |                              | .36                           | .42                           | .34                    | .37 |
|                       |                      | Consideration            | .50               |                        | .49          | .43                    | .34                | .52                    | .31                          | .64                           | .67                           | .40                    |     |
|                       |                      | Production emphasis      | .32               |                        |              |                        |                    | .31                    |                              | .37                           | .44                           | .46                    |     |
|                       |                      | Predictive accuracy      | .40               |                        | .44          | .32                    |                    | .38                    |                              | .30                           |                               |                        |     |
|                       |                      | Integration              | .49               |                        | .50          | .42                    | .37                | .54                    |                              | .43                           | .53                           |                        |     |
|                       | Superior orientation |                          |                   | .31                    |              |                        |                    | .36                    | .52                          | .45                           |                               | .37                    |     |

p < .05.



(influence). Seven leadership measures for the position of director correlated with selection of personnel (influence) which had not correlated in Table 4. Four leadership variables correlated with influence variables of new programs, promotion, and job change.

Tolerance of freedom (leadership) correlated with all the influence measures as perceived by the director. Leadership variables of consideration and integration correlated with the influence measures of general influence, selection of personnel, new programs, promotion and job change, and policies formation.

Persuasiveness and predictive accuracy, leadership variables, correlated with general influence, selection of personnel, new programs, and policies formation.

The job satisfaction measures correlated with leadership on the position of director, with three satisfaction measures having the greatest number of correlations. Characteristics of supervision correlated with all leadership variables except predictive accuracy. The variable people on ISD staff correlated with ten leadership variables. Pay, a satisfaction variable that had not correlated in the original matrix in Table 4, now correlated with five leadership variables.

The leadership variables of consideration and superior orientation correlated with most job satisfaction measures (four out of five) on the position of director.

### Correlation Analysis for Supervisors

Dependent variables and demographic information.--Correlations with demographic information were few and isolated and did not overlap for the position of supervisor. Demographic information correlated with influence and job satisfaction measures for the position of supervisor as listed in Table 7. The variables race and sex correlated with the influence measure, influence on establishing new policies. Sex also correlated with influence in selection of personnel. Age correlated with satisfaction with work and satisfaction with people.

Dependent variables and leadership.--Correlations between leadership and influence and job satisfaction for the position of supervisor are reported in Table 8. It must be remembered that the supervisor reported leadership scores on the director. The influence measure which correlated most closely with leadership variables was influence on establishing new policies. It correlated with eight leadership variables. General influence and influence in establishing new programs correlated with the same seven leadership variables. Initiation of structure, consideration, and integration leadership variables correlated with all the six influence measures for supervisors. Persuasiveness (leadership) correlated with all influence measures except promotion and job change for the position of supervisor. Four leadership variables--demand reconciliation, tolerance of freedom, role assumption, and production emphasis--did not correlate with any of the influence measures. The measure work satisfaction correlated with nine leadership variables, as did the measure

Table 7.--Correlation of demographic information with influence and job satisfaction matrix for supervisor (N = 82).

|                       |             | DEPENDENT VARIABLES        |                   |                        |              |                        |                    |                        |                              |                               |                               |
|-----------------------|-------------|----------------------------|-------------------|------------------------|--------------|------------------------|--------------------|------------------------|------------------------------|-------------------------------|-------------------------------|
|                       |             | Influence                  |                   |                        |              |                        |                    | Job Satisfaction (JDI) |                              |                               |                               |
|                       |             | General influence          | Curriculum change | Selection of personnel | New programs | Promotion & job change | Policies formation | Work--your job         | People on ISD staff--sp. ed. | Characteristic of supervision | Pay--details of remuneration. |
| INDEPENDENT VARIABLES | Demographic | Position in district       |                   |                        |              |                        |                    |                        |                              |                               |                               |
|                       |             | Number of staff            |                   |                        |              |                        |                    |                        |                              |                               |                               |
|                       |             | Age                        |                   |                        |              |                        |                    | .28                    | .24                          |                               |                               |
|                       |             | Race                       |                   |                        |              |                        | .27                |                        |                              |                               |                               |
|                       |             | Sex                        |                   | .20                    |              |                        |                    |                        |                              |                               |                               |
|                       |             | Length of time in district |                   |                        |              |                        |                    |                        |                              |                               |                               |
|                       |             | Length of time in position |                   |                        |              |                        |                    |                        |                              |                               |                               |

p < .05.

Table 8.--Correlation of leadership with influence and job satisfaction matrix for supervisor  
(N = 82).

|                       |                      | DEPENDENT VARIABLES      |                      |                           |              |                           |                       |                        |                                 |                                  |                             |                           |     |
|-----------------------|----------------------|--------------------------|----------------------|---------------------------|--------------|---------------------------|-----------------------|------------------------|---------------------------------|----------------------------------|-----------------------------|---------------------------|-----|
|                       |                      | Influence                |                      |                           |              |                           |                       | Job Satisfaction (JDI) |                                 |                                  |                             |                           |     |
|                       |                      | General<br>influence     | Curriculum<br>change | Selection of<br>personnel | New programs | Promotion &<br>job change | Policies<br>formation | Work--your<br>job      | People on ISD<br>staff--sp. ed. | Characteristic<br>of supervision | Pay--details<br>of remuner. | Nature of<br>promot. opp. |     |
| INDEPENDENT VARIABLES | Leadership           | Representation           |                      |                           |              |                           |                       | .20                    | .22                             | .26                              | .28                         | .25                       | .27 |
|                       |                      | Demand reconciliation    |                      |                           |              |                           |                       |                        | .28                             | .22                              | .20                         |                           |     |
|                       |                      | Tolerance of uncertainty | .38                  | .33                       |              | .36                       |                       | .29                    |                                 |                                  | .39                         |                           | .22 |
|                       |                      | Persuasiveness           | .26                  | .22                       | .23          | .25                       |                       | .29                    | .35                             | .24                              | .26                         |                           | .25 |
|                       |                      | Initiation of structure  | .34                  | .33                       | .22          | .38                       | .21                   | .33                    | .30                             | .30                              | .39                         |                           | .36 |
|                       |                      | Tolerance of freedom     |                      |                           |              |                           |                       |                        |                                 |                                  |                             |                           | .22 |
|                       |                      | Role assumption          |                      |                           |              |                           |                       |                        | .29                             | .25                              |                             |                           |     |
|                       |                      | Consideration            | .58                  | .48                       | .43          | .59                       | .34                   | .53                    | .20                             | .23                              | .51                         |                           | .44 |
|                       |                      | Production emphasis      |                      |                           |              |                           |                       |                        |                                 |                                  |                             |                           |     |
|                       |                      | Predictive accuracy      | .30                  |                           |              | .31                       |                       | .24                    | .30                             |                                  | .28                         |                           | .30 |
|                       |                      | Integration              | .40                  | .29                       | .30          | .38                       | .27                   | .38                    | .20                             | .26                              | .39                         |                           | .47 |
|                       | Superior orientation | .33                      |                      |                           | .31          | .23                       | .34                   | .26                    |                                 | .24                              |                             |                           |     |

p < .05.

characteristics of supervision. The nature of promotional opportunities variable correlated with eight leadership variables. The leadership variable of representation correlated with all the satisfaction variables for supervisors. Persuasiveness, initiation of structure, consideration, and integration all correlated with the same satisfaction variables (work, people, characteristics of supervision, and nature of promotional opportunities) for supervisors. Production emphasis (leadership) did not correlate with any satisfaction measures.

#### Correlation Analysis for Staff

Dependent variables and demographic information.--Demographic information did not correlate with measures of influence and job satisfaction for the position of staff.

Dependent variables and leadership.--The correlations for the dependent variables and leadership on the position of staff are shown in Table 9. Seven leadership variables correlated with general influence. The influence measure of policy formation correlated with three leadership variables. The leadership variable of superior orientation correlated with four out of six influence measures.

Leadership correlated with the satisfaction measures of work, people, and characteristics of supervision. Characteristics of supervision correlated with 11 out of 12 leadership variables. Satisfaction with work and people correlated with eight leadership variables. Satisfaction with pay did not correlate with any leadership variable. Leadership variables of demand reconciliation, persuasiveness, consideration, and integration correlated with the satisfaction

Table 9.--Correlations of leadership with influence and job satisfaction matrix for staff (N = 480).

|                       |            | DEPENDENT VARIABLES      |                   |                        |              |                        |                    |                        |                              |                               |                          |
|-----------------------|------------|--------------------------|-------------------|------------------------|--------------|------------------------|--------------------|------------------------|------------------------------|-------------------------------|--------------------------|
|                       |            | Influence                |                   |                        |              |                        |                    | Job Satisfaction (JDI) |                              |                               |                          |
|                       |            | General influence        | Curriculum change | Selection of personnel | New programs | Promotion & job change | Policies formation | Work--your job         | People on ISD staff--sp. ed. | Characteristic of supervision | Pay--details of remuner. |
| INDEPENDENT VARIABLES | Leadership | Representation           |                   |                        |              |                        |                    | .22                    | .22                          | .38                           |                          |
|                       |            | Demand reconciliation    | .00               |                        |              |                        |                    | .24                    | .23                          | .54                           | .24                      |
|                       |            | Tolerance of uncertainty |                   |                        |              |                        |                    | .26                    |                              | .48                           |                          |
|                       |            | Persuasiveness           | .24               |                        |              |                        |                    | .27                    | .29                          | .53                           | .23                      |
|                       |            | Initiation of structure  | .22               |                        |              |                        |                    |                        |                              | .39                           |                          |
|                       |            | Tolerance of freedom     |                   |                        |              |                        |                    | .28                    | .24                          | .47                           |                          |
|                       |            | Role assumption          | .21               |                        |              |                        |                    |                        | .23                          | .43                           |                          |
|                       |            | Consideration            | .21               |                        |              |                        |                    | .31                    | .32                          | .69                           | .23                      |
|                       |            | Production emphasis      | .20               |                        |              |                        | .20                |                        |                              |                               |                          |
|                       |            | Predictive accuracy      |                   |                        |              |                        |                    | .27                    | .27                          | .54                           |                          |
|                       |            | Integration              | .26               | .22                    |              | .21                    | .23                | .29                    | .35                          | .61                           | .30                      |
|                       |            | Superior orientation     | .25               |                        |              | .22                    | .22                | .26                    |                              | .30                           |                          |

p < .05.

variables of work, people, characteristics of supervision, and nature of promotional opportunities.

Comparison of Directors,  
Supervisors, and Staff

Across the three positions of director, supervisor, and staff, correlations were similar for the satisfaction measure of characteristics of supervision with eight leadership variables and satisfaction with people on four leadership variables. The leadership variables of persuasiveness, consideration, and integration correlated with the highest number of satisfaction measures across all positions.

General influence had the highest composite score on the four leadership variables.

Comparison of directors and supervisors.--When the directors and supervisors were compared, the measures of influence in selection of personnel and influence in establishing policies correlated with leadership variables of persuasiveness and consideration. Other leadership variables correlated with these variables singly.

In the analysis of leadership and job satisfaction of the director and supervisor, the variable people in the ISD correlated with initiation of structure, while the variable work correlated with superior orientation.

Comparison of directors and staff.--When the two groups of directors and staff were compared, the influence variables of general influence and influence in establishing policy were related to production emphasis (leadership). Satisfaction measures of people in

the ISD and characteristics of supervision were correlated with tolerance of freedom and predictive accuracy.

Comparison of supervisors and staff.--The leadership variable of superior orientation correlated with several influence variables: general influence, new programs, promotions, and policy.

In a comparison of satisfaction measures and leadership, satisfaction with work was correlated with six leadership variables.

### Multiple Regression Analyses

To determine how well job satisfaction and/or influence could be predicted by knowledge of leadership style, multiple regression analyses were computed using key variables. Variables which correlated with a  $(r)$  = magnitude of .20 or above at a  $< .05$  significance level as shown in Table 4 were entered in a multiple regression analysis. All the leadership subscales of the LBDQ (12) were entered as independent variables. All six dependent variables of influence were entered. Five satisfaction variables were entered with the exception of satisfaction with pay.

### Leadership With General Influence

Summary Table 10 shows the analysis of the dependent variable general influence. Significant leadership variables were integration and superior orientation. Integration accounted for approximately 9.41% of the variance on the variable, and superior orientation accounted for 1.15%. All ten leadership variables summarized in the regression accounted for 13.92% of the variance for the variable of general influence.



Table 10.--Summary results of regression analysis of leadership variable used to predict dependent variable of general influence.

| Independent Variables    | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|--------------------------|-----------|--------|----------------|-----------------------|-----------|
| Integration*             | .3067680  | .30677 | .09411         | .09411                | 63.16066  |
| Superior orientation*    | .1626106  | .33853 | .11460         | .02050                | 39.28356  |
| Tolerance of uncertainty | -.0840173 | .34575 | .11954         | .00494                | 27.42573  |
| Consideration            | .1926629  | .36395 | .13246         | .01292                | 23.09381  |
| Production emphasis      | .0592684  | .36756 | .13510         | .00264                | 18.86919  |
| Role assumption          | -.0552503 | .36972 | .13670         | .00160                | 15.91311  |
| Initiation of structure  | .0453203  | .37081 | .13750         | .00081                | 13.71035  |
| Tolerance of freedom     | .0406361  | .37183 | .13826         | .00076                | 12.05314  |
| Reconciliation           |           | .37283 | .13900         | .00074                | 10.76271  |
| Representation           | -.0461512 | .37313 | .13923         | .00023                | 9.68857   |
| (constant)               | 3.5963250 |        |                |                       |           |

\*Significance

### Leadership With Influence in Curriculum

Summary data are shown in Table 11. The significant variables, integration and production emphasis, accounted for 6.66% and 1.55%, respectively, of the variance. All ten leadership variables accounted for 11.04% of the variance of the change on the variable influence in curriculum.

### Leadership With Influence in Selection of Personnel

Integration was the significant variable accounting for approximately 5.10% of the variance, as shown in Table 12. All ten leadership variables accounted for 7.99% of the variance in influence in selection of personnel.

### Leadership With Influence in Establishing New Programs

Summary statistics are shown in Table 13. The significant variables for this analysis were integration, superior orientation, tolerance of uncertainty, and consideration. Integration accounted for 7.20% of the variance, superior orientation 1.87%, tolerance of uncertainty 1.13%, and consideration 2.20%. Total variance explained by the ten leadership variables was 13.23%.

### Leadership With Influence on Promotions in ISD

Three leadership variables were significant in this analysis, as shown in Table 14. Superior orientation accounted for approximately 4.73% of the variance, integration 1.46%, and tolerance of

Table 11.--Summary results of regression analysis of leadership variable used to predict dependent variable of influence in curriculum.

| Independent Variables    | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|--------------------------|-----------|--------|----------------|-----------------------|-----------|
| Integration*             | .2580499  | .25805 | .06659         | .06659                | 43.37488  |
| Production emphasis*     | .1331807  | .28648 | .08207         | .01548                | 27.13530  |
| Initiation of structure  | .0986144  | .29454 | .08676         | .00469                | 19.18967  |
| Persuasive-ness          | -.1422024 | .03950 | .09579         | .00904                | 16.02347  |
| Consideration            | .1036201  | .31624 | .10001         | .00422                | 13.42383  |
| Tolerance of uncertainty | -.1111695 | .32675 | .10676         | .00675                | 12.01205  |
| Reconciliation           | -.0648674 | .32904 | .10827         | .00150                | 10.44129  |
| Superior orientation     | .0479054  | .33110 | .10963         | .00136                | 9.24994   |
| Tolerance of freedom     | .0395480  | .33215 | .11033         | .00070                | 8.26719   |
| Representation           | .0131882  | .33231 | .11043         | .00011                | 7.43612   |

(Constant) 3.0882761

\*Significance

Table 12.--Summary results of regression analysis of leadership variable used to predict dependent variable of influence in selection of personnel.

| Independent Variables    | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|--------------------------|-----------|--------|----------------|-----------------------|-----------|
| Integration*             | .2257769  | .22578 | .05098         | .05098                | 32.65766  |
| Superior orientation     | .0932833  | .24025 | .05772         | .00674                | 18.59105  |
| Tolerance of uncertainty | -.1165928 | .25929 | .06723         | .00951                | 14.44962  |
| Consideration            | .1324992  | .27082 | .07334         | .00611                | 11.97103  |
| Reconciliation           | -.0717129 | .27489 | .07556         | .00222                | 9.87421   |
| Persuasiveness           | .0688323  | .27808 | .07733         | .00177                | 8.42316   |
| Predictive accuracy      | -.0568710 | .27999 | .07839         | .00106                | 7.31516   |
| Initiation of structure  | .0542725  | .28225 | .07966         | .00127                | 6.50280   |
| Role assumption          | -.2012330 | .28252 | .07982         | .00015                | 5.78265   |
| Tolerance of freedom     | .0164569  | .28274 | .07994         | .00012                | 5.20445   |

(constant) 5.1724775

\*Significance

Table 13.--Summary results of regression analysis of leadership variable used to predict dependent variable of influence in establishing new programs.

| Independent Variables    | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|--------------------------|-----------|--------|----------------|-----------------------|-----------|
| Integration*             | .2683908  | .26839 | .07203         | .07203                | 47.19615  |
| Superior orientation*    | .1551427  | .30115 | .09069         | .01866                | 30.26935  |
| Tolerance of uncertainty | -.1267813 | .31927 | .10194         | .01125                | 22.92829  |
| Consideration*           | .2412168  | .35200 | .12390         | .29170                | 21.39082  |
| Reconciliation           | -.0875913 | .35668 | .12722         | .00311                | 17.60786  |
| Representation           | -.9479889 | .35885 | .12878         | .00156                | 14.85502  |
| Persuasiveness           | .0689201  | .36118 | .13045         | .00167                | 12.90185  |
| Production emphasis      | .0282983  | .36195 | .13101         | .00056                | 11.32601  |
| Tolerance of freedom     | .0393132  | .36291 | .13170         | .00069                | 10.11178  |
| Role assumption          | -.0374790 | .36366 | .13225         | .00055                | 9.12915   |

(constant) 4.7552704

\*Significance

Table 14.--Summary results of regression analysis of leadership variable used to predict dependent variable of influence on promotion in ISD.

| Independent Variables     | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|---------------------------|-----------|--------|----------------|-----------------------|-----------|
| Superior orientation*     | .2175588  | .21756 | .04733         | .04733                | 30.20755  |
| Integration*              | .1373587  | .24891 | .96196         | .91462                | 20.04550  |
| Tolerance of uncertainty* | -.1566003 | .28127 | .07911         | .01716                | 17.35419  |
| Tolerance of freedom      | -.0638035 | .28564 | .08159         | .00247                | 13.43647  |
| Reconciliation            | -.0592754 | .28830 | .08312         | .00153                | 10.95107  |
| Role assumption           | .0540578  | .29054 | .08441         | .00129                | 9.26540   |
| Consideration             | .0684255  | .29268 | .08566         | .00125                | 8.05678   |
| Persuasiveness            | .0177450  | .29286 | .08576         | .00011                | 7.04744   |
| Predictive accuracy       | -.0218403 | .29312 | .08592         | .00015                | 6.26625   |
| Production emphasis       | -.9125583 | .29329 | .08602         | .00010                | 5.63757   |

(constant) 5.0243795

\*Significance

uncertainty 1.71%. Total variance accounted for by leadership variables is 8.60%.

#### Leadership With Influence on Establishing New Policies

As shown in Table 15, integration, superior orientation, and reconciliation of uncertainty were significant, accounting for 7.45%, 2.74%, and 1.31%, respectively, of the variance. The ten leadership variables explained 13.28% of the variance.

#### Leadership With Satisfaction With the Job

Table 16 lists the summary statistics for this analysis. Consideration and persuasiveness were the significant variables. Consideration accounted for 8.23% of the variance and persuasiveness 1.62% of the total variance of 11.73%.

#### Leadership With Satisfaction With People on ISD Staff

Summary statistics are listed in Table 17. Integration was the only significant variable and accounted for approximately 11.20% of the variance. Total variance was 13.44%.

#### Leadership With Satisfaction With Supervision

Two significant variables resulted from this analysis, as explained in Table 18. Consideration accounted for 44.15% of the variance, and integration 1.74%. The total variance explained was 47.06%.

Table 15.--Summary results of regression analysis of leadership variable used to predict dependent variable of influence on establishing new policies.

| Independent Variables    | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|--------------------------|-----------|--------|----------------|-----------------------|-----------|
| Integration*             | .2783582  | .27836 | .07748         | .07748                | 51.06663  |
| Superior orientation*    | .1881341  | .32391 | .10492         | .02743                | 35.57472  |
| Reconciliation*          | -.1562419 | .34364 | .11809         | .01317                | 27.04833  |
| Tolerance of uncertainty | -.0815305 | .34910 | .12187         | .00378                | 20.99151  |
| Consideration            | .1539155  | .36054 | .12999         | .00812                | 18.04865  |
| Predictive accuracy      | .0654743  | .36263 | .13150         | .00151                | 15.21641  |
| Production emphasis      | .0362488  | .36391 | .13243         | .00093                | 13.12715  |
| Representation           | .9164882  | .36414 | .13260         | .00017                | 11.48408  |
| Tolerance of freedom     | -.0157459 | .36439 | .13271         | .00011                | 10.20098  |
| Persuasiveness           | -.0129594 | .36437 | .13276         | .00005                | 9.16986   |

(constant) 3.7375458

\*Significance



Table 16.--Summary results of regression analysis of leadership variable used to predict dependent variable of satisfaction with job.

| Independent Variables   | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|-------------------------|-----------|--------|----------------|-----------------------|-----------|
| Consideration*          | .2868732  | .28687 | .08230         | .08230                | 54.52315  |
| Persuasiveness*         | .1630426  | .31391 | .09854         | .01624                | 33.17501  |
| Tolerance of freedom    | .1187360  | .32497 | .10561         | .00707                | 23.85149  |
| Integration             | .1091095  | .33167 | .11000         | .00440                | 18.69435  |
| Representation          | .0574502  | .33513 | .11231         | .00231                | 15.28370  |
| Role assumption         | -.0523292 | .33697 | .11355         | .00124                | 12.87357  |
| Production emphasis     | .0457342  | .33916 | .11503         | .00148                | 11.17851  |
| Superior orientation    | .0387023  | .34045 | .11591         | .00088                | 9.84932   |
| Predictive accuracy     | .0478764  | .34166 | .11673         | .00082                | 8.81037   |
| Initiation of structure | .0405833  | .34254 | .11733         | .00060                | 7.96258   |

(constant) 8.0214353

\*Significance

Table 17.--Summary results of regression analysis of leadership variable used to predict dependent variable of satisfaction with people on ISD staff--special education.

| Independent Variables    | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|--------------------------|-----------|--------|----------------|-----------------------|-----------|
| Integration*             | .3345982  | .33460 | .11196         | .11196                | 76.65071  |
| Tolerance of freedom     | .0912223  | .34396 | .11831         | .00635                | 40.72345  |
| Production emphasis      | .0735769  | .35042 | .12279         | .00449                | 28.27660  |
| Tolerance of uncertainty | -.0759816 | .35510 | .12609         | .00330                | 21.82349  |
| Consideration            | .109857   | .35966 | .12936         | .00326                | 17.94825  |
| Representation           | .0639016  | .36385 | .13239         | .00303                | 15.33546  |
| Superior orientation     | -.0329227 | .36474 | .13304         | .00065                | 13.19695  |
| Persuasiveness           | .043874   | .36578 | .13379         | .00076                | 11.60384  |
| Reconciliation           | -.0301363 | .36622 | .13412         | .00032                | 10.32624  |
| Predictive accuracy      | .0324989  | .36666 | .13444         | .00032                | 9.30346   |

(constant) 7.5481382

\*Significance

Table 18.--Summary results of regression analysis of leadership variable used to predict dependent variable of satisfaction with supervision.

| Independent Variables   | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|-------------------------|-----------|--------|----------------|-----------------------|-----------|
| Consideration*          | .6644680  | .66447 | .44152         | .44152                | 480.66485 |
| Integration*            | .1984617  | .67748 | .45897         | .01746                | 257.47103 |
| Representation          | .0961747  | .68282 | .46624         | .00727                | 176.45077 |
| Predictive accuracy     | .0704776  | .68453 | .46858         | .00234                | 133.36493 |
| Initiation of structure | -.0402801 | .68509 | .46935         | .00077                | 106.84476 |
| Superior orientation    | -.0284935 | .68544 | .46983         | .00048                | 89.06097  |
| Persuasiveness          | .0294779  | .68567 | .47014         | .00031                | 76.30621  |
| Role assumption         | -.0273197 | .68589 | .47044         | .00030                | 66.73830  |
| Reconciliation          | .0175382  | .68596 | .47054         | .00010                | 59.24779  |
| Tolerance of freedom    | -.0143872 | .68603 | .47064         | .00010                | 53.25515  |

(constant) -3.7108810

\*Significance

### Leadership With Promotional Opportunities

Only nine leadership variables were manipulated in this analysis, as shown in Table 19. Integration was the significant variable explaining 11.94% of the variance. Total variance accounted for by nine variables was 12.51%.

### Summary

Consideration accounted for 44% of the variance for the variable satisfaction with characteristics of supervision and 8% of the variance in satisfaction with work. Integration accounted for the significant variance in all the influence measures and two satisfaction measures, people and nature of promotion. Superior orientation accounted for less than 5% of the variance in four out of six influence variables and no satisfaction variables.

### Analysis of Variance

To see if differences existed between the three levels of positions surveyed, one-way analyses were performed on the dependent variables of influence (six measures) and job satisfaction (five measures). Results are reported at the .05 level in Tables 20 to 30.

### General Influence by Position in ISD

In Table 20 the analysis of variance accounts for approximately 3.95% of the variance between groups. The group means for the position of director and supervisor are similar.

Table 19.--Summary results of regression analysis of leadership variable used to predict dependent variable of satisfaction with promotional opportunities.

| Independent Variables    | B         | R      | R <sup>2</sup> | R <sup>2</sup> Change | Overall F |
|--------------------------|-----------|--------|----------------|-----------------------|-----------|
| Integration*             | .3455003  | .34550 | .11937         | .11937                | 82.41517  |
| Consideration            | .0688467  | .34853 | .12147         | .00210                | 41.96389  |
| Production emphasis      | .0445480  | .35095 | .12317         | .00169                | 28.37426  |
| Initiation of structure  | -.0423347 | .35216 | .12402         | .00085                | 21.41300  |
| Tolerance of uncertainty | -.0333793 | .35304 | .12464         | .00062                | 17.20021  |
| Representation           | -.0173250 | .35335 | .12486         | .00022                | 14.33860  |
| Persuasiveness           | .0173250  | .35352 | .12497         | .00012                | 12.28287  |
| Tolerance of freedom     | -.0120671 | .35361 | .12504         | .00006                | 10.73603  |
| Role assumption          | -.0100423 | .35367 | .12508         | .00004                | 9.53091   |

F-level or tolerance level insufficient for future computation

(constant) -1.6075134

\*Significance

Table 20.--One-way analysis of variance: means for general influence by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F       | Signif. of F | ETA    |
|--------------------|----------------|------|-------------|---------|--------------|--------|
| Between groups     | 136.5597       | 2    | 68.2799     | 12.1635 | .0000        | .03959 |
| Within groups      | 3311.9698      | 590  | 5.6135      |         |              |        |
| Total              | 3448.5295      | 592  |             |         |              |        |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 9.9032             |
| Spec. Ed. Supervisor | 9.6098             |
| Spec. Ed. Staff      | 8.4771             |

Influence in Curriculum  
by Position in ISD

In Table 21 the analysis of variance accounts for approximately 7.67% of the variance between groups. Staff mean is dissimilar from other groups, indicating staff were not perceived as having as much influence in curriculum as other two groups.

Influence in Selection of  
Personnel by Position in ISD

Influence in selection of personnel with the position of respondent accounted for approximately 7.22% of the variance between groups, as shown in Table 22. Directors are perceived as having more influence in selection of personnel for the ISD.

Table 21.--One-way analysis of variance: means for influence in curriculum by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F       | Signif. of F | ETA    |
|--------------------|----------------|------|-------------|---------|--------------|--------|
| Between groups     | 309.1556       | 2    | 154.5778    | 24.4888 | .0000        | .07664 |
| Within groups      | 3724.1935      | 590  | 6.3122      |         |              |        |
| Total              | 4033.3491      | 592  |             |         |              |        |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 9.4484             |
| Spec. Ed. Supervisor | 9.1341             |
| Spec. Ed. Staff      | 7.4208             |

Table 22.--One-way analysis of variance: means for influence in selection of personnel by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F       | Signif. of F | ETA    |
|--------------------|----------------|------|-------------|---------|--------------|--------|
| Between groups     | 126.6277       | 2    | 63.3138     | 12.9861 | .0000        | .04126 |
| Within groups      | 2876.5561      | 590  | 4.8755      |         |              |        |
| Total              | 3003.1838      | 592  |             |         |              |        |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 9.1935             |
| Spec. Ed. Supervisor | 8.9024             |
| Spec. Ed. Staff      | 7.8146             |

Influence in Establishing New  
Programs by Position in ISD

The analysis shown in Table 23 indicates a variance of approximately 5.16% between groups. Directors and supervisors are perceived to have more influence in the development of new programs than are staff.

Table 23.--One-way analysis of variance: means for influence in establishing new programs by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F       | Signif. of F | ETA    |
|--------------------|----------------|------|-------------|---------|--------------|--------|
| Between groups     | 168.2199       | 2    | 84.1099     | 16.0531 | .0000        | .05160 |
| Within groups      | 3091.2877      | 590  | 5.2395      |         |              |        |
| Total              | 3259.5076      | 592  |             |         |              |        |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 9.9032             |
| Spec. Ed. Supervisor | 9.6951             |
| Spec. Ed. Staff      | 8.4000             |

Influence on Promotions in ISD  
by Position in ISD

Results of the analysis of variance accounted for approximately 2.00% of the variance between groups, as shown in Table 24. Supervisors are seen as having more influence on promotion of personnel than either staff or directors.



Table 24.--One-way analysis of variance: means for influence on promotion in ISD by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F      | Signif. of F | ETA    |
|--------------------|----------------|------|-------------|--------|--------------|--------|
| Between groups     | 80.7694        | 2    | 40.3847     | 7.5170 | .0006        | .02484 |
| Within groups      | 3169.7500      | 590  | 5.3725      |        |              |        |
| Total              | 3250.5194      | 592  |             |        |              |        |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 7.6129             |
| Spec. Ed. Supervisor | 8.0610             |
| Spec. Ed. Staff      | 7.0250             |

Influence in Establishing New Policies by Position in ISD

The analysis shown in Table 25 accounts for approximately 3.5% of the variance. Directors and supervisors are perceived as having more influence on development of new policy in the ISD than are staff.

Satisfaction With Job (Work) by Position in ISD

As shown in Table 26, satisfaction with the job as analyzed by position held accounted for only approximately 1.26% of the variance. Directors are perceived to be most satisfied of the three subgroups.

Table 25.--One-way analysis of variance: means for influence in establishing new policies by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F       | Signif. of F | ETA    |
|--------------------|----------------|------|-------------|---------|--------------|--------|
| Between groups     | 110.6264       | 2    | 53.3132     | 10.9292 | .0000        | .03572 |
| Within groups      | 2986.0279      | 590  | 5.0611      |         |              |        |
| Total              | 3096.6543      | 592  |             |         |              |        |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 8.8065             |
| Spec. Ed. Supervisor | 8.7683             |
| Spec. Ed. Staff      | 7.6792             |

Table 26.--One-way analysis of variance: means for satisfaction with job by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F      | Signif. of F | ETA    |
|--------------------|----------------|------|-------------|--------|--------------|--------|
| Between groups     | 135.6680       | 2    | 67.8340     | 3.7219 | .0248        | .01261 |
| Within groups      | 10758.0740     | 590  | 18.2255     |        |              |        |
| Total              | 10888.7420     | 592  |             |        |              |        |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 18.7097            |
| Spec. Ed. Supervisor | 18.1585            |
| Spec. Ed. Staff      | 18.1229            |

Satisfaction With ISD  
Staff by Position

As shown in Table 27, this analysis also accounted for approximately 1.20% of the variance between groups. Directors are perceived as most satisfied.

Table 27.--One-way analysis of variance: means for satisfaction with ISD staff by position.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F      | Signif. of F | ETA    |
|--------------------|----------------|------|-------------|--------|--------------|--------|
| Between groups     | 101.7491       | 2    | 50.8745     | 3.5688 | .0288        | .01195 |
| Within groups      | 8410.5610      | 590  | 14.2552     |        |              |        |
| Total              | 8512.3103      | 592  |             |        |              |        |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 16.9677            |
| Spec. Ed. Supervisor | 15.1098            |
| Spec. Ed. Staff      | 15.1062            |

Satisfaction With Supervision  
by Position in ISD

Directors are perceived as most satisfied with supervision, as shown in Table 28. Variance between groups in the analysis of variance is approximately 2.67%.

Table 28.--One-way analysis of variance: means for satisfaction with supervision by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F      | Signif. of F | ETA   |
|--------------------|----------------|------|-------------|--------|--------------|-------|
| Between groups     | 660.7953       | 2    | 330.3977    | 6.2273 | .0021        | .0267 |
| Within groups      | 31303.3092     | 590  | 53.0565     |        |              |       |
| Total              | 31964.1046     | 592  |             |        |              |       |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 25.5161            |
| Spec. Ed. Supervisor | 22.7073            |
| Spec. Ed. Staff      | 21.1792            |

Satisfaction With Pay by  
Position in ISD

This analysis, shown in Table 29, accounted for approximately 2.44% of the variance. Directors were perceived as most satisfied, supervisors second, and staff third.

Satisfaction With Promotional  
Opportunities by Position in ISD

Satisfaction with promotional opportunities accounted for approximately 10.06% of the variance between groups, as seen in Table 30. Directors, supervisors, and staff performed as expected, in descending order.

Table 29.--One-way analysis of variance: means for satisfaction with pay by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F      | Signif. of F | ETA    |
|--------------------|----------------|------|-------------|--------|--------------|--------|
| Between groups     | 92.5301        | 2    | 46.2650     | 7.4045 | .0007        | .02448 |
| Within groups      | 3686.4548      | 590  | 6.2482      |        |              |        |
| Total              | 3778.9848      | 592  |             |        |              |        |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 5.1935             |
| Spec. Ed. Supervisor | 4.6341             |
| Spec. Ed. Staff      | 3.8208             |

Table 30.--One-way analysis of variance: means for satisfaction with promotional opportunities by position in ISD.

| Source of Variance | Sum of Squares | d.f. | Mean Square | F       | Signif. of F | ETA   |
|--------------------|----------------|------|-------------|---------|--------------|-------|
| Between groups     | 519.3294       | 2    | 259.6647    | 33.0308 | .0000        | .1006 |
| Within groups      | 4638.1579      | 590  | 7.8613      |         |              |       |
| Total              | 5157.4874      | 592  |             |         |              |       |

| <u>Position</u>      | <u>Group Means</u> |
|----------------------|--------------------|
| Spec. Ed. Director   | 5.4516             |
| Spec. Ed. Supervisor | 4.3780             |
| Spec. Ed. Staff      | 2.3500             |

### Summary

The Anovas analyzing differences between the three positions--director, supervisor, and staff--on the dependent variables did not yield results indicating great disparity between groups. Satisfaction with promotional opportunities accounted for 10.06% of the variance between groups. Analysis on the other measures explained less than 8% variance between groups.

### Additional Analyses

To see if differences existed between the categories of some of the demographic variables and the dependent variables of influence and job satisfaction, one-way analyses of variance were performed. Demographic variables used for analysis were age (seven categories), sex (two categories), race (five categories), years in ISD (two categories), and years in position in ISD (two categories). Four analyses were significant at the  $< .05$  level of confidence. Years worked in ISD was significant with both influence on promotion in the ISD and satisfaction with pay. Age of respondents was significant with satisfaction with work and satisfaction with people on ISD staff.

## CHAPTER V

### DISCUSSION AND CONCLUSIONS

#### Summary

The objectives of this research were: (1) to conduct an exploratory investigation into the relationships of the independent variables of leadership and demographic information with the dependent variables of job satisfaction and influence in intermediate school district special education organizations; (2) to explore the possibility of a prediction model for the dependent variables. The instruments used were the Leader Behavior Description Questionnaire (LBDQ), demographic information, the Job Description Index (JDI), and questions on influence taken from the Control Graph by Tannenbaum. This study was considered exploratory as neither research nor theory could be found which provides specific hypotheses concerning these interactions. The population chosen for study included special education directors, supervisors, and staff in intermediate school districts in Michigan; 49 of the existing 58 intermediate school districts' special education units were surveyed. An n of 610 survey responses were analyzed using correlation, regression, and one-way analysis of variance techniques.

## Findings

### Correlation of the Variables Main Effects

The correlational method demonstrates relationships between the variables, i.e., job satisfaction and consideration are positive correlates, but does not permit definitive statements regarding the respondents' perceptions of the variables, nor can causal relationships be inferred. The previously stated demographic information does not correlate significantly with any of the influence and job satisfaction measures.

The dependent variable of satisfaction with pay does not correlate with either demographics or leadership. Possible explanations for this may be contractual pay agreements common in public education collective bargaining provide for multi-year contracts and the pay range for jobs in education is narrow. Strauss (1964) presented the view that with increasing education the relative importance of financial rewards goes down while the challenge goes up. Another consideration is a statistical one--the revised Job Description Index scale for pay was reduced from six items to three positive statements used for the total scale.

Expectedly, the job satisfaction measures of work, people, and characteristics of supervision were the variables which correlated most significantly with the leadership variables. An unexpected correlation was satisfaction and nature of promotional opportunities. School systems are "flat" organizations which don't provide for tall career ladders. The loose or less structured organization of



intermediate school districts may provide an explanation; positions are interchangeable, somewhat autonomous, and the distance between levels is small. Supervisory personnel are typically chosen from lower echelons of the organization.

The leadership variables of initiation of structure, consideration, and integration provided the most significant correlations with both the dependent variables of job satisfaction and influence. The findings of a large number of correlations using consideration and initiating structure and other measures are consistent with generalized studies in education and industry (Fast, 1964; Seaman, 1957; Taylor, Crook, & Dropkin, 1961; House, Filley, & Kerr, 1971; Stogdill, 1965). House, Filley, and Gujarati (1971) hypothesized that positive correlates between initiating structure, consideration, and measures of satisfaction occur among workers whose work is intrinsically satisfying and not repetitive or routine. The integration measures correlated with all influence and job satisfaction variables. Integration has been defined as behavior the leader maintains to provide a closely knit organization and resolve inter-member conflicts (Stogdill, 1963). This finding would support the description of a collegial group, all professionally trained and similarly educated. Special educators in intermediate school districts generally work on a "team" basis to diagnose and plan for handicapped children with all members of the team considered co-equal and respected for their area of expertise. As previously stated, there were more correlations for leadership and job satisfaction with higher magnitudes than for leadership with influence.

### Multiple Regression Analyses

The results of the multiple regression analyses provided interesting results. The largest variance explained ( $R^2$  change) was in the job satisfaction measure of supervision. The leadership variable of consideration accounted for 44% of the variance. This result has been previously explained in the correlation analysis and would suggest a linear relationship between characteristics of supervision and consideration. Consideration accounted for 8% of the variance when regressed with satisfaction with work. Integration accounted for significant variance in six of the influence variables. The largest amount of variance explained was in general influence. Additionally, 11% of the variance in the regressions with satisfaction with people and satisfaction with promotional opportunities was accounted for by integration. Superior orientation accounted for less variance explained but was a significant variable in the findings. These findings tentatively suggest a considerate leader who regards the comfort, well being, status of others and who maintains an integrated, closely knit organization, who resolves conflicts and maintains cordial relations with superiors and has influence with them, will be perceived by workers as exerting influence and contributing to job satisfaction. It is premature to project a prediction model until additional replication is done.

### Correlations by Position of Director, Supervisor, and Staff

Correlations for the position of director indicated the leadership variables of consideration and tolerance of freedom

correlated most often with the dependent measures. Directors perceived these two variables as having the most impact on job satisfaction and influence. Correlations for the position of supervisor indicated the leadership variables of initiation of structure, consideration, integration, and persuasiveness exhibited by the director correlated with both influence and satisfaction.

Correlations for the position of staff indicated integration was the leadership variable exhibited by the director most affecting the dependent variables. These findings represent the differences among the perceptions of respondents in the three positions.

#### One-Way Anovas by Position on the Dependent Variables

The anovas indicated differences did exist between the positions on all of the dependent variables. However, without further analyses it is not possible to generalize beyond this.

#### Conclusions Related to This Research

1. Demographic information is not linearly related to job satisfaction and influence for special educators.
2. Consideration and initiating structure represent the best tentative predictor variables for measures of influence and job satisfaction.

#### Limitations

This study was organized as exploratory correlational research. It was not designed to test hypotheses consisting of causal relationships between clearly defined and carefully controlled

variables. Generalization beyond observed relationships is not feasible.

Additional limitations are the potential inconsistencies within and across respondents on the variables of study. As the measures required individual perceptions, it is impossible to tell whether the criteria used by individual respondents were consistent among respondents.

The population surveyed was employees of intermediate school districts in Michigan. It would be difficult to generalize present findings to special educators in K-12 districts and state institutions in Michigan as the organizational structures are very different.

The Job Description Index (JDI) was revised for the present study. Some of the scales were shortened by the pilot study respondents. The revised JDI was not revalidated, presenting another possible limitation.

#### Suggestions for Further Research

Some of the findings and limitations of this research suggest further study. The relationships among the variables used in the present study need to be replicated with other groups of educators both in special and general education and public and institutional schools to verify the results for a prediction model. With replication, other statistical analyses might be considered, i.e., canonical regression if the leadership variables are consistent across studies.

The correlation with the satisfaction measures of promotional opportunities should be investigated by employee position. There

were generally higher correlations between leadership and satisfaction with promotional opportunities for directors and staff than for supervisors. Why is this? In general, the perceptions of the varying employee groups included in this research should be investigated on a micro level. Possible further research could be conducted by stratifying groups by demographic information--for example, large versus small districts, high pay versus low pay--to see if differences between the stratified groups do exist.

Another area of investigation would include performance measures for the leader (director) added to the mix of variables to see if effective leadership acts as an intervening variable on perceived influence and job satisfaction in educational groups. This was suggested by Spicknall (1970) in his research of intermediate school districts.

Katz and Kahn (1966) suggested a further possibility: leadership can and should be studied as it bears on the group's achievement of desired outputs. This would involve research using organizational goals related to leadership and measures of group performance. Further research might also include organizational climate as measured on the Organizational Climate Decision Questionnaire (OCDQ). Halpin and Croft (1962) suggested this as an additional leadership measure in studies of leadership, job satisfaction, and influence. Are there relationships between perceived job satisfaction and influence of the leader which are affected by organizational climate? Would the findings suggested by this research of a considerate leader, who maintains an integrated organization and maintains cordial

relations with superiors, be partially explained by additional leadership measures of organizational climate?

Finally, experimental studies involving leadership, job satisfaction, and influence should be designed to investigate the relationships to determine causal relationships.

The intention of this research is to investigate management variables in intermediate school district special education functions. The research is exploratory and the results suggest it is too early to be of practical benefit. Much replication is needed before an applicable prediction model of leadership style for special education administrators can be developed. Future efforts may be more fruitful if researchers concentrate on the variables of leadership, consideration, initiating structure, and integration, which correlated most often with the dependent variables.

## APPENDICES

## **APPENDIX A**

### **PILOT SURVEY**



## APPENDIX A

November 24, 1975

Dear Pilot Volunteer,

In preparation for my dissertation survey, I need "guinea pigs" to answer the enclosed questionnaire. I am not interested in your answers but in your critical evaluation of the proposed instrument.

PLEASE NOTE: The questionnaire assumes you are an employee of the I.S.D. and not the local district. Please assume the role of an I.S.D. employee.

Please do the following while responding:

- A. Time yourself; how long does it take? (Please answer the questions at one sitting.)
- B. Correct any spelling errors. There are many.
- C. Comment where there are confusing directions.
- D. Comment on the organization of the questionnaire, wording, etc.--anything which might throw people off or anything which you feel would improve the instrument.

Above all, please be honest. I need your input.

You will find an enclosed sheet for your comments. Please answer and have this ready for me by Wednesday, November 26. I will pick it up from you.

Thanks for volunteering.

Sincerely,

Meg Oberlin

MO:kg

**SPECIAL EDUCATION RESEARCH QUESTIONNAIRE  
FROM MICHIGAN STATE UNIVERSITY**

**General Directions:** For research purposes, it is important that you answer each question of this questionnaire. For each item, please mark your choice of response in pencil. Make your marks clearly. Erase completely when necessary.

PART 1. This section of the questionnaire is aimed at obtaining some information regarding your background. This information is critical to the success of the study, so please answer each question. Please mark only one answer for each question.

1. Your position in the I.S.D.      1) Director    2) Supervisor    3) Staff
2. Number of special education staff in your I.S.D.      1) 30 or below  
   2) 31 or above
3. Age group      1) 26-30      2) 31-35      3) 36-40      4) 41-45  
                             5) 46-50      6) 51-55      7) 56-60
4. Mark your race.      1) Black      2) White      3) Chicano  
   4) Native American      5) Oriental
5. Mark your sex.      1) Male      2) Female
6. How many years have you worked in your present I.S.D.?      1) Less than 3      2) 3 or more
7. How many years have you been in your present position?      1) Less than 3      2) 3 or more

PART 2. Listed below are some statements concerning amounts of influence in your intermediate school district. Indicate the amount of influence you feel each of the positions have in your I.S.D. Please read each question carefully. The numbers and their meanings are indicated below.

You feel the position has no influence, mark space 1. You feel the position has a small amount of influence, mark space 2. You feel the position has a moderate amount of influence, mark space 3. You feel the position has a large amount of influence, mark space 4. You feel the position has a complete amount of influence, mark space 5.

8. In general, how much say or influence does the special ed. director have on what happens in your I.S.D.? 1 2 3 4 5

- |  |           |
|--|-----------|
| 9. In general, how much say or influence do the special ed. supervisor(s) have on what happens in your I.S.D.? | 1 2 3 4 5 |
| 10. In general, yow much say or influence does the special ed. staff have on what happens in your I.S.D.?      | 1 2 3 4 5 |
| 11. Amount of influence of director in curriculum in district?   | 1 2 3 4 5 |
| 12. Amount of influence of supervisor(s) in curriculum in district?  | 1 2 3 4 5 |
| 13. Amount of influence of staff in curriculum in district?  | 1 2 3 4 5 |
| 14. Amount of influence of director in personnel selection in district?  | 1 2 3 4 5 |
| 15. Amount of influence of supervisor(s) in personnel selection in district?                                   | 1 2 3 4 5 |
| 16. Amount of influence of staff in personnel selection in district?   | 1 2 3 4 5 |
| 17. Amount of influence of director in establishing new programs?  | 1 2 3 4 5 |
| 18. Amount of influence of supervisor(s) in establishing new programs?   | 1 2 3 4 5 |
| 19. Amount of influence of staff in establishing new programs?   | 1 2 3 4 5 |
| 20. Amount of influence of director in personnel promotions in district?                                       | 1 2 3 4 5 |
| 21. Amount of influence of supervisor(s) in personnel promotions in district?                                  | 1 2 3 4 5 |
| 22. Amount of influence of staff in personnel promotions in district?  | 1 2 3 4 5 |
| 23. Amount of influence of director in establishing new policies in district?                                  | 1 2 3 4 5 |
| 24. Amount of influence of supervisor(s) in establishing new policies in district?                             | 1 2 3 4 5 |
| 25. Amount of influence of staff in establishing new policies in district?                                     | 1 2 3 4 5 |

PART 3. Listed below are words referring to items which describe particular aspects of jobs--work, supervision, people, pay promotion. Mark space 1 if the item describes your job. Mark space 2 if the item does not describe your jog. Mark space 3 if you cannot decide.

## WORK

|                                   |   |   |   |
|-----------------------------------|---|---|---|
| 26. Fascinating                   | 1 | 2 | 3 |
| 27. Routine                       | 1 | 2 | 3 |
| 28. Satisfying                    | 1 | 2 | 3 |
| 29. Boring                        | 1 | 2 | 3 |
| 30. Good                          | 1 | 2 | 3 |
| 31. Creative                      | 1 | 2 | 3 |
| 32. Respected                     | 1 | 2 | 3 |
| 33. Hot                           | 1 | 2 | 3 |
| 34. Pleasant                      | 1 | 2 | 3 |
| 35. Useful                        | 1 | 2 | 3 |
| 36. Tiresome                      | 1 | 2 | 3 |
| 37. Healthful                     | 1 | 2 | 3 |
| 38. Challenging                   | 1 | 2 | 3 |
| 39. On your feet                  | 1 | 2 | 3 |
| 40. Frustrating                   | 1 | 2 | 3 |
| 41. Simple                        | 1 | 2 | 3 |
| 42. Endless                       | 1 | 2 | 3 |
| 43. Gives sense of accomplishment | 1 | 2 | 3 |

## PEOPLE

|                          |   |   |   |
|--------------------------|---|---|---|
| 44. Stimulating          | 1 | 2 | 3 |
| 45. Boring               | 1 | 2 | 3 |
| 46. Slow                 | 1 | 2 | 3 |
| 47. Ambitious            | 1 | 2 | 3 |
| 48. Stupid               | 1 | 2 | 3 |
| 49. Responsible          | 1 | 2 | 3 |
| 50. Fast                 | 1 | 2 | 3 |
| 51. Intelligent          | 1 | 2 | 3 |
| 52. Easy to make enemies | 1 | 2 | 3 |
| 53. Talk too much        | 1 | 2 | 3 |
| 54. Smart                | 1 | 2 | 3 |
| 55. Lazy                 | 1 | 2 | 3 |
| 56. Unpleasant           | 1 | 2 | 3 |

|                      |       |
|----------------------|-------|
| 57. No privacy       | 1 2 3 |
| 58. Active           | 1 2 3 |
| 59. Narrow interests | 1 2 3 |
| 60. Loyal            | 1 2 3 |
| 61. Hard to meet     | 1 2 3 |

## SUPERVISION

|                              |       |
|------------------------------|-------|
| 62. Asks my advice           | 1 2 3 |
| 63. Hard to please           | 1 2 3 |
| 64. Impolite                 | 1 2 3 |
| 65. Praises good work        | 1 2 3 |
| 66. Tactful                  | 1 2 3 |
| 67. Influential              | 1 2 3 |
| 68. Up-to-date               | 1 2 3 |
| 69. Doesn't supervise enough | 1 2 3 |
| 70. Quick-tempered           | 1 2 3 |
| 71. Tells me where I stand   | 1 2 3 |
| 72. Annoying                 | 1 2 3 |
| 73. Stubborn                 | 1 2 3 |
| 74. Knows job well           | 1 2 3 |
| 75. Bad                      | 1 2 3 |
| 76. Intelligent              | 1 2 3 |
| 77. Leaves me on my own      | 1 2 3 |
| 78. Around when needed       | 1 2 3 |
| 79. Lazy                     | 1 2 3 |

## PAY

|   |       |
|---|-------|
| 80. Income adequate for normal expenses | 1 2 3 |
| 81. Satisfactory profit sharing         | 1 2 3 |
| 82. Barely live on income               | 1 2 3 |
| 83. Bad                                 | 1 2 3 |
| 84. Income provides luxuries            | 1 2 3 |
| 85. Insecure                            | 1 2 3 |
| 86. Less than I deserve                 | 1 2 3 |

- |                 |       |
|-----------------|-------|
| 87. Highly paid | 1 2 3 |
| 88. Underpaid   | 1 2 3 |

## PROMOTIONS

- |                                      |       |
|--------------------------------------|-------|
| 89. Good opportunity for advancement | 1 2 3 |
| 90. Opportunity somewhat limited     | 1 2 3 |
| 91. Promotion on ability             | 1 2 3 |
| 92. Dead-end job                     | 1 2 3 |
| 93. Good chance for promotion        | 1 2 3 |
| 94. Unfair promotion policy          | 1 2 3 |
| 95. Infrequent promotions            | 1 2 3 |
| 96. Regular promotions               | 1 2 3 |
| 97. Fairly good chance for promotion | 1 2 3 |

PART 4. Listed below are several items which may be used to describe the behavior of your leader. Each item describes a specific kind of behavior but does not ask you to judge whether the behavior is desirable or undesirable. Please describe as accurately as you can the behavior of the leader to whom you report.

Leader never acts as described, mark space number 1  
 Leader seldom acts as described, mark space number 2  
 Leader occasionally acts as described, mark space number 3  
 Leader often acts as described, mark space number 4  
 Leader always acts as described, mark space number 5

- |  |           |
|--|-----------|
| 98. Please indicate the position of the leader you are describing.      1) Supervisor      2) Director | 1 2 3 4 5 |
| 99. He acts as the spokesman of the group.   | 1 2 3 4 5 |
| 100. He waits patiently for the results of a decision.   | 1 2 3 4 5 |
| 101. He makes pep talks to stimulate the group.  | 1 2 3 4 5 |
| 102. He lets group members know what is expected of them.  | 1 2 3 4 5 |
| 103. He allows the members complete freedom in their work.   | 1 2 3 4 5 |
| 104. He is hesitant about taking initiative in the group.  | 1 2 3 4 5 |
| 105. He is friendly and approachable.  | 1 2 3 4 5 |
| 106. He encourages overtime work.  | 1 2 3 4 5 |
| 107. He makes accurate decisions.  | 1 2 3 4 5 |
| 108. He gets along well with the people above him.   | 1 2 3 4 5 |
| 109. He publicizes the activities of the group.  | 1 2 3 4 5 |

- |   |           |
|---|-----------|
| 110. He becomes anxious when he cannot find out what is coming next.        | 1 2 3 4 5 |
| 111. His arguments are convincing.  | 1 2 3 4 5 |
| 112. He encourages the use of uniform procedures.                           | 1 2 3 4 5 |
| 113. He permits the members to use their own judgment in solving problems.  | 1 2 3 4 5 |
| 114. He fails to take necessary action.                                     | 1 2 3 4 5 |
| 115. He does little things to make it pleasant to be a member of the group. | 1 2 3 4 5 |
| 116. He stresses being ahead of competing groups.                           | 1 2 3 4 5 |
| 117. He keeps the group working together as a team.                         | 1 2 3 4 5 |
| 118. He keeps the group in good standing with high authority.               | 1 2 3 4 5 |
| 119. He speaks as the representative of the group.                          | 1 2 3 4 5 |
| 120. He accepts defeat in stride.   | 1 2 3 4 5 |
| 121. He argues persuasively for his point of view.                          | 1 2 3 4 5 |
| 122. He tries out his ideas in the group.                                   | 1 2 3 4 5 |
| 123. He encourages initiative in the group members.                         | 1 2 3 4 5 |
| 124. He lets other persons take away his leadership in the group.           | 1 2 3 4 5 |
| 125. He puts suggestions made by the group into operation.                  | 1 2 3 4 5 |
| 126. He needles members for greater effort.                                 | 1 2 3 4 5 |
| 127. He seems able to predict what is coming next.                          | 1 2 3 4 5 |
| 128. He is working hard for a promotion.                                    | 1 2 3 4 5 |
| 129. He speaks for the group when visitors are present.                     | 1 2 3 4 5 |
| 130. He accepts delays without becoming upset.                              | 1 2 3 4 5 |
| 131. He is a very persuasive talker.  | 1 2 3 4 5 |
| 132. He makes his attitudes clear to the group.                             | 1 2 3 4 5 |
| 133. He lets the members do their work the way they think best.             | 1 2 3 4 5 |
| 134. He lets some members take advantage of him.                            | 1 2 3 4 5 |
| 135. He treats all group members as his equals.                             | 1 2 3 4 5 |
| 136. He keeps the work moving at a rapid pace.                              | 1 2 3 4 5 |
| 137. He settles conflicts when they occur in the group.                     | 1 2 3 4 5 |
| 138. His superiors act favorably on most of his suggestions.                | 1 2 3 4 5 |
| 139. He represents the group at outside meetings.                           | 1 2 3 4 5 |

- |   |           |
|---|-----------|
| 140. He becomes anxious when waiting for new developments.                        | 1 2 3 4 5 |
| 141. He is very skillful in an argument.  | 1 2 3 4 5 |
| 142. He decides what shall be done and how it shall be done.                      | 1 2 3 4 5 |
| 143. He assigns a task, then lets the members handle it.                          | 1 2 3 4 5 |
| 144. He is the leader of the group in name only.                                  | 1 2 3 4 5 |
| 145. He gives advance notice of changes.  | 1 2 3 4 5 |
| 146. He pushes for increases production.  | 1 2 3 4 5 |
| 147. Things usually turn out as he predicts.                                      | 1 2 3 4 5 |
| 148. He enjoys the privileges of his position.                                    | 1 2 3 4 5 |
| 149. He handles complex problems efficiently.                                     | 1 2 3 4 5 |
| 150. He is able to tolerate postponement and uncertainty.                         | 1 2 3 4 5 |
| 151. He is not a very convincing talker.  | 1 2 3 4 5 |
| 152. He assigns group members to particular tasks.                                | 1 2 3 4 5 |
| 153. He turns the members loose on a job, and lets them go to it.                 | 1 2 3 4 5 |
| 154. He backs down when he out to stand firm.                                     | 1 2 3 4 5 |
| 155. He keeps to himself.   | 1 2 3 4 5 |
| 156. He asks the members to work harder.  | 1 2 3 4 5 |
| 157. He is accurate in predicting the trend of events.                            | 1 2 3 4 5 |
| 158. He gets his superiors to act for the welfare of the group members.           | 1 2 3 4 5 |
| 159. He gets swamped by details.  | 1 2 3 4 5 |
| 160. He can wait just so long, then blows up.                                     | 1 2 3 4 5 |
| 161. He speaks from a strong inner conviction.                                    | 1 2 3 4 5 |
| 162. He makes sure that his part in the group is understood by the group members. | 1 2 3 4 5 |
| 163. He is reluctant to allow the members any freedom of action.                  | 1 2 3 4 5 |
| 164. He lets some members have authority that he should keep.                     | 1 2 3 4 5 |
| 165. He looks out for the personal welfare of group members.                      | 1 2 3 4 5 |
| 166. He sees to it that the work of the group is coordinated.                     | 1 2 3 4 5 |
| 167. His work carries weight with his superiors.                                  | 1 2 3 4 5 |
| 168. He gets things all tangled up.   | 1 2 3 4 5 |
| 169. He remains calm when uncertain about coming events.                          | 1 2 3 4 5 |
| 170. He is an inspiring talker.   | 1 2 3 4 5 |
| 171. He schedules the work to be done.  | 1 2 3 4 5 |



- |  |           |
|--|-----------|
| 172. He allows the group a high degree of initiative.                  | 1 2 3 4 5 |
| 173. He takes full charge when emergencies arise.                      | 1 2 3 4 5 |
| 174. He is willing to make changes.                                    | 1 2 3 4 5 |
| 175. He drives hard when there is a job to be done.                    | 1 2 3 4 5 |
| 176. He helps group members settle their differences.                  | 1 2 3 4 5 |
| 177. He gets what he asks for from his superiors.                      | 1 2 3 4 5 |
| 178. He can reduce a madhouse to system and order.                     | 1 2 3 4 5 |
| 179. He is able to delay action until the proper time occurs.          | 1 2 3 4 5 |
| 180. He persuades others that his ideas are to their advantage.        | 1 2 3 4 5 |
| 181. He maintains definite standards of performance.                   | 1 2 3 4 5 |
| 182. He trusts the members to exercise good judgment.                  | 1 2 3 4 5 |
| 183. He overcomes attempts made to challenge his leadership.           | 1 2 3 4 5 |
| 184. He refuses to explain his actions.                                | 1 2 3 4 5 |
| 185. He urges the group to beat its previous record.                   | 1 2 3 4 5 |
| 186. He anticipates problems and plans for them.                       | 1 2 3 4 5 |
| 187. He is working his way to the top.                                 | 1 2 3 4 5 |
| 188. He gets confused when too many demands are made of him.           | 1 2 3 4 5 |
| 189. He worries about the outcome of any new procedure.                | 1 2 3 4 5 |
| 190. He can inspire enthusiasm for a project.                          | 1 2 3 4 5 |
| 191. He asks that group members follow standard rules and regulations. | 1 2 3 4 5 |
| 192. He permits the group to set its own pace.                         | 1 2 3 4 5 |
| 193. He is easily recognized as the leader of the group.               | 1 2 3 4 5 |
| 194. He acts without consulting the group.                             | 1 2 3 4 5 |
| 195. He keeps the group working up to capacity.                        | 1 2 3 4 5 |
| 196. He maintains a closely knit group.                                | 1 2 3 4 5 |
| 197. He maintains cordial relations with superiors.                    | 1 2 3 4 5 |

COMPLETE AND RETURN TO

Special Education Research Questionnaire  
 c/o Dr. Charles E. Henley and Ms. Megan Oberlin  
 Department of Elementary and Special Education  
 352A Erickson Hall  
 Michigan State University  
 East Lansing, Michigan 48824

COMMENTS

Items Deleted From Job Description Index as a  
Result of the Pilot Survey

WORK

good  
useful

SUPERVISION

bad

PEOPLE

slow  
fast  
smart  
no privacy

PAY

satisfactory profit sharing  
bad  
insecure

PROMOTIONS

good opportunity for advancement  
infrequent promotions  
regular promotions

## APPENDIX B

### SURVEY

## APPENDIX B

February 1976

### GENERAL INFORMATION FOR THE DIRECTOR

Last summer I contacted you for information on your supervisors. I also asked for your cooperation with this study last August at the Administrators Institute in Grand Rapids.

I need your help in conducting this survey. Please, please complete your survey and encourage your staff members to complete their copies.

In order for the analysis to be valid, a large return rate is needed. Also, the instrument and postage are expensive.

The folders enclosed are addressed to each staff member listed in the 200-300 positions on your KO-10, 1974-75. It is vital that you give your staff members their envelopes. If any envelopes are marked for staff members who:

1. are no longer in your employ, or
2. are operating a classroom (100 position),

please cross out the name and give to another staff member to complete.

Each folder contains:

1. Letter of introduction and explanation
2. Survey instrument
3. Return envelope

Any questions, please call me collect in Traverse City at:

(616) 946-9140 Ext. 240 (8:00 a.m. - 5:00 p.m.)  
(616) 946-3803 (after 5:00 p.m.)

Megan H. Oberlin

GENERAL INFORMATION FOR THE DIRECTOR

There are folders in this box addressed to each staff member listed in the 200-300 positions on your KO-10, 1974-75. It is vital that you give your staff members their envelopes. If any envelopes are marked for staff members who:

1. Are no longer in your employ, or
2. are operating a classroom (100 position),

please cross out the name and give to another staff member to complete.

Each folder contains:

1. Letter of introduction and explanation
2. Survey instrument
3. Return envelope

I need your help in conducting this survey. Please, please complete your survey and encourage your staff members to complete their copies.

In order for the analysis to be valid, a large return rate is needed. Also, the instrument and postage are expensive.

Any questions, please call me collect in Traverse City at:

(616) 946-9140 Ext. 240 (8:00 a.m. - 5:00 p.m.)  
 (606) 946-3803 (after 5:00 p.m.)

Sincerely yours,

Megan H. Oberlin

MHO:kg

February 1976

Dear Colleague,

I am a Special Educator in Traverse City and graduate student at Michigan State University. I am conducting a study and need your help as a participant.

The purpose of this study is to obtain measures on how special educators feel about aspects of their work organizations and their jobs. Your perceptions will provide insight into how special educators view their jobs and may result in some predictors.

This questionnaire has been prepared with the guidance and support of Dr. Larry Foster, Department of Management, College of Business, Michigan State University, and Dr. Charles Henley, Department of Elementary and Special Education, College of Education, Michigan State University.

The questionnaire takes approximately 35 minutes to answer.  
Please answer all questions on the survey with PENCIL.

Please express your true feelings in completing the questionnaire. Answers are confidential. You are identified by a respondent number for the following reasons:

- a. to insure contact with correct respondents for the study;
- b. to insure accurate data analysis as more than one computer card per respondent is necessary.

However, no individual or district is to be identified in the subsequent analysis.

Your cooperation and support are essential. Please, please take a few minutes out of your busy day and complete the questionnaire. Please return the completed questionnaire in the enclosed envelope by March 10. The information you provide is crucial to the study.

Thank you in advance for your time and effort.

Sincerely yours,

Megan H. Oberlin

MHO:kg

**SPECIAL EDUCATION RESEARCH QUESTIONNAIRE**  
Michigan State University

**General Directions:** For research purposes, it is important that you answer each question of this questionnaire. For each item, please mark your choice of response in pencil. Make your marks clearly. Erase completely when necessary.

|     |    |    |    |    |    |    |    |    |
|-----|----|----|----|----|----|----|----|----|
| 1   | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10  | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19  | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28  | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| 37  | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| 46  | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| 55  | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 |
| 64  | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 |
| 73  | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 |
| 82  | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91  | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 |
| 100 |    |    |    |    |    |    |    |    |

**PART 1**

This section of the questionnaire is aimed at obtaining some information regarding your background. This information is critical to the success of the study, so please answer each question. Please mark only one answer for each question.

1. Your position in the I.S.D.      1. Director      2. Supervisor      3. Staff
2. Number of special education staff in your I.S.D.      1. 30 or below      2. 31 or above
3. Mark your age      1. 26-30      2. 31-35      3. 36-40      4. 41-45      5. 46-50      6. 51-55      7. 56-60
4. Mark your race      1. Black      2. White      3. Chicano      4. Native American      5. Oriental
5. Mark your sex      1. Male      2. Female
6. How many years have you worked in your present I.S.D.?      1. Less than 3      2. 3 or more
7. How many years have you been in your present position?      1. Less than 3      2. 3 or more

**PART 2**

Listed below are some statements concerning amounts of influence in your intermediate school district. Indicate the amount of influence you feel each of the positions have in your I.S.D. Please read each question carefully. The numbers and their meanings are indicated below.

- You feel the position has no influence, mark space 1.  
 You feel the position has a small amount of influence, mark space 2.  
 You feel the position has a moderate amount of influence, mark space 3.  
 You feel the position has a large amount of influence, mark space 4.  
 You feel the position has a complete amount of influence, mark space 5.

\*Districts without supervisor, leave 14-19 blank.

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 8. In general, how much influence does the special ed. director have on what happens in your I.S.D.?     | 1 | 2 | 3 | 4 | 5 |
| 9. How much influence has special ed. director in curriculum in your I.S.D.?                             | 1 | 2 | 3 | 4 | 5 |
| 10. How much influence has special ed. director in personnel selection in your I.S.D.?                   | 1 | 2 | 3 | 4 | 5 |
| 11. How much influence has special ed. director in establishing new programs in your I.S.D.?             | 1 | 2 | 3 | 4 | 5 |
| 12. How much influence has special ed. director in personnel promotions in your I.S.D.?                  | 1 | 2 | 3 | 4 | 5 |
| 13. How much influence has special ed. director in establishing new policies in your I.S.D.?             | 1 | 2 | 3 | 4 | 5 |
| *14. In general, how much influence does the special ed. supervisor have on what happens in your I.S.D.? | 1 | 2 | 3 | 4 | 5 |
| *15. How much influence has special ed. supervisor in curriculum in your I.S.D.?                         | 1 | 2 | 3 | 4 | 5 |
| *16. How much influence has special ed. supervisor in personnel selection in your I.S.D.?                | 1 | 2 | 3 | 4 | 5 |
| *17. How much influence has special ed. supervisor in establishing new programs in your I.S.D.?          | 1 | 2 | 3 | 4 | 5 |
| *18. How much influence has special ed. supervisor in personnel promotions in your I.S.D.?               | 1 | 2 | 3 | 4 | 5 |
| *19. How much influence has special ed. supervisor in establishing new policies in your I.S.D.?          | 1 | 2 | 3 | 4 | 5 |
| 20. In general, how much influence does the special ed. staff have on what happens in your I.S.D.?       | 1 | 2 | 3 | 4 | 5 |
| 21. How much influence has special ed. staff in curriculum in your I.S.D.?                               | 1 | 2 | 3 | 4 | 5 |
| 22. How much influence has special ed. staff in personnel selection in your I.S.D.?                      | 1 | 2 | 3 | 4 | 5 |
| 23. How much influence has special ed. staff in establishing new programs in your I.S.D.?                | 1 | 2 | 3 | 4 | 5 |
| 24. How much influence has special ed. staff in personnel promotions in your I.S.D.?                     | 1 | 2 | 3 | 4 | 5 |
| 25. How much influence has special ed. staff in establishing new policies in your I.S.D.?                | 1 | 2 | 3 | 4 | 5 |



**PART 3.**

Listed below are some words describing particular aspects of jobs—work, supervision, people, pay, promotion. Mark space 1 if the word describes your job. Mark space 2 if the word does not describe your job. Mark space 3 if you cannot decide.

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

**WORK — YOUR JOB**

|                                   |   |   |   |                 |   |   |   |
|-----------------------------------|---|---|---|-----------------|---|---|---|
| 28. Fascinating                   | 1 | 2 | 3 | 27. Routine     | 1 | 2 | 3 |
| 29. Satisfying                    | 1 | 2 | 3 | 28. Boring      | 1 | 2 | 3 |
| 30. Creative                      | 1 | 2 | 3 | 31. Respected   | 1 | 2 | 3 |
| 32. Tiresome                      | 1 | 2 | 3 | 32. Pleasant    | 1 | 2 | 3 |
| 34. Gives sense of accomplishment | 1 | 2 | 3 | 35. Challenging | 1 | 2 | 3 |
| 36. On your feet                  | 1 | 2 | 3 | 37. Frustrating | 1 | 2 | 3 |
| 38. Simple                        | 1 | 2 | 3 | 38. Endless     | 1 | 2 | 3 |

**PEOPLE ON I.S.D. STAFF (Special Ed.)**

|                          |   |   |   |                   |   |   |   |
|--------------------------|---|---|---|-------------------|---|---|---|
| 40. Boring               | 1 | 2 | 3 | 41. Stimulating   | 1 | 2 | 3 |
| 42. Ambitious            | 1 | 2 | 3 | 43. Stupid        | 1 | 2 | 3 |
| 44. Responsible          | 1 | 2 | 3 | 45. Intelligent   | 1 | 2 | 3 |
| 46. Easy to make enemies | 1 | 2 | 3 | 47. Talk too much | 1 | 2 | 3 |
| 48. Lazy                 | 1 | 2 | 3 | 49. Unpleasant    | 1 | 2 | 3 |
| 50. Narrow interests     | 1 | 2 | 3 | 51. Active        | 1 | 2 | 3 |
| 52. Loyal                | 1 | 2 | 3 | 53. Hard to meet  | 1 | 2 | 3 |

**SUPERVISION**

|                         |   |   |   |                              |   |   |   |
|-------------------------|---|---|---|------------------------------|---|---|---|
| 54. Asks my advice      | 1 | 2 | 3 | 56. Impolite                 | 1 | 2 | 3 |
| 55. Hard to please      | 1 | 2 | 3 | 57. Praises good work        | 1 | 2 | 3 |
| 58. Tactful             | 1 | 2 | 3 | 59. Influential              | 1 | 2 | 3 |
| 60. Up-to-date          | 1 | 2 | 3 | 61. Doesn't supervise enough | 1 | 2 | 3 |
| 62. Quick-tempered      | 1 | 2 | 3 | 63. Tells me where I stand   | 1 | 2 | 3 |
| 64. Annoying            | 1 | 2 | 3 | 65. Stubborn                 | 1 | 2 | 3 |
| 66. Knows job well      | 1 | 2 | 3 | 67. Intelligent              | 1 | 2 | 3 |
| 68. Leaves me on my own | 1 | 2 | 3 | 69. Around when needed       | 1 | 2 | 3 |
| 70. Lazy                | 1 | 2 | 3 |                              |   |   |   |

**PAY**

|   |   |   |   |                              |   |   |   |
|---|---|---|---|------------------------------|---|---|---|
| 71. Income adequate for normal expenses | 1 | 2 | 3 | 72. Barely live on income    | 1 | 2 | 3 |
| 73. Less than I deserve                 | 1 | 2 | 3 | 74. Income provides luxuries | 1 | 2 | 3 |
| 75. Highly paid                         | 1 | 2 | 3 | 76. Underpaid                | 1 | 2 | 3 |

**PROMOTIONS**

|                               |   |   |   |                                      |   |   |   |
|-------------------------------|---|---|---|--------------------------------------|---|---|---|
| 77. Promotion on ability      | 1 | 2 | 3 | 78. Dead end job                     | 1 | 2 | 3 |
| 79. Good chance for promotion | 1 | 2 | 3 | 80. Opportunity somewhat limited     | 1 | 2 | 3 |
| 81. Unfair promotion policy   | 1 | 2 | 3 | 82. Fairly good chance for promotion | 1 | 2 | 3 |

**PART 4.**

Listed below are several items which may be used to describe the behavior of your leader. Each item describes a specific kind of behavior but does not ask you to judge whether the behavior is desirable or undesirable. Please describe as accurately as you can the behavior of the leader to whom you report.

Leader never acts as described, mark space number 1. Leader seldom acts as described, mark space number 2. Leader occasionally acts as described, mark space number 3. Leader often acts as described, mark space number 4. Leader always acts as described, mark space number 5.

\*Directors, please describe yourself in your position as director.

83. Please indicate the position of the leader you are describing. 1 Supervisor 2 Director

84. Leader acts as the spokesman of the group.  
 85. Leader waits patiently for the results of a decision.  
 86. Leader makes pep talks to stimulate the group.  
 87. Leader lets group members know what is expected of them.  
 88. Leader allows the members complete freedom in their work.  
 89. Leader is hesitant about taking initiative in the group.  
 90. Leader is friendly and approachable.

|     | Never | Seldom | Occasionally | Often | Always |
|-----|-------|--------|--------------|-------|--------|
| 84. | 1     | 2      | 3            | 4     | 5      |
| 85. | 1     | 2      | 3            | 4     | 5      |
| 86. | 1     | 2      | 3            | 4     | 5      |
| 87. | 1     | 2      | 3            | 4     | 5      |
| 88. | 1     | 2      | 3            | 4     | 5      |
| 89. | 1     | 2      | 3            | 4     | 5      |
| 90. | 1     | 2      | 3            | 4     | 5      |

|   | Never | Seldom | Occasionally | Often | Always |
|---|-------|--------|--------------|-------|--------|
| 91. Leader encourages overtime work.  | 1     | 2      | 3            | 4     | 5      |
| 92. Leader makes accurate decisions.  | 1     | 2      | 3            | 4     | 5      |
| 93. Leader gets along well with the people above him.                           | 1     | 2      | 3            | 4     | 5      |
| 94. Leader publicizes the activities of the group.                              | 1     | 2      | 3            | 4     | 5      |
| 95. Leader becomes anxious when leader cannot find out what is coming next.     | 1     | 2      | 3            | 4     | 5      |
| 96. Leader's arguments are convincing.  | 1     | 2      | 3            | 4     | 5      |
| 97. Leader encourages the use of uniform procedures.                            | 1     | 2      | 3            | 4     | 5      |
| 98. Leader permits the members to use their own judgment in solving problems.   | 1     | 2      | 3            | 4     | 5      |
| 99. Leader fails to take necessary action.                                      | 1     | 2      | 3            | 4     | 5      |
| 100. Leader does little things to make it pleasant to be a member of the group. | 1     | 2      | 3            | 4     | 5      |
| 101. Leader stresses being ahead of competing groups.                           | 1     | 2      | 3            | 4     | 5      |
| 102. Leader keeps the group working together as a team.                         | 1     | 2      | 3            | 4     | 5      |
| 103. Leader keeps the group in good standing with high authority.               | 1     | 2      | 3            | 4     | 5      |
| 104. Leader speaks as the representative of the group.                          | 1     | 2      | 3            | 4     | 5      |
| 105. Leader accepts defeat in stride.   | 1     | 2      | 3            | 4     | 5      |
| 106. Leader argues persuasively for leader's point of view.                     | 1     | 2      | 3            | 4     | 5      |
| 107. Leader tries out leader's ideas in the group.                              | 1     | 2      | 3            | 4     | 5      |
| 108. Leader encourages initiative in the group members.                         | 1     | 2      | 3            | 4     | 5      |
| 109. Leader lets other persons take away leadership in the group.               | 1     | 2      | 3            | 4     | 5      |
| 110. Leader puts suggestions made by the group into operation.                  | 1     | 2      | 3            | 4     | 5      |
| 111. Leader needles members for greater effort.                                 | 1     | 2      | 3            | 4     | 5      |
| 112. Leader seems able to predict what is coming next.                          | 1     | 2      | 3            | 4     | 5      |
| 113. Leader is working hard for a promotion.                                    | 1     | 2      | 3            | 4     | 5      |
| 114. Leader speaks for the group when visitors are present.                     | 1     | 2      | 3            | 4     | 5      |
| 115. Leader accepts delays without becoming upset.                              | 1     | 2      | 3            | 4     | 5      |
| 116. Leader is a very persuasive talker.  | 1     | 2      | 3            | 4     | 5      |
| 117. Leader makes leader's attitudes clear to the group.                        | 1     | 2      | 3            | 4     | 5      |
| 118. Leader lets the members do their work the way they think best.             | 1     | 2      | 3            | 4     | 5      |
| 119. Leader lets some members take advantage of her/him.                        | 1     | 2      | 3            | 4     | 5      |
| 120. Leader treats all group members as her/his equals.                         | 1     | 2      | 3            | 4     | 5      |
| 121. Leader keeps the work moving at a rapid pace.                              | 1     | 2      | 3            | 4     | 5      |
| 122. Leader settles conflicts when they occur in the group.                     | 1     | 2      | 3            | 4     | 5      |
| 123. Leader's superiors act favorably on most of the leader's suggestions.      | 1     | 2      | 3            | 4     | 5      |
| 124. Leader represents the group at outside meetings.                           | 1     | 2      | 3            | 4     | 5      |
| 125. Leader becomes anxious when waiting for new developments.                  | 1     | 2      | 3            | 4     | 5      |
| 126. Leader is very skillful in an argument.                                    | 1     | 2      | 3            | 4     | 5      |
| 127. Leader decides what shall be done and how it shall be done.                | 1     | 2      | 3            | 4     | 5      |
| 128. Leader assigns a task, then lets the members handle it.                    | 1     | 2      | 3            | 4     | 5      |
| 129. He/She is the leader of the group in name only.                            | 1     | 2      | 3            | 4     | 5      |
| 130. Leader gives advance notice of changes.                                    | 1     | 2      | 3            | 4     | 5      |
| 131. Leader pushes for increased production.                                    | 1     | 2      | 3            | 4     | 5      |
| 132. Things usually turn out as leader predicts.                                | 1     | 2      | 3            | 4     | 5      |
| 133. Leader enjoys the privileges of leader's position.                         | 1     | 2      | 3            | 4     | 5      |
| 134. Leader handles complex problems efficiently.                               | 1     | 2      | 3            | 4     | 5      |
| 135. Leader is able to tolerate postponement and uncertainty.                   | 1     | 2      | 3            | 4     | 5      |
| 136. Leader is not a very convincing talker.                                    | 1     | 2      | 3            | 4     | 5      |
| 137. Leader assigns group members to particular tasks.                          | 1     | 2      | 3            | 4     | 5      |
| 138. Leader turns the members loose on a job and lets them go to it.            | 1     | 2      | 3            | 4     | 5      |
| 139. Leader backs down when he/she ought to stand firm.                         | 1     | 2      | 3            | 4     | 5      |
| 140. Leader keeps to herself/himself.   | 1     | 2      | 3            | 4     | 5      |
| 141. Leader asks the members to work harder.                                    | 1     | 2      | 3            | 4     | 5      |
| 142. Leader is accurate in predicting the trend of events.                      | 1     | 2      | 3            | 4     | 5      |

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | 537 | 538 | 539 | 540 | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 553 | 554 | 555 | 556 | 557 | 558 | 559 | 560 | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 573 | 574 | 575 | 576 | 577 | 578 | 579 | 580 | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 640 | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 | 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 850 | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 890 | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 900 | 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 | 909 | 910 | 911 | 912 | 913 | 914 | 915 | 916 | 917 | 918 | 919 | 920 | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 930 | 931 | 932 | 933 | 934 | 935 | 936 | 937 | 938 | 939 | 940 | 941 | 942 | 943 | 944 | 945 | 946 | 947 | 948 | 949 | 950 | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 963 | 964 | 965 | 966 | 967 | 968 | 969 | 970 | 971 | 972 | 973 | 974 | 975 | 976 | 977 | 978 | 979 | 980 | 981 | 982 | 983 | 984 | 985 | 986 | 987 | 988 | 989 | 990 | 991 | 992 | 993 | 994 | 995 | 996 | 997 | 998 | 999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1030 | 1031 | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1050 | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1060 | 1061 | 1062 | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 | 1070 | 1071 | 1072 | 1073 | 1074 | 1075 | 1076 | 1077 | 1078 | 1079 | 1080 | 1081 | 1082 | 1083 | 1084 | 1085 | 1086 | 1087 | 1088 | 1089 | 1090 | 1091 | 1092 | 1093 | 1094 | 1095 | 1096 | 1097 | 1098 | 1099 | 1100 | 1101 | 1102 | 1103 | 1104 | 1105 | 1106 | 1107 | 1108 | 1109 | 1110 | 1111 | 1112 | 1113 | 1114 | 1115 | 1116 | 1117 | 1118 | 1119 | 1120 | 1121 | 1122 | 1123 | 1124 | 1125 | 1126 | 1127 | 1128 | 1129 | 1130 | 1131 | 1132 | 1133 | 1134 | 1135 | 1136 | 1137 | 1138 | 1139 | 1140 | 1141 | 1142 | 1143 | 1144 | 1145 | 1146 | 1147 | 1148 | 1149 | 1150 | 1151 | 1152 | 1153 | 1154 | 1155 | 1156 | 1157 | 1158 | 1159 | 1160 | 1161 | 1162 | 1163 | 1164 | 1165 | 1166 | 1167 | 1168 | 1169 | 1170 | 1171 | 1172 | 1173 | 1174 | 1175 | 1176 | 1177 | 1178 | 1179 | 1180 | 1181 | 1182 | 1183 | 1184 | 1185 | 1186 | 1187 | 1188 | 1189 | 1190 | 1191 | 1192 | 1193 | 1194 | 1195 | 1196 | 1197 | 1198 | 1199 | 1200 | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1207 | 1208 | 1209 | 1210 | 1211 | 1212 | 1213 | 1214 | 1215 | 1216 | 1217 | 1218 | 1219 | 1220 | 1221 | 1222 | 1223 | 1224 | 1225 | 1226 | 1227 | 1228 | 1229 | 1230 | 1231 | 1232 | 1233 | 1234 | 1235 | 1236 | 1237 | 1238 | 1239 | 1240 | 1241 | 1242 | 1243 | 1244 | 1245 | 1246 | 1247 | 1248 | 1249 | 1250 | 1251 | 1252 | 1253 | 1254 | 1255 | 1256 | 1257 | 1258 | 1259 | 1260 | 1261 | 1262 | 1263 | 1264 | 1265 | 1266 | 1267 | 1268 | 1269 | 1270 | 1271 | 1272 | 1273 | 1274 | 1275 | 1276 | 1277 | 1278 | 1279 | 1280 | 1281 | 1282 | 1283 | 1284 | 1285 | 1286 | 1287 | 1288 | 1289 | 1290 | 1291 | 1292 | 1293 | 1294 | 1295 | 1296 | 1297 | 1298 | 1299 | 1300 | 1301 | 1302 | 1303 | 1304 | 1305 | 1306 | 1307 | 1308 | 1309 | 1310 | 1311 | 1312 | 1313 | 1314 | 1315 | 1316 | 1317 | 1318 | 1319 | 1320 | 1321 | 1322 | 1323 | 1324 | 1325 | 1326 | 1327 | 1328 | 1329 | 1330 | 1331 | 1332 | 1333 | 1334 | 1335 | 1336 | 1337 | 1338 | 1339 | 1340 | 1341 | 1342 | 1343 | 1344 | 1345 | 1346 | 1347 | 1348 | 1349 | 1350 | 1351 | 1352 | 1353 | 1354 | 1355 | 1356 | 1357 | 1358 | 1359 | 1360 | 1361 | 1362 | 1363 | 1364 | 1365 | 1366 | 1367 | 1368 | 1369 | 1370 | 1371 | 1372 | 1373 | 1374 | 1375 | 1376 | 1377 | 1378 | 1379 | 1380 | 1381 | 1382 | 1383 | 1384 | 1385 | 1386 | 1387 | 1388 | 1389 | 1390 | 1391 | 1392 | 1393 | 1394 | 1395 | 1396 | 1397 | 1398 | 1399 | 1400 | 1401 | 1402 | 1403 | 1404 | 1405 | 1406 | 1407 | 1408 | 1409 | 1410 | 1411 | 1412 | 1413 | 1414 | 1415 | 1416 | 1417 | 1418 | 1419 | 1420 | 1421 | 1422 | 1423 | 1424 | 1425 | 1426 | 1427 | 1428 | 1429 | 1430 | 1431 | 1432 | 1433 | 1434 | 1435 | 1436 | 1437 | 1438 | 1439 | 1440 | 1441 | 1442 | 1443 | 1444 | 1445 | 1446 | 1447 | 1448 | 1449 | 1450 | 1451 | 1452 | 1453 | 1454 | 1455 | 1456 | 1457 | 1458 | 1459 | 1460 | 1461 | 1462 | 1463 | 1464 | 1465 | 1466 | 1467 | 1468 | 1469 | 1470 | 1471 | 1472 | 1473 | 1474 | 1475 | 1476 | 1477 | 1478 | 1479 | 1480 | 1481 | 1482 | 1483 | 1484 | 1485 | 1486 | 1487 | 1488 | 1489 | 1490 | 1491 | 1492 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

April 1976

Please thank your staff members who have responded to my survey. Please encourage your staff members who have not responded to complete and return the survey. I am sending you a first page so you will remember the survey.

Please thank your staff for taking the time to complete the survey. Thank you for distributing and responding.

Sincerely yours,

Megan H. Oberlin

MO:kg

Enc.

## BIBLIOGRAPHY

## BIBLIOGRAPHY

- Argyle, M. "The Measurement of Supervisory Methods." Human Relations 10 (1957): 295-313.
- Ash, P. "The SRA Employee Inventory: A Statistical Analysis." Personnel Psychology 7 (1954): 337-64.
- Bailey, H. D. "An Exploratory Study of Selected Components and Processes in Educational Organizations." Ph.D. dissertation, University of California, Berkeley, 1966.
- Bales, R. F.; Strodbach, F.; Mills, T.; and Roseborough, M. E. "Channels of Communication in Small Groups." American Sociological Review 16 (1951): 461-68.
- Barton, A. Organizational Measurement and Its Bearing on the Study of College Environments. New York: College Entrance Examination Board, 1961.
- Bass, B. M., and Duntzman, G. "Behavior in Groups as a Function of Self-Interaction and Task Orientation." Journal of Abnormal and Social Psychology 66 (1963): 419-28.
- Beer, M. "Organizational Size and Job Satisfaction." Academy of Management Journal 7 (1964): 34-44.
- Bell, G. B., and French, R. L. "Consistency of Individual Leadership Position in Small Groups of Varying Membership." Journal of Abnormal Psychology 45 (1950): 764-67.
- Bidwell, C. E. "The Administration Role and Satisfaction in Teaching." Journal of Educational Sociology 29 (Sept. 1955): 41-47.
- \_\_\_\_\_. "The School as a Formal Organization." In Handbook of Organizations, pp. 972-1022. Edited by J. G. Simon. Chicago: Rand McNally, College Publishing Company, 1965.
- Blocker, C. E., and Richardson, R. C. "Twenty-Five Years of Morale Research: A Critical Review." Journal of Educational Sociology 36 (Jan. 1963): 200-210.

- Borg, W. R., and Gall, M. D. Educational Research, An Introduction. New York: David McKay Company, Inc., 1973.
- Bowers, D. G., and Seashore, S. E. "Predicting Organizational Effectiveness With a Four Factor Theory of Leadership." Administrative Science Quarterly 11 (1966): 238-63.
- Briner, C., and Iannaccone, L. "Selected Social Power Relationships in Education." Educational Administration Quarterly 2 (1966): 190-203.
- Brown, A. F. "Reactions to Leadership." Educational Administration Quarterly 3 (1967): 62.
- Brown, J. S. "Union Size as a Function of Intra-Union Conflict." Human Relations (1956): 75-89.
- Browne, C. G. "Study of Executive Leadership in Business, The RAO Scales." Journal of Applied Psychology 33 (1949): 521-26.
- Campbell, J. P.; Dunnette, M. D.; Lawler, E. E.; and Weich, K. E. Managerial Behavior, Performance and Effectiveness. New York: McGraw-Hill, 1970.
- Cartwright, D. "Influences, Leadership, Control." In Handbook of Organizations, pp. 1-47. Edited by J. March. Chicago: Rand McNally, College Publishing Co., 1965.
- Chandler, B. J. "Salary Policies and Teacher Morale." Educational Administration and Supervision 45 (March 1959): 107-110.
- Charters, W. W. "Teacher Perceptions of Administrative Behavior." St. Louis: Washington University, 1964.
- Dahl, R. A. "The Concept of Power." Behavioral Science 2 (1957): 201-215.
- Dubrin, A. J. The Practice of Managerial Psychology. Elmsford, N.Y.: Pergamon Press, Inc., 1974.
- Etzioni, A. A Comparative Analysis of Complex Organizations. New York: The Free Press, 1961.
- Fast, R. G. "Leader Behavior of Principals as It Relates to Teacher Satisfaction." In Handbook of Leadership, A Survey of Theory and Research, p. 132. Edited by R. M. Stogdill. New York: The Free Press, 1974.
- Fiedler, F. E. A Theory of Leadership Effectiveness. New York: McGraw-Hill, 1967.

- \_\_\_\_\_. "Validation and Extension of the Contingency Model of Leadership Effectiveness: A Review of Empirical Findings." Psychological Bulletin 76 (1971): 128-48.
- Filley, A. C., and Grimes, A. J. "The Bases of Power in Decision Processes." Proceedings of the Annual Meeting of the Academy of Management, 1967.
- Filley, A. C., and House, R. J. Managerial Process and Organizational Behavior. Glenview, Ill.: Scott, Foresman and Co., 1969.
- Fleischman, E. A., and Harris, E. F. "Patterns of Leadership Behavior Related to Employee Grievances and Turnover." Personnel Psychology 15 (1962): 43-56.
- Fleischman, E. A.; Harris, E. F.; and Burt, H. E. Leadership and Supervision in Industry. Columbus: Ohio State University, Bureau of Educational Research, 1955.
- Flocco, E. C. "An Examination of Leader Behavior of School Business Administrators." Dissertation Abstracts International 30 (1A) (1969): 84-85.
- French, J. R. P., Jr.; Morrison, H. W.; and Levinger, G. "Coercive Power and Forces Affecting Conformity." Abnormal Psychology 61 (1960): 93-101.
- French, J. R. P., and Raven, B. "The Bases of Social Power." In Studies in Social Power. Edited by D. Cartwright. Ann Arbor: University of Michigan, Institute for Social Research, 1959.
- Garrison, K. C. "Comparative Responses of Teachers and Student Teachers to Various Items on the Teaching Situation Test." Elementary School Journal 45 (Feb. 1945): 334-39.
- Ghiselli, E. E. "Managerial Talent." American Psychologist 18 (Oct. 1963): 631-41.
- Graham, W. K. "Description of Leader Behavior and Evaluation of Leaders as a Function of LPC." Personnel Psychology 21 (1968): 457-64.
- Guion, R. M. "Industrial Morale (A Symposium) The Problem of Terminology." Personnel Psychology 11 (1958): 59-64.
- Halpin, A. W., and Croft, D. B. "The Organizational Climate of Schools." St. Louis: Washington University, 1962.



- Halpin, A. W., and Winer, B. J. "A Factorial Study of the Leader Behavior Description Questionnaire." In Leader Behavior: Its Description and Measurement. Edited by R. M. Stogdill and A. E. Coons. Columbus: Ohio State University, Bureau of Business Research, 1957.
- Harap, H. "Morale." National Schools 63 (June 1959): 55-75.
- Heller, F. A., and Yukl, G. "Participation, Managerial Decision Making, and Situational Variables." Organizational Behavior and Human Performance 4 (1969): 227-41.
- Hemphill, J. K., and Coons, A. E. "Development of the Leader Behavior Description Questionnaire." In Leader Behavior: Its Description and Measurement, pp. 6-38. Edited by R. M. Stogdill and A. E. Coons. Columbus: Ohio State University, Bureau of Business Research, 1957.
- Hickson, D. J.; Hinings, C. R.; Lee, C. A.; Schnech, R. E.; and Pennings, J. M. "A Strategic Contingencies Theory of Inter-organizational Power." Administrative Science Quarterly 19 (1973).
- Hills, R. J. "The Representative Function: Neglected Dimension of Leadership Behavior." Administrative Science Quarterly 8 (1963): 8-101.
- Hodson, M. D. "Competencies for Special Education Directors as Seen by Intermediate and Local Directors of Special Education in Michigan." East Lansing: Michigan State University, 1975.
- Hollander, E. P., and Julian, J. W. "Contemporary Trends in the Analysis of Leadership Processes." Psychological Bulletin 71 (1969): 387-97.
- Hoppoch, R. Job Satisfaction. New York: Harper, 1935.
- House, R. J., and Filley, A. C. "Leadership Style, Hierarchical Influence, and the Satisfaction of Subordinate Role Expectation: A Test of Six Leadership Hypotheses and an Analysis of Likert's Influence Proposition." Paper presented at the American Psychological Association, San Francisco, September 1968.
- House, R. J.; Filley, A. C.; and Gujarati, D. N. "Leadership Style, Hierarchical Influence and the Satisfaction of Subordinate Role Expectations." Journal of Applied Psychology 55 (1971): 422-32.

- House, R. J.; Filley, A. C.; and Kerr, S. "Relation of Leader Consideration and Initiating Structure to R and D Subordinates' Satisfaction." Administrative Science Quarterly 16 (1971): 19-30.
- Hulin, C. L. "Effects of Changes in Job Satisfaction Levels on Employee Turnover." Journal of Applied Psychology 52 (April 1968): 122-26.
- \_\_\_\_\_. "Job Satisfaction and Turnover in a Female Clerical Population." Journal of Applied Psychology 50 (1966): 280-85.
- Jackson, J. M. "The Effect of Changing the Leadership of Small Work Groups." Human Relations 6 (1953): 25-44.
- Janda, K. "Towards the Explication of the Concept of Leadership in Terms of the Concept of Power." Human Relations 13 (1960): 345-63.
- Katz, D., and Kahn, R. The Social Psychology of Organizations. New York: John Wiley and Sons, Inc., 1966.
- Katzell, R.; Barrett, R. S., and Porter, T. "Job Satisfaction, Job Performance, and Situational Characteristics." Journal of Applied Psychology 45 (April 1961): 65-72.
- Labovitz, S. "The Assignment of Numbers to Rank Order Categories." American Sociological Review 35 (1970): 515-24.
- Lawler, E. E., III. Motivation in Work Organizations. Belmont, Cal.: Wadsworth Publishing Co., 1973.
- \_\_\_\_\_, and Porter, L. W. "The Effect of Performance on Job Satisfaction." Industrial Relations 7 (1967): 20-28.
- Lawrence, R. K., and Lorsch, J. W. "Differentiation and Integration in Complex Organizations." Administrative Science Quarterly 12 (1967): 1-47.
- Lazerfield, P. F., and Thielens, S., Jr. The Academic Mind. Glencoe, Ill.: The Free Press, 1958.
- Levine, E. L. "Problems of Organizational Control in Microcosm: Group Performance and Group Member Satisfaction as a Function of Differences in Control Structure." Journal of Applied Psychology 58 (1973): 186-96.
- Likert, R. "Influence and National Sovereignty." Edited by J. C. Peatman and E. L. Hartley. New York: Featschrift for Gardner Murphy, 1960.

- \_\_\_\_\_. New Patterns in Management. New York: McGraw-Hill, 1961.
- \_\_\_\_\_, and Willits, J. M. "Morale and Agency Management," Vol. 1, Morale--The Mainspring of Management. Hartford Life Insurance, Sales Research Bureau, 1940. In Work and Motivation. Edited by V. Vroom. New York: John Wiley and Sons, 1964.
- Loche, E. A. "What Is Job Satisfaction?" Organizational Behavior and Human Performance 4 (1969): 309-36.
- Lowen, A.; Hrapchak, W. J.; and Kavanagh, M. J. "Consideration and Initiating Structure: An Experimental Investigation of Leadership Traits." Administrative Science Quarterly 14 (1969): 238-53.
- Luckie, W. R. "Leader Behavior of Director of Instruction." Dissertation Abstracts 25 (1963): 1960.
- Mann, F. C. "Toward an Understanding of the Leadership Role in Formal Organizations." In Leadership and Productivity. Edited by R. Dubrin. San Francisco: Chandler, 1965.
- March, J. G., and Simon, H. A. Organizations. New York: Wiley, 1958.
- Mathis, C. "The Relationship Between Salary Policies and Teacher Morale." Journal of Educational Psychology 50 (Dec. 1959): 275-79.
- McCluskey, H. Y.; and Strayer, F. J. "Reactions of Teachers to the Teaching Situations: A Study of Job Satisfaction." School Review 48 (Oct. 1940): 112-23.
- Meuwese, W. A. T., and Fiedler, F. E. Leadership and Group Creativity Under Varying Conditions of Stress. Technical Report 1965. Urbana: University of Illinois, Group Effectiveness Research Laboratory, 1965.
- Moore, J. V., and Smith, R. G. "Aspects of Non-Commissioned Officer Leadership." In Managerial Process and Organizational Behavior. Edited by A. Filley, R. House, and S. Kerr. Glenview, Ill.: Scott, Foresman and Co., 1952.
- Morse, M., and Reimer, E. "The Experimental Change of a Major Organizational Variable." Journal of Abnormal Social Psychology 52 (1956): 120-29.
- Nahabetian, H. J. "The Effects of a Leader's Upward Influence on Group Member Satisfaction and Task Facilitation." Rochester, N.Y.: University of Rochester, 1967.

- Nezzer, M. Determinants of Global Satisfaction: Organizational Differences. Minneapolis: University Industrial Relations Center, 1971.
- Patchen, M. "Alternative Questionnaire Approaches to the Measurement of Influence in Organizations." American Journal of Sociology 69 (1963): 41-52.
- \_\_\_\_\_. "The Locus and Basis of Influence on Organizational Decisions." Organizational Behavior and Human Performance 11 (1974): 195-221.
- \_\_\_\_\_. "Supervisory Methods and Group Performance Norms." Administrative Science Quarterly 7 (1962): 275-94.
- Porter, L. W. "A Study of Perceived Need Satisfaction in Bottom and Middle Management Jobs." Journal of Applied Psychology 45 (1961): 1-10.
- \_\_\_\_\_; Lawler, E. E., III; and Hackman, J. R. Behavior in Organizations. New York: McGraw-Hill, Inc., 1975.
- Robinson, J. P.; Athanasiou, R.; and Head, K. Measures of Occupational Attitudes and Occupational Characteristics. Ann Arbor, Mich: Survey Research Center, Institute of Social Research, 1969.
- Schaffer, R. H. "Job Satisfaction as Related to Need Satisfaction in Work." Psychological Monographs 67 (1963).
- Seaman, M. "A Comparison of General and Specific Leader Behavior Description." In Leader Behavior, Its Description and Measurement. Edited by R. M. Stogdill and E. A. Coons. Columbus: Ohio State University, Bureau of Business Research, 1957.
- Shima, H. "The Relationship Between the Leader's Modes of Interpersonal Cognition and the Performance of the Group." In Handbook of Leadership, A Survey of Theory and Research. Edited by R. M. Stogdill. New York: The Free Press, 1974.
- Smith, P. C. "The Development of a Method of Measuring Job Satisfaction: The Cornell Studies." In Studies in Personnel and Industrial Psychology. Rev. ed. Edited by E. A. Fleishman. Homewood, Ill.: Dorsey, 1967.
- \_\_\_\_\_; Kendall, L.; and Hulin, C. L. The Measurement of Satisfaction in Work and Retirement: A Strategy for the Study of Attitudes. Chicago: Rand McNally and Co., 1969.

- Spicknall, H. S. "The Relationship Between Innovativeness, Organizational Climate Factors, and Communications Variables in Intermediate School Departments of Special Education in Michigan." East Lansing: Michigan State University, 1970.
- Steers, R., and Porter, L. Motivation and Work Behavior. New York: McGraw-Hill, Inc., 1975.
- Stogdill, R. M. Handbook on Leadership. New York: Macmillan, 1974.
- \_\_\_\_\_. Individual Behavior and Group Achievement. New York: Oxford University Press, 1959.
- \_\_\_\_\_. Managers, Employees, Organizations. Columbus: Ohio State University, Bureau of Business Research, 1965.
- \_\_\_\_\_. Manual for the Leader Behavior Description Questionnaire Form XII. Columbus: Ohio State University, Bureau of Business Research, 1963.
- \_\_\_\_\_.; Goode, O. S.; and Day, D. R. "New Leader Behavior Description Subscales." Journal of Psychology 54 (1962): 259-69.
- Strauss, G. "Some Notes on Power Equalization." In The Social Science of Organizations: Four Perspectives. Edited by H. J. Leuvitt. Englewood Cliffs, N.J.: Prentice-Hall, 1964.
- Tannenbaum, A. S. "The Concept of Organizational Control." Journal of Social Issues 12 (1956): 50-60.
- \_\_\_\_\_. "Control and Effectiveness in a Voluntary Organization." American Journal of Sociology 67 (1961): 33-46.
- \_\_\_\_\_. "Control in Organizations: Individual Adjustment and Organizational Performance." Administrative Science Quarterly 7 (1962): 236-57.
- \_\_\_\_\_. Control in Organizations. New York: McGraw-Hill, Inc., 1968.
- \_\_\_\_\_. and Georgopoulos, B. S. "The Distribution of Control in Organizations." Social Forces 36 (1957): 44-50.
- Taylor, M.; Crook, R.; and Drophin, S. "Assessing Emerging Leadership Behavior in Small Discussion Groups." Journal of Educational Psychology 52 (1961): 12-18.
- Thompson, J. D. Organization in Action. New York: McGraw-Hill, 1967.

- Tufte, E. R., ed. The Quantitative Analysis of Social Problems. Reading, Mass.: Addison-Wesley, 1970.
- Vaughn, W. J., and Dunn, J. D. A Conceptual Framework for Monitoring Job Satisfaction Research in Ongoing Organizations. Denton: North Texas University, 1972.
- Vroom, V. H. Work and Motivation. New York: John Wiley and Sons, Inc., 1964.
- Wanger, L. W. "Leadership Style, Influence and Supervisory Role Obligations." Administrative Science Quarterly 9 (1965): 391-420.
- Wanous, J. P., and Lawler, E. E., III. "Measurement and Meaning of Job Satisfaction." Journal of Applied Psychology 56 (1972): 95-105.
- Warren, D. "Power, Visibility and Conformity in Formal Organizations." American Sociological Review 33 (1968): 951-70.
- Weiss, D. S.; Davies, R. V.; England, G. W.; and Lofquist, L. H. "The Measurement of Vocational Needs." Minneapolis: University of Minnesota, Studies in Vocational Rehabilitation, 1964.
- Williams, L.; Hoffman, R.; and Mann, T. "An Investigation of the Control Graph: Influence in a Staff Organization." Social Forces 37 (1959): 189-95.
- Yukl, G. A. "Leader Personality and Situational Variables as Co-Determinants of Leader Behavior." Dissertation Abstracts 29 (13) (1968): 406.
- \_\_\_\_\_. "Toward a Behavioral Theory of Leadership." Organizational Behavior and Human Performance 6 (1971): 414-40.
- Zald, M. N. Power in Organizations. Nashville, Tenn.: Vanderbilt University Press, 1969.