



An investigation of teachers sense of efficacy, principal leadership behaviors, and the professional zone of acceptance of teachers  
by Theresa JoAnne Greenwood

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education  
Montana State University  
© Copyright by Theresa JoAnne Greenwood (1990)

**Abstract:**

This study investigated an expanded concept of teachers' sense of efficacy which included both professional and organizational efficacy. The study hypothesized that teachers who were at different levels of efficacy would have differing perceptions of a principal's leader behaviors and differing zones of acceptance of unilateral decision making by that principal. Professional efficacy was defined as the belief a teacher holds regarding his/her ability to perform instructional tasks in the classroom in order to gain learning achievement from all students. Organizational efficacy referred to a teacher's belief regarding his/her ability to influence superiors in the school organization in order to gain desired outcomes on professional decisions. The dependent variable of leader behaviors was measured using Stogdill's LBDQ-Form XII. The range of a teacher's acceptance of unilateral decision making was measured with the PZAI developed by Kunz and Hoy.

The study surveyed a sample of 400 Montana public school teachers. The sample was stratified on the following variables: gender, instructional level (secondary or elementary), and size of school organization (established by student enrollment). Further, the study investigated whether the variables of gender, years of experience, and organizational size made a significant difference in a teacher's sense of efficacy. Participants in the study completed a mailed survey instrument. The response rate was 80 percent.

Based on an analysis involving Chi-Square, One-Way ANOVA, and Two-Way ANOVA, the following conclusions were drawn. Teachers who were organizationally efficacious or efficacious tended to perceive their principals as significantly higher on the person-oriented leader behavior dimensions of the LBDQ-Form XII. Efficacy levels did not influence a teacher's zone of acceptance in regard to the principal's unilateral decision making.

**AN INVESTIGATION OF TEACHERS' SENSE OF EFFICACY,  
PRINCIPAL LEADERSHIP BEHAVIORS, AND THE  
PROFESSIONAL ZONE OF ACCEPTANCE  
OF TEACHERS**

by

**Theresa JoAnne Greenwood**

**A thesis submitted in partial fulfillment  
of the requirements for the degree**

of

**Doctor of Education**

**MONTANA STATE UNIVERSITY  
Bozeman, Montana**

**July 1990**

D378  
G8597

APPROVAL

of a thesis submitted by

Theresa JoAnne Greenwood

This thesis has been read by each member of the graduate committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

7/23/90      Donald Robson  
Date                      Chairperson, Graduate Committee

Approved for the Major Department

7/23/90      Donald Robson  
Date                      Head, Major Department

Approved for the College of Graduate Studies

August 9, 1990      Henry L. Parsons  
Date                      Graduate Dean

## STATEMENT OF PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a doctoral degree at Montana State University, I agree that the Library shall make it available to borrowers under rules of the Library. I further agree that copying of this thesis is allowable only for scholarly purposes, consistent with "fair use" as prescribed in the U.S. Copyright Law. Requests for extensive copying or reproduction of this thesis should be referred to University Microfilms International, 300 North Zeeb Road, Ann Arbor, Michigan 48106, to whom I have granted "the exclusive right to reproduce and distribute copies of the dissertation in and from microfilm and the right to reproduce and distribute by abstract in any format."

Signature

Theresa J. Greenwood

Date

7/23/90

## ACKNOWLEDGEMENTS

I would like to express my appreciation to each of my graduate committee members -- Drs. Donald Robson, Eric Strohmeyer, Gloria Gregg, Leroy Casagrande, Robert Thibeault, and Norman Millikin. They have been patient, generous with their time, and always ready with an encouraging word despite their busy schedules. I especially want to thank my chairperson, Dr. Donald Robson, who has been very patient and who unstintingly gave me time and support even when I was doubtful, critical, and negative.

Deep appreciation is extended to the 322 Montana public school teachers who took time to respond to the 15-page instrument. Without their cooperation, no study on this topic could have been accomplished.

Finally, I wish to acknowledge the special support I received from friends and family. My sister-in-law, Kathy Perkins Greenwood, seemed to unflinchingly know when the dissertation road was becoming very rough for me, because on those days I invariably received a telephone call from her with brisk words of encouragement. Dr. Ruth Johnson devoted one winter Saturday to calming my fears, joking with me, and helping me over the formatting hump of tables. My friend, Jan Counter, always had time to listen, sympathize, and understand. While I have specifically acknowledged the foregoing individuals, I also want to thank the many others of my friends and family who gave me their prayers and encouragement. Without such support, I could not have completed this study.

## TABLE OF CONTENTS

	Page
APPROVAL .....	ii
STATEMENT OF PERMISSION TO USE .....	iii
ACKNOWLEDGEMENTS .....	iv
TABLE OF CONTENTS .....	v
LIST OF TABLES .....	viii
LIST OF FIGURES .....	xvii
ABSTRACT .....	xviii
CHAPTER:	
1. INTRODUCTION .....	1
Conceptual Framework for Study .....	1
The Teacher Today .....	10
The Issue of Teacher Quality .....	11
The Issue of Workplace Commitment .....	12
Importance of Understanding Teachers' Inefficacy in Relation to Reform Efforts .....	19
Major Problem of Study .....	22
The Construct of Self-Efficacy .....	24
The Variable of Leadership .....	29
Statement of the Problem .....	32
General Questions to Be Answered .....	32
General Procedures .....	34
Population and Sampling .....	35
Measurement of Independent Variables .....	36
Measurement of Dependent Variables .....	37
Limitations and Delimitations of Study .....	38
Definition of Terms .....	39

TABLE OF CONTENTS--Continued

	Page
2. REVIEW OF LITERATURE .....	42
Self-Management and the Role of "Self" in Work	
Organizations .....	42
Self-Efficacy .....	47
Issue of Locus of Control .....	47
Dimensions of Self-Efficacy .....	48
Sources of Self-Efficacy .....	48
Self-Efficacy and Performance .....	53
Self-Efficacy and Choice .....	55
Factors Involved in Perceived Inefficacy and Dysfunc-	
tion in the Workplace .....	56
Leadership .....	59
Two Root Traditions of Leadership .....	60
The Trait Approach .....	65
The Study of Leadership Styles .....	66
The Study of Effective Leader Behaviors .....	70
The Michigan Studies .....	75
The Investigation of Situational Issues .....	76
Participative Leadership Situations .....	77
Fiedler and the Contingency Approach to Leadership ..	81
Path-Goal Leadership Research .....	83
The Operant Conditioning Approach to Leadership .....	92
Perceptual and Cognitive Theories of Leadership .....	93
Attribution Theory of leadership .....	93
Cognitive Resource Theory of leadership .....	95
Charismatic and Transformational Theories of	
leadership .....	97
The Study of Leadership in the Field of Education .....	102
Conclusion .....	104
3. PROCEDURES .....	107
Introduction .....	107
Population Description and Sampling Procedures .....	108
Definition of Categories .....	116
Self-Efficacy .....	117
Leadership Behaviors .....	118
Professional Zone of Acceptance .....	121

TABLE OF CONTENTS--Continued

	Page
Years of Experience .....	121
Methods of Collecting Data .....	122
Measuring the Variables .....	126
Methods for Organizing Data .....	132
Statistical Hypotheses .....	132
Analysis of Data .....	134
Precautions Taken for Accuracy .....	136
4. ANALYSIS OF DATA .....	137
Introduction .....	137
Description of Sample .....	138
Statistical Analyses of Hypotheses .....	142
5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS .....	193
Demographic Information on Surveyed Teachers .....	198
Conclusions .....	200
Implications of Teachers' Sense of Efficacy in Relation to Reform Efforts .....	229
Recommendations for Practice .....	233
Recommendations for Further Research .....	236
REFERENCES .....	239
APPENDICES:	
A. SURVEY INSTRUMENT .....	269
B. CONTACT LETTER, INITIAL MAILOUT .....	287
C. POSTCARD FOLLOW-UP .....	290
D. CONTACT LETTER, SECOND MAILOUT .....	292
E. CONTACT LETTER, THIRD MAILOUT .....	294
F. MONTANA SCHOOL DISTRICTS INCLUDED IN STUDY ...	296
G. LETTER GRANTING PERMISSION TO USE PZAI .....	298

## LIST OF TABLES

Table		Page
1.	Hoy and Miskel's categorizations of Stogdill's leadership dimensions and descriptions .....	69
2.	Representative reliability coefficients for subscales of LBDQ-Form XII .....	130
3.	Chi square test of independence for gender by efficacy level .....	143
4.	Chi square test of independence for years of teaching experience by efficacy level .....	143
5.	Chi square test of independence for organizational size by efficacy level .....	144
6.	Summary of ANOVA means for LBDQ-Form XII leader behavior subscales .....	145
7.	One-way ANOVA for efficacy levels as measured by LBDQ Subscale 1, Representation .....	145
8.	One-way ANOVA for efficacy levels as measured by LBDQ Subscale 2, Demand Reconciliation .....	146
9.	One-way ANOVA for efficacy levels as measured by LBDQ Subscale 3, Tolerance of Uncertainty .....	146
10.	One-way ANOVA for efficacy levels as measured by LBDQ Subscale 4, Persuasiveness .....	147
11.	One-way ANOVA for efficacy levels as measured by LBDQ Subscale 5, Initiation of Structure .....	147

LIST OF TABLES--Continued

Table	Page
12. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 6, Tolerance of Freedom .....	148
13. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 7, Role Assumption .....	148
14. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 8, Consideration .....	149
15. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 9, Production Emphasis .....	149
16. One-Way ANOVA for efficacy levels as measured by LBDQ Subscale 10, Predictive Accuracy .....	150
17. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 11, Integration .....	150
18. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 12, Superior Orientation .....	151
19. Means of Professional Zone of Acceptance Inventory scores for each efficacy group .....	152
20. One-way ANOVA for efficacy levels as measured by the score on the Professional Zone of Acceptance Inventory .....	152
21. Table of means for representation by level of efficacy and gender .....	153
22. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 1, Representation .....	153
23. Table of means for demand reconciliation by level of efficacy and gender .....	153

## LIST OF TABLES--Continued

Table	Page
24. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 2, Demand Reconciliation . . .	154
25. Table of means for tolerance of uncertainty by level of efficacy and gender . . . . .	154
26. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 3, Tolerance of Uncertainty . . . . .	154
27. Table of means for persuasiveness by level of efficacy and gender . . . . .	156
28. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 4, Persuasiveness . . . . .	156
29. Table of means for initiation of structure by level of efficacy and gender . . . . .	157
30. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 5, Initiation of Structure . . . . .	157
31. Table of means for tolerance of freedom by level of efficacy and gender . . . . .	158
32. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 6, Tolerance of Freedom . . . . .	158
33. Table of means for role assumption by level of efficacy and gender . . . . .	159
34. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 7, Role Assumption . . . . .	159
35. Table of means for consideration by level of efficacy and gender . . . . .	159

LIST OF TABLES--Continued

Table	Page
36. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 8, Consideration . . . . .	160
37. Table of means for production emphasis by level of efficacy and gender . . . . .	160
38. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 9, Production Emphasis . . . . .	161
39. Table of means for predictive accuracy by level of efficacy and gender . . . . .	161
40. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 10, Predictive Accuracy . . . . .	161
41. Table of means for integration by level of efficacy and gender . . . . .	162
42. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 11, Integration . . . . .	162
43. Table of means for superior orientation by level of efficacy and gender . . . . .	163
44. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 12, Superior Orientation . . . . .	163
45. Table of means for Professional Zone of Acceptance Inventory by level of efficacy and gender . . . . .	164
46. Two-way ANOVA for efficacy levels and gender as measured by Professional Zone of Acceptance Inventory . . . . .	164
47. Table of means for representation by level of efficacy and years of experience . . . . .	165

## LIST OF TABLES--Continued

Table	Page
48. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 1, Representation .....	166
49. Table of means for demand reconciliation by level of efficacy and years of experience .....	166
50. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 2, Demand Reconciliation .....	167
51. Table of means for tolerance of uncertainty by level of efficacy and years of experience .....	167
52. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 3, Tolerance of Uncertainty .....	168
53. Table of means for persuasiveness by level of efficacy and years of experience .....	168
54. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 4, Persuasiveness .....	169
55. Table of means for initiation of structure by level of efficacy and years of experience .....	169
56. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 5, Initiation of Structure .....	170
57. Table of means for tolerance of freedom by level of efficacy and years of experience .....	170
58. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 6, Tolerance of Freedom .....	171

LIST OF TABLES--Continued

Table	Page
59. Table of means for role assumption by level of efficacy and years of experience .....	171
60. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 7, Role Assumption .....	172
61. Table of means for consideration by level of efficacy and years of experience .....	172
62. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 8, Consideration .....	173
63. Table of means for production emphasis by level of efficacy and years of experience .....	173
64. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 9, Production Emphasis .....	174
65. Table of means for predictive accuracy by level of efficacy and years of experience .....	174
66. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 10, Predictive Accuracy .....	175
67. Table of means for integration by level of efficacy and years of experience .....	175
68. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 11, Integration .....	176
69. Table of means for superior orientation by level of efficacy and years of experience .....	176

LIST OF TABLES--Continued

Table	Page
70. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 12, Superior Orientation .....	177
71. Table of means for Professional Zone of Acceptance Inventory by levels of efficacy and years of experience .....	178
72. Two-way ANOVA for efficacy levels and years of experience as measured by Professional Zone of Acceptance Inventory .....	178
73. Table of means for representation by level of efficacy and organizational group .....	179
74. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 1, Representation .....	179
75. Table of means for demand reconciliation by level of efficacy and organizational group .....	180
76. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 2, Demand Reconciliation .....	180
77. Table of means for tolerance of uncertainty by level of efficacy and organizational group .....	181
78. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 3, Tolerance of Uncertainty .....	181
79. Table of means for persuasiveness by level of efficacy and organizational group .....	182
80. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 4, Persuasiveness .....	182

LIST OF TABLES--Continued

Table	Page
81. Table of means for initiation of structure by level of efficacy and organizational group . . . . .	183
82. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 5, Initiation of Structure . . . . .	183
83. Table of means for tolerance of freedom by level of efficacy and organizational group . . . . .	184
84. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 6, Tolerance of Freedom . . . . .	184
85. Table of means for role assumption by level of efficacy and organizational group . . . . .	185
86. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 7, Role Assumption . . . . .	185
87. Table of means for consideration by level of efficacy and organizational group . . . . .	187
88. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 8, Consideration . . . . .	187
89. Table of means for production emphasis by level of efficacy and organizational group . . . . .	188
90. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 9, Production Emphasis . . . . .	188
91. Table of means for predictive accuracy by level of efficacy and organizational group . . . . .	189

## LIST OF TABLES--Continued

Table	Page
92. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 10, Predictive Accuracy .....	189
93. Table of means for integration by level of efficacy and organizational group .....	190
94. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 11, Integration .....	190
95. Table of means for superior orientation by level of efficacy and organizational group .....	191
96. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 12, Superior Orientation .....	191
97. Table of means for Professional Zone of Inventory by levels of efficacy and organizational group .....	192
98. Two-way ANOVA for efficacy levels and organizational group as measured by Professional Zone of Acceptance Inventory .....	192
99. Montana school districts included in the study and their enrollments .....	297

## LIST OF FIGURES

Figure		Page
1.	Bandura's conceptualization of reciprocal interaction for self-efficacy .....	45
2.	Composition of sample as compared to defined population (1988-89) .....	139
3.	Pattern of response of sample (1988-89) .....	141
4.	Interaction figure for gender and levels of efficacy as measured by LBDQ Subscale 2, Demand Reconciliation .....	155
5.	Interaction figure for organizational group and levels of efficacy as measured by LBDQ Subscale 7, Role Assumption .....	186

## ABSTRACT

This study investigated an expanded concept of teachers' sense of efficacy which included both professional and organizational efficacy. The study hypothesized that teachers who were at different levels of efficacy would have differing perceptions of a principal's leader behaviors and differing zones of acceptance of unilateral decision making by that principal. Professional efficacy was defined as the belief a teacher holds regarding his/her ability to perform instructional tasks in the classroom in order to gain learning achievement from all students. Organizational efficacy referred to a teacher's belief regarding his/her ability to influence superiors in the school organization in order to gain desired outcomes on professional decisions. The dependent variable of leader behaviors was measured using Stogdill's LBDQ-Form XII. The range of a teacher's acceptance of unilateral decision making was measured with the PZAI developed by Kunz and Hoy.

The study surveyed a sample of 400 Montana public school teachers. The sample was stratified on the following variables: gender, instructional level (secondary or elementary), and size of school organization (established by student enrollment). Further, the study investigated whether the variables of gender, years of experience, and organizational size made a significant difference in a teacher's sense of efficacy. Participants in the study completed a mailed survey instrument. The response rate was 80 percent.

Based on an analysis involving Chi-Square, One-Way ANOVA, and Two-Way ANOVA, the following conclusions were drawn. Teachers who were organizationally efficacious or efficacious tended to perceive their principals as significantly higher on the person-oriented leader behavior dimensions of the LBDQ-Form XII. Efficacy levels did not influence a teacher's zone of acceptance in regard to the principal's unilateral decision making.

## CHAPTER 1

### INTRODUCTION

*All other reforms are conditioned upon reforms in the quality and character of those who engage in the teaching profession. Just because education is the most personal, the most intimate of all affairs; there, more than anywhere else, the sole ultimate reliance and final source of power is in the training, character, and intelligence of the individual teacher. . . . But as long as the school organization . . . tends to repel all those of independent force, of intellectual ability, or tends to hamper them in their work . . . so long will all other reforms be compromised at their start. . . . (Dewey, 1949, p. 37)*

#### Conceptual Framework for Study

Throughout the 1980s, criticizing education and the individuals who work in education has been a growth industry in this country. Reports from commissions (i.e., National Commission on Excellence in Education, 1983; College Entrance Examination Board, 1983), manifestos from almost everybody (i.e., Adler, 1982; Maeroff, 1982), and research studies (i.e., Boyer, 1983; Goodlad, 1984; Sizer, 1984) sounded the alarm bells early in the decade. A national depression in learning was diagnosed. SAT scores, declining since early in the 1960s, plunged to an all-time low in 1980. Thirteen percent of the nation's high school graduates were declared to read

and write at a sixth grade level. In public four-year colleges, remedial math courses had increased 72 percent between 1975 and 1980. Matched against other industrialized nations, American students placed last in 7 out of 19 academic tests -- and first in none of them (Gross and Gross, 1985). Exacerbating an already bad situation, the framework of this educational crisis developed while Americans were caught in the nation's worst economic recession since the 1930s. Consequently, educational and social policymakers easily connected the failures of education with the idea of an entire nation at risk. A few months before his retirement late in 1984, U.S. Secretary of Education Terrell Bell observed:

Human intelligence is the prime resource in this country. It's not the natural resources anymore that count -- it's human intelligence. And we're faced with competitors -- in other nations. And we're one global village. Maybe our time has passed, as has happened in other civilizations. And whether we can renew ourselves and regain our vigor as a nation, I think largely depends on how well we educate our people. (Frady et al., 1985, p. 3)

Properly alarmed, the American public agreed something must be done about the schools. This initial reform agenda saw the schools as organizationally sound but, due to a variety of reasons, slothful. Consequently, tough-talking federal and state educational policymakers worked with the elected representatives of the people, the state legislators, to mandate a dizzying number of standard-tightening reforms to shore up accountability in the areas of academic standards, curriculum requirements and teacher worthiness. These changes, policymakers claimed, would improve student achievement

in the nation's classrooms and make America competitive again. While the policymakers of this reform agenda had high hopes, more cautious laborers in the educational vineyards had serious reservations. Historians like Diane Ravitch (1983) traced a cyclical nature to public education reform movements with little actually being accomplished. Larry Cuban (1988a, 1990) noted "a fundamental puzzle" connected with all reform agendas in the public schools:

Set aside the vocabulary of crisis and the clever images of rising tides of mediocrity, however, and few of those aggressive cheerleaders for current reforms could say that the governance of schools, the way teachers teach, or the organizational structures of schooling have substantially changed over the last century. . . . How can it be, then, that so much school reform has taken place over the last century, yet schooling appears to be pretty much the same as it always has been? (Cuban, 1988a, p. 341)

The guardedly cautious critics of the initial reform agendas of the 1980s were confirmed in their caution by the end of the decade. Seven years after reform steps were initiated, the most recent studies on student achievement do not chart any marked improvement. A major study funded by the National Endowment for the Humanities found that almost 50 percent of American 17-year-olds could not correctly identify the half-century in which the American Civil War occurred (Ravitch and Finn, 1987, p. 47). Dropout rates in the nation's most at-risk school district, Chicago (according to then Secretary of Education William Bennett), approach 50 percent (Beck and Springen, 1988, p. 57). In a major survey querying teachers about the mandated reform

efforts of the early 1980s, "Report Card on School Reform," researchers from the Carnegie Foundation disclosed a dark assessment of "first-wave" reform. Teachers awarded the initial reform agenda only a C grade, noting they were more "dispirited" and "less empowered" than five years ago (Carnegie Foundation, 1988). David T. Kearns, President of Xerox and member of the board developing a national certification policy for teachers which was established as a result of another Carnegie report, said, "The first wave of reform has broken over the nation's public schools, leaving a residue of incremental changes and an outmoded educational structure still firmly in place" (Kearns, 1988b, p. 565). The 1989 National Assessment of Educational Progress (NAEP) report, *Crossroads in American Education* (Mullis, 1989), presented only two pieces of good news. Blacks and Hispanics have made great strides in basic reading and writing in the past 20 years. The gap between whites and these two minority groups narrowed to half of what it was 20 years ago. The other piece of good news was that most students could read simple material and do basic adding, subtracting, multiplying and dividing with whole numbers. Otherwise, as Shanker (1990) noted, the results were "dismaying."

Schools are now embarking on a "second wave of reform" (Lieberman, 1988b, p. 648; Kearns, 1988b, p. 565) with a far more ambitious agenda.

The second wave must produce strategic changes that restructure the way our schools are organized and operate. It must create a new public school system

characterized by accountability and performance.  
(Kearns, 1988b, p. 566)

Whereas the first-wave reform agendas stressed adding courses, changing requirements, monitoring teacher effectiveness more closely, and rethinking curriculum and instruction (particularly in the high school), second-wave reform agendas focus on the teaching profession and redefining organizational roles and relationships within the school structure in order to obtain higher commitment from the teaching work force. The organizational agenda of second-wave reform is more ambitious than the early 1980's reform which simply focused on developing greater organizational efficiency and effectiveness by forcing greater accountability. As students of organizational change have noted, first order changes try to make what already *is* more efficient and more effective without disturbing the status quo too much. Second order changes focus on so-called "deep structure" issues and attempt to alter basic ways in which the organization functions (Watzlawick et al., 1974). Policy-makers who proposed the first-wave reform measures viewed the schools as being essentially sound and felt the organizational structuring of the schools was adequate. The second-wave reformers in education mirror deep dissatisfactions with the effectiveness of current school practices and organization; indeed, these reformers hypothesize that a key problem in the schools is *the* existing model of school organization.

Significant gains in student achievement may well require basic changes in the ways schools are governed and organized -- in the authority entrusted to them, the

objectives imposed upon them, and the professional discretion they are granted. Such changes would, however, threaten the security of political representatives and education administrators whose positions are tied to the existing system and who now hold the reins of reform. (Chubb, 1988, p. 29)

Albert Shanker (1990) believes that the signs are unmistakable. He asserts that public education will either improve or be destroyed, citing the 1986 Carnegie report, *A Nation Prepared*, as starkly presenting the reason the schools must improve:

If our standard of living is to be maintained, if the growth of a permanent underclass is to be averted, if democracy is to function effectively in the next century, our schools must graduate the vast majority of students with achievement levels long thought possible for only a privileged few. (Shanker, 1990, p. 347)

Clearly, strong pressures exist for continuing to tinker with the schools -- and the tinkering now being advocated would drastically change the working relationships between schoolteachers and their supervisors, the school administrators.

Perhaps the most influential reports outlining second-wave reform agendas are *Tomorrow's Teachers: A Report of the Holmes Group* (Holmes Group, Inc., 1986) and *A Nation Prepared: Teachers for the 21st Century* (Carnegie Forum on Education and the Economy, 1986). Both reports focus on teachers as the critical components in effectively getting the schools to function. *Tomorrow's Teachers* addresses the necessity for reforming teacher education in order to develop a group of teachers who are well-trained in the knowledge base of pedagogy. *A Nation Prepared* focuses on the actual

practice of teaching in the educational workplace. Its policymakers advocate a restructuring of the school organization's leadership roles so as to foster increased professional growth and work commitment in teachers via empowerment of the teacher. Both reports advocate the development of a far more knowledgeable teaching force who will assume an active leadership role in the larger school organization. *A Nation Prepared* presents the following vision of a professional teacher:

Teachers must think for themselves if they are to be able to help others think for themselves, be able to act independently and collaborate with others, and render critical judgment. They must be people whose knowledge is wide-ranging and they must be able to learn all the time. . . . Teachers will not come to school knowing all that they have to know, but knowing how to figure out what they need to know, where to get it, and how to help others make meaning of it. (Carnegie Forum, 1986, p. 25)

The agenda of *A Nation Prepared* looks critically at the teacher-administrator relationship and suggests that teachers need increased organizational empowerment. It advocates teachers assuming a much wider organizational role professionally, a role that would take the teacher out of the classroom far more. However, just as Chubb (1988) suggested, the second-wave reform measures concerning school restructuring advocated in *A Nation Prepared* are largely being resisted by educational administrators. Immediately after the release of *A Nation Prepared*, Scott D. Thomson of the National Association of Secondary School Principals suggested:

. . . the Carnegie task force unfortunately assumes that principals and teachers are adversaries in seeking a better blueprint for schools. It somehow believes that if

the teacher's role grows in prominence, the role of the principal must shrink. (Thomson, 1986, p. 6)

In an attempt to initiate second-wave reform agendas, the Rochester school district in New York state underwent a lawsuit initiated by the local school administrator's association. The lawsuit challenged a master teacher/peer supervisor model program the district superintendent was implementing in conjunction with the teacher group. The model program allowed classroom teachers without any type of administrative endorsement to perform supervisory work with beginning teachers in the district ("New York Lawsuit. . .," 1987).

However, despite these challenges, increasing support for the second-wave reform agendas has developed in the business sector. This support is important since researchers in organizational change maintain that educational organizations, like most public-supported, institutionalized organizations, tend to respond to externally-mounted change demands more frequently than to internally-mounted change demands. This willingness to respond to external change demands is present because of the need in these organizations to maintain the support and faith of the external environments on which they depend for survival (Meyer and Rowan, 1977). Most recently, business-based commentators on educational concerns argue that the way schools are organized is the *critical* reason why so many schools are ineffective despite the increasing financial and resource commitment society has made to the schools in the last eight years (Kolderie, 1987). David T. Kearns and Denis P. Doyle, in stating the business perspective on improving schools, argued:

From a business perspective the education system presents an alarming picture. It is one in which too little is expected of too many, results are sacrificed to bureaucratic convenience, and professionalism -- particularly teacher professionalism -- is discouraged. The system is just not failing a large number of students . . . it is failing dedicated teachers as well. (Kearns and Doyle, 1988, p. 32)

Close analysis of the reform story shows first-wave reform was the reform response mounted by the administrators and the leadership group within the educational structure in conjunction with elected representatives, the legislators. Their goal was to make the organization more efficient and effective by monitoring both teachers and students more closely -- a solid managerial objective. However, in light of the fact that a second-wave reform now exists, it is obvious the first-wave agenda has been ineffective. The second-wave reform objectives are largely being generated by higher education policymakers (The Holmes Group) who are more tenuously connected to the organizational structure of the schools or by external policymakers (The Carnegie Foundation and individuals from business, teachers, and citizens from the larger society who authored *A Nation Prepared*). The agenda of this second-wave reform is aimed at fundamental change in the school organization, a fact which is clearly recognized by the major power stakeholders in the current organizational structure (Thomson, 1986; "New York Lawsuit. . .," 1987; Rodman, 1987; Shanker, 1990). In this second-wave reform analysis, the recognized school leaders -- the administrators -- are frequently depicted as the villains in the piece, contributing to the

schools' problems by fostering the development of low workplace commitment via inappropriate organizational actions (Chubb, 1988; Ashton and Webb, 1986). Because the goals of second-wave reform are challenging the status quo, it is critical that those goals be generated based on solid knowledge of what teachers' actual beliefs and perceptions of their organizational experiences and organizational leaders are. However, even a cursory examination of past educational reform efforts indicates that, generally, reform in education has most frequently been established without such knowledge (Callahan, 1962; Ravitch, 1983; Deal, 1986; Cuban, 1990). Therefore, if second-wave reform agendas are not to be discredited and viewed as unsuccessful, more information needs to be accumulated concerning how teachers actually view their organizations and their leaders in those organizations.

### The Teacher Today

The recent shifting of the teachers' status from being a *cause* of the problem to being a *victim* of the system is a result of an accumulation of research findings which reflect several alarming trends in the teacher workforce. These findings clearly indicate both a decline in (1) teacher quality and (2) teacher workplace commitment. These declines are viewed as precursors to the development in teachers of the corrosive belief that teaching is not a critical factor in student learning and academic achievement. The

belief that teaching does not matter has been shown to have a direct relationship with lower achievement in students (Ashton & Webb, 1986).

### The Issue of Teacher Quality

The need for increased teacher commitment, which second-wave reformers use to make their case for deep-structure change in the public schools, is fueled by a growing concern over both supply and quality issues in regard to the teaching profession (Wise, 1987; Theobald, 1987). Over the past decades, studies have shown that schools are unable to retain their most academically talented teachers (Lyson and Falk, 1984; Charters, 1970; Vance and Schlechty, 1982). The academic caliber of new teaching recruits, at least to the extent that it is revealed by measures of verbal ability, is considerably lower than a decade ago (Schlechty and Vance, 1983). The importance of this finding is linked to studies substantiating that the teachers with the highest verbal ability stand the greatest chance of helping students learn academically (Husen et al., 1978; Ekstrom, 1975; Gibson and Dembo, 1984). Yet not only can such individuals not be recruited into teaching, the teachers with those skills tend to defect from teaching at a disproportionately higher rate than those with low verbal ability (Mark and Anderson, 1985; Schlechty and Vance, 1983). Related findings also show that attrition in teaching most frequently occurs in the earliest career years among high academic ability recruits (Schlechty and Vance, 1983). Further, among those who stay in

teaching, teaching effectiveness seems to considerably decline after five years (Levin, 1970; Lortie, 1975; Summers and Wolfe, 1977).

Some evidence also indicates the quality decline in preservice teachers is most noted among the female recruits to teaching. Historically, teaching has been a female occupation, but the high-ability women who were always available in past decades appear not to be as readily available now (Schlechty and Vance, 1983; Darling-Hammond, 1984). In brief, then, individuals with the potential to make the greatest contributions to schools are electing not to teach in even greater numbers than in past decades; or, if they do train for teaching, they are the teachers who will defect earliest from teaching before they have invested large amounts of time and personal energy. Further, after five years in the field, the remaining teaching workforce as a whole appears to suffer a declining commitment to the dominant motivational goal of teaching: "promoting students' growth and development" (McLaughlin et al., 1986, p. 420). Clearly, these findings identify a pressing need to understand conditions and/or variable interactions under which teachers might either initiate, maintain, or renew commitment to the profession and the school organization.

#### The Issue of Workplace Commitment

A worker's commitment to his/her work task is closely bound to the concept of the worker's effectiveness (Hackman and Oldham, 1980). Of the many resources required for school improvement (as the second-wave

reformers clearly recognize), the most vital are the contributions of teachers' efforts, beliefs, and involvement in the overall mission of the schools. But the quality of teacher contributions is not only related to reforming school goals, it is ultimately the means by which most other vital resources are acquired by and for the school organization (March and Simon, 1958). For example, schools that reflect higher teacher commitment among their workforce are able to attract larger numbers of teacher applicants than schools with lower levels of staff commitment (Morris, 1980), and teachers with high levels of commitment to their organizational leaders will assist the organization in successfully weathering budget crises (Roberts, 1985). Clearly, the very survival of the organization depends on the commitment of these workers. Consequently, it should be a central objective of any administrative group in the schools to want to motivate teachers to both maintain and/or renew their commitment to make continuing contributions to the school's main goal of student achievement rather than to some competing endeavor or goal which may work in competition to the main organizational agenda (Rosenholtz, 1987, 1989).

Recently, however, research findings also show a sharp decline in workplace commitment by teachers. This decline has, in some cases, been linked to the managerial-aimed first-wave reform initiatives. Rosenholtz (1987) traced two first-wave reform initiatives -- minimum competency testing and career ladder plans -- and suggested that when poorly led and managed,

these initiatives actually resulted in waning workplace commitment on the part of teachers.

For more than a decade, research findings have accumulated to support the position that the organizational conditions under which teachers work have limited both their professional commitment to teaching and their commitment to the belief that student achievement can be fostered via the act of teaching (Ashton and Webb, 1986; Rosenholtz et al., 1986; Boston Women's Teachers' Group, 1983; McLaughlin et al., 1986). These studies suggest that many of the issues impacting teacher commitment grew out of a range of organizational issues involving the structuring of work, powerlessness, and isolation in the workplace in combination with the uncertainty involved in the act of teaching.

Rosenholtz (1987) identified teacher isolation and fragmentation of the teacher work role as two of the contributing reasons for Tennessee teachers to resist the minimum competency testing initiative of that state's reform program. In her investigation, she found teachers saying:

I think the morale of teachers is very low. The teaching load as far as book work, paperwork, is just weighing them down so heavily that they resent spending their time with paperwork and not actually teaching. If we had aides to help us, then we could spend more time teaching. Teachers just realize that there are not enough hours in the day, so many of us will bring stacks of work home, and I work almost every night until eight or nine o'clock, sometimes midnight, and that gets old after awhile. You have to enjoy what you're doing, and I do enjoy being with children, if I had more time to teach them instead of filling out reports. In the past I've always enjoyed teaching.

I felt that I helped in some way. Now there is so much other than teaching I am required to do. I guess I am just burned out. I am not looking forward to the fall. (Rosenholtz, 1987, p. 543)

Rosenholtz indicated that 60 percent of her sample complained of lower faculty morale as a result of the minimum competency reform initiative. The goal of first-wave reform to tighten the system and make it more accountable has, apparently, inadvertently helped erode teachers' beliefs in the efficacy of teaching.

Leadership behaviors and the managerial decision styles of individuals in positions of leadership also were frequently cited by teachers as issues that promote their sense of powerlessness in their workplace. This powerlessness appears to erode commitment to teaching even though teachers have the knowledge of how to teach effectively. A common thread through these investigations is mirrored in the following remarks by an elementary teacher:

That's the thing that really kind of aggravates me about education: we as educators are not treated as adults. I feel that the administrators still look upon us as being one of the children. So you teach elementary education, so you have an elementary education mind, and we can tell you just about anything and you will believe us. And at this point I would like to get into a situation where . . . I could be respected for *my* thinking as a person, as an individual, and I find that in this particular field, I'm not usually treated that way, and I resent it and I'm angered by it, too. (Boston Women's Teachers' Group, 1983, p. 265)

Many teachers also commented on how leadership behaviors among administrators tend to "infantilize" teachers (Ashton and Webb, 1986; Weiler,

1987). Roland Barth (1986), in exploring the relationship of the principal with the profession of teaching, commented:

The biggest problem besetting schools is the primitive quality of human relationships among children, parents, teachers and administrators. School boards infantilize superintendents; superintendents, principals; principals, teachers; and teachers, children. (p. 476)

A further issue which appears to complicate this problem of behaviors within the teacher-administrator relationship is the issue of gender. Research in women's studies suggests that women, due to differences in both educational and socialization experiences, do have a somewhat unique "way of knowing" (Belenky et al., 1986). As a result of these differences, some psychologists (Gilligan, 1982) have suggested that women have different expectations in relation to organizations and work experiences than men. Other researchers (Weiler, 1987) suggest it is the combination of the organizational powerlessness of women in the patriarchy of male principals which contributes to the sense of teaching being a "bitter" experience with little positive qualities to redeem it -- what Madeline Grumet (1988) labels "bitter milk."

Students of social systems recognize powerlessness as a major issue in alienation. Alienation in the workplace is usually described as a perceived lack of freedom and control on the job (Locke, 1976). Teachers who have directly experienced first-wave reform initiatives, such as the teachers in Rosenholtz's (1987) investigations concerning career ladders and minimum

competency testing, have noted an erosion of teacher autonomy in all areas of the school workplace including the individual classroom. This erosion of autonomy has resulted in a rising sense of powerlessness among some teachers. However, many teachers who have not been directly involved with the managerial-focused, first-wave reform objectives still cling to the traditional teacher perception that inside the individual classroom teachers hold a measure of autonomy and control over their work lives. This perception of teaching as being a primarily isolated, classroom-focused activity is, however, increasingly flying in the face of what is identified as best practice in the effective schooling research (Rosenholtz, 1989). This research suggests that effective schools support a shared governance model which requires teachers to be increasingly active in the school beyond the immediate classroom (Steadman, 1987). This redefinition of teaching (supported by second-wave reformers) presupposes that all teachers accept this view of their work. However, existing research does not show teachers supporting this view (Eisenhart et al., 1988). Policymakers' knowledge of how teachers currently perceive their work experiences is fairly ambiguous since the research in understanding how teachers view their organizational roles is fairly nascent. Researchers who have studied teachers have primarily focused on investigating teachers in relation to their experiences (Ashton and Webb, 1986; Cox and Wood, 1980; Rosenholtz, 1985). In matters outside the classroom, however, the literature shows most teachers feel a sense of inefficacy and

powerlessness which appears to erode their motivation to be committed to the goals of teaching and education and also erodes their willingness to be involved in the larger organization (Ashton and Webb, 1986; Zielinski and Hoy, 1983; McLaughlin et al., 1986; Dombart, 1985). The following teacher comment illustrates the mounting frustration teachers reflect about their overall workplace.

Take a look at the working world of the insider. You will find that it is not an atmosphere that nourishes visions. Though we teachers are numerous, we are virtually powerless. We affect none of the key elements in our working lives. For example, we have no control over class size or the length of the school day and class periods. We have almost no input into the form and content of the report cards. We do not select our schedules, grade levels or the buildings in which we teach. Indeed, we do not even control the time within our own classrooms, for we are slaves to the P.A., to notes from the nurse, from guidance, the librarian, the main office. We are often without the essentials, like paper and pencils and desks. In many buildings, janitors and secretaries control these. Acquiring a new pencil sharpener may involve stroking three separate egos and forgetting everything you ever read about reporting sexual harassment. Often, obtaining the basics interferes with teaching the basics. When individuals or groups lack the weight of power, it is easy to overlook them. They become, in Ralph Ellison's word, invisible. And so it is with teachers. (Dombart, 1985, p. 72)

As Rosenholtz (1985, 1989) has observed, teachers who feel professionally disempowered and inefficacious become disaffected, frequently absent themselves from work, and/or exit early from the profession. Ashton and Webb (1986) noted in their research that teachers with low teaching efficacy also tended to focus on other agendas rather than the tasks of teaching while

working; in conversations with colleagues, attention tended to be focused on poor working conditions and how one could improve these conditions rather than on teaching problems. These conversations concerning how the work organization is stacked against teachers tends to buttress their belief that any lack of teaching success is attributable primarily to external causes in the larger school community over which they have little or no control. And as they dialogue, according to Ashton and Webb (1986) and Rosenholtz (1989), colleagues convinced themselves that, when confronted by such overwhelming odds, no one can reasonably be expected to succeed. Ashton and Webb labeled this belief "universal helplessness," traced its origin to a low sense of teaching efficacy, and saw it as a primary reason why teachers who can teach effectively cease to try to do so.

#### Importance of Understanding Teachers' Inefficacy in Relation to Reform Efforts

Understanding the factors and interaction of variables which impact the crisis of teacher workplace commitment is clearly important if any workable agenda for school organizational reform is to be implemented. The need for reform in the schools is clearly shown by the increasing pressure external agents of change are placing on the schools. However, without a solid knowledge base established from an understanding of teachers' attitudes and beliefs about their work experience and their work supervisors, reform efforts designed to improve the school situation can, ironically, result in making

schools even more dysfunctional as work environments. Rosenholtz's (1987) preliminary data on the effects of first-wave reform initiatives supports this conclusion. Chubb (1988) argued that the chances of successfully implementing second-wave reform objectives are also bleak since current understanding of the complex interweaving of political and organizational agendas at work in the schools is inadequate, especially understanding the relationships involved between major stakeholders' power agendas. Former Secretary of Education William Bennett, indeed, has claimed that reform is not really taking place in the public schools; that vested interests have hijacked "the reform agendas or watered them down past recognition" (Beck and Springen, 1988, p. 57). Clearly, policymakers seeking to improve the schools recognize the validity of the following comment.

The issues most central to the health of the teaching profession and to long range quality of U.S. education have to do with the fact that competent teachers . . . indeed, some of our most talented teachers -- believe they can't, and thus won't, teach. Teachers who won't teach either leave the profession completely or resign themselves to going through the motions of educating children. Teachers who won't teach are symptoms of an ailing educational system. In fundamental ways, the U.S. educational system is structured to guarantee the failure of teachers. Ironically, a teacher can experience professional success, in terms of fostering student learning, but still feel a profound sense of personal failure because the experiences of teaching are frustrating, unrewarding, and intolerably difficult. (McLaughlin et al., 1986, p. 420)

In practical terms, then, a needed major research agenda involves a more explicit understanding of how teachers perceive their work experiences and their work supervisors (Bacharach et al., 1986). Instead of myopically focusing on sleuthing out supposed shortcomings of individual teachers and administrators, research needs to focus on understanding the relationships between and among different members of the public school workforce. A more thorough understanding of the work relationships in the school organization can only result in improved policy formation for structuring and managing school work so that the individuals who do the school's work can experience a greater sense of efficacy and worthiness in their labor.

Historically, organizational control was aimed at making the productivity of a system both more effective and more efficient while also addressing the professional individual worker's needs for empowerment and autonomy within his/her work role. Max Weber (1947) initially identified *the* critical dilemma of work organizations when he asked how one can control organizational participants so as to maximize their effectiveness and efficiency and yet keep at a minimal level their unhappiness that this need for organizational control inevitably produces in subordinates. Obviously, from the mere fact that a new second-wave reform agenda aimed at restructuring the school workplaces exists, it can be concluded that schools were, during the initial reform effort of the early 1980s, unsuccessful in resolving Weber's critical dilemma in a meaningful fashion. A critical goal for second-wave reform is that the

objectives of that reform effort be framed with adequate knowledge and critical analysis so as to not further aggravate the crisis in the schools in regard to teacher workplace commitment and motivation. And yet, a close analysis of the initiatives of second-wave reform must inevitably lead a critical evaluator to agree with Rosenholtz when she noted:

Most of the reform efforts have been subjected to too little critical analysis and even less evaluation. To make matters worse, interventions are apt to be implemented without the use of currently available knowledge about the teaching occupation -- knowledge that strikingly contradicts many approaches to school reform currently underway. (Rosenholtz, 1987, p. 535)

While this single study cannot address the entire range of issues within this dilemma, the goal of the study is to contribute some insight for understanding the teacher/administrator relationship as viewed from the teacher's perspective. Hopefully, this insight will help support the formation of more precise policy in the area of school change or teacher/administrator training and staff development experiences; thus, it will help foster the development of improved training and organizational work experiences for both teachers and administrators.

### Major Problem of Study

The justification for the major problem of this study has been developed via an extensive review of the literature in education in the areas of teacher effectiveness, school effectiveness, and analysis and recommendations for reforming the schools. The researcher also investigated the literature in

organizational psychology and theory in the areas of job satisfaction and work commitment, and the changing roles of organizational leadership and followership. From this review, the construct of self-efficacy emerged as the major variable of interest. Research on self-efficacy in the field of education (Dembo and Gibson, 1985; Gibson and Dembo, 1984; Ashton, 1985; Ashton et al., 1983; Ashton and Webb, 1986) has tended to define teacher's sense of efficacy in terms of the major work responsibility of teachers -- obtaining learning achievement from students. This aspect of a teacher's sense of efficacy is called professional efficacy in this study. Fuller et al. (1982), however, have suggested that the individual work efficacy of a teacher might involve not only the teacher's perception of his/her capabilities in relation to instructing students, but also the teacher's perception of his/her capability to exercise influence in the larger school organization. Fuller et al. maintained this more comprehensive view of individual efficacy was especially important in understanding change processes in the schools. Fuller et al.'s expanded concept involving influence in the organization is called organizational efficacy in this study. The major problem of this study is to explore this expanded idea of teacher's sense of efficacy. Do teachers perceive themselves as being both professionally efficacious and organizationally efficacious? If so, do these different levels of efficacy influence a teacher's perceptions of his/her principal's leader behaviors?

### The Construct of Self-Efficacy

Self-Efficacy -- the individual's belief in his/her capability to perform specific actions and obtain desired outcomes through personal mastery and efforts -- appears to yield important information about the variety of variables in organizations (Bandura, 1977a, 1977b, 1978). Ashton et al. (1983) concluded from their comprehensive investigation focused on teachers' sense of efficacy that ". . . efficacy offers educators and researchers a powerful organizing construct for directing future research and educational improvement" (p. 3). While the primary focus of research using the self-efficacy construct in education has focused on teachers and their sense of efficacy about teaching in relation to student achievement, researchers investigating self-efficacy from an organizational perspective have suggested drawing a distinction between organizational efficacy and performance efficacy (the equivalent of teaching efficacy) in the school workplace because of the nature of the school organization. Conger and Kanungo (1988) suggested that empowering professional subordinates inside work organizations inevitably means ". . . enabling [them] via motivating through enhancing personal efficacy . . ." within the organization (p. 473). They define empowerment of subordinates as follows:

. . . a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information. (Conger and Kanungo, 1988, p. 474)

Since second-wave reform agendas repeatedly emphasize increased empowerment of the classroom teacher in the larger school organization, it is important to understand if current teachers perceive themselves as having organizational efficacy.

Performance efficacy (or, as defined in this study, professional efficacy) covers the perceived efficacy a worker would have performing his/her own work tasks independent of social and political interactions of other staff members in the school organization (Fuller et al., 1982). Weick (1969) has argued that in loosely coupled work systems (like the current school organizations), the individual teacher can choose to remain isolated organizationally and focus almost totally on the classroom aspects of teaching. In a study of elementary teachers, Lortie (1969) established that the typical teacher believes the pursuit and achievement of desired work outcomes is more consistently rewarded within the classroom rather than in the larger external organizational world beyond the classroom; consequently, the classroom arena becomes the teacher's primary work concern and seeking an organizational role beyond the classroom is neglected. Such organizational isolation is well-established in education literature (Zielinski and Hoy, 1983; Forsyth and Hoy, 1978; Bishop, 1977; Little, 1982). Teacher beliefs about preferred work experiences show they are most positive when the task involves direct instructional contact with students in the classroom. Conversely, they are least positive toward work activities, such as curriculum

development, record keeping and testing programs, and other management activities which do not directly interact with student instruction and learning (Eisenhart et al., 1988). Yet, as noted earlier, current restructuring agendas in the schools advocate administrators seeking to involve teachers in these less-preferred work arenas.

Organizational efficacy refers to an organizational actor feeling empowered in the organization beyond his/her immediate work setting -- the classroom. An organizationally efficacious teacher would feel able to gain desired outcomes both for his/her classroom and the larger school structure via influencing another person in a higher level of the organization (Fuller et al., 1982). Through faculty councils, union committees, community activities, and interpersonal relations with work superiors, for example, a teacher can develop varying levels of influence within the organizational structure, thus developing a sense of organizational empowerment and efficacy. This sense of efficacy would be (to some degree) separate from the sense of professional efficacy a teacher may derive from his/her dealings with his/her students. Fuller et al. (1982), in defining organizational efficacy, emphasized that "while a school actor may feel efficacious when interacting with other individuals in her same level, we emphasize interaction across structural levels due to our interest in organizational change and resilience" (p. 9). For this study, the distinction of a subordinate influencing a superordinate across organizational

levels was of value in developing the conceptual framework of professional and organizational efficacy.

The distinction between performance or professional efficacy and organizational efficacy also appears to be a valuable one in light of the findings of Ashton and Webb (1986) that performance, or as they phrase it, "teaching efficacy," is influenced by organizational structures. Ashton et al. (1983) also noted that conditions in the schools -- professional isolation, the uncertainty of teaching, and feelings of powerlessness and alienation -- made it difficult for teachers to maintain a high level of teaching efficacy (i.e., professional efficacy) in the classroom. They concluded that "major contributors to teachers' sense of inefficacy are organizational and structural" (p. 35). However, in their study of teachers' sense of efficacy, they drew limited distinctions between the concepts of organizational and performance or professional efficacy. Following the established pattern of self-efficacy studies in school settings, Ashton and Webb (1986) focused on the performance or professional efficacy aspect of self-efficacy despite Bandura's (1986) suggestion that self-efficacy involves many factors since self-efficacy arises from both a cognitive and an affective appraisal of one's capabilities and is of a situation specific nature.

Bandura (1982), who originally articulated the conceptualization of self-efficacy in clinical settings, has also indicated that self-efficacy affects one's choice of settings and activities, effort expenditure, and the initiation and

persistence of coping efforts in face of obstacles. Bandura (1977a) maintained that efficacy expectations can influence an actor's choice of environment. As a result of Bandura's findings, one can hypothesize that a teacher with high organizational and professional self efficacy might seek a new responsibility that offered increased challenge and a wider range of responsibility, such as peer supervision, or greater recognition and pay (both typical reform-focused activities). However, a teacher with low organizational efficacy but high professional efficacy might choose either to remain within the status quo of the classroom or elect to support only those change initiatives which focused on instructional improvement. In addition, a teacher with low efficacy in both domains might be resistant to all change initiatives and focus on either stress and burnout issues (if s/he was experiencing inefficacy as a result of personal inefficacy) or on emphasizing how "out-of-control" a teacher's existence is both in the performance and organizational areas (if s/he was experiencing inefficacy from a low general teaching sense of efficacy). Likewise, a teacher with high self-efficacy organizationally might respond positively to persuasive and directive leadership behaviors which challenged the teacher with new tasks since this teacher would feel enabled, via his/her high sense of efficacy in the organization, to influence the decision making of the principal in relation to these tasks. Conversely, a teacher with a low sense of organizational efficacy might respond negatively to such behaviors and prefer a more low-key, less directive set of leader behaviors

which supported the status quo and increased the teachers' sense of safety in the organization. In light of these interactions, a need exists to explore the two domains of self-efficacy in the educational workplace -- organizational and performance or professional efficacy -- in order to investigate how teachers who are efficacious in one domain and not the other or who are efficacious in both domains or in neither of the domains perceive aspects of their work experiences and the behaviors of their immediate supervisor.

### The Variable of Leadership

The development of self-efficacy is fostered, according to Bandura (1982), by four information cues. His research identified these cues (from most to least influential) as: (1) inactive mastery, (2) vicarious experiences, (3) verbal persuasion, and (4) physiological arousal. Bandura (1986) has indicated that a sense of efficacy can come from vicarious experiences of observing similar others (i.e., co-workers, other teaching professionals) who perform successfully on the job. During staff training, modeling techniques often are used to empower workers. Very frequently, a principal's positive behaviors will enable subordinates in schools to believe they can mimic such behaviors or, at the very least, make some incremental improvement in their own behaviors and so be more organizationally effective. Bennis and Nanus (1985), in their study of leaders, traced how William Kieschnick, president of ARCO, learned to be a risk-taker in leadership situations through the modeling of leaders under which he had worked. While vicarious experience

is not as effective as inactive mastery in improving self-efficacy, Bandura (1986) stated modeling effects can have a significant impact on efficacy expectations.

People convinced vicariously of their inefficacy are inclined to behave in ineffectual ways that, in fact, generate confirmatory behavioral evidence of inability. Conversely, modeling influences that enhance perceived self-efficacy can weaken the impact of direct experiences of failure by sustaining performance in the face of repeated failures. (Bandura, 1986, p. 400)

Bandura (1986) has also indicated that the power of verbal persuasive influence is an important source of individual self-efficacy beliefs. However, according to Bandura, the following types of information affect the magnitude of the effect of verbal persuasion: credibility and expertness of the source, consensus among multiple feedback, and familiarity the source has with the task demands of the worker. For example, a leader's behaviors might be viewed as persuasive input and increase the subordinate's sense of self-efficacy; yet the level of the affect of that persuasion would be dependent on the subordinate's perceptions of the leader's foundation for legitimacy as a leader, such as expertise, visionmaking skills, and trustworthiness. Therefore, an individual of high efficacy in either the performance or organizational domains of efficacy might have a different perception of a leader's behaviors in relation to his/her expertise and trustworthiness than an individual with low self-efficacy in either the performance or organizational spheres of efficacy; consequently, their responses to the leader's persuasive role might be

different (Gist, 1987). Yet, the power the leader has via verbal persuasion was clearly stressed by Bandura (1986) when he noted: "People who are persuaded verbally that they possess the capabilities to master given tasks are likely to mobilize greater sustained effort than if they harbor self-doubts and dwell on personal deficiencies when difficulties arise" (p. 400). Clearly, the influence that leadership behaviors might exert on subordinates' sense of self-efficacy and, conversely, how a subordinate's level of efficacy might impact his/her perception of a leader's behaviors, are areas needing further investigation.

Currently in educational research, the majority of efficacy research has focused on the performance domain of efficacy and on identifying characteristics, both in the classroom and the larger organization, which could enhance or influence the development of teachers with a high sense of performance efficacy (Ashton and Webb, 1986; Dembo and Gibson, 1985; Grecas and Schwalbe, 1983). However, a need also exists to examine how subordinates who identify themselves as efficacious on both or either of the two hypothesized domains of self-efficacy in the work environment may differ in their perceptions of work experiences and preferences concerning leaders from those who identify themselves as inefficacious in both domains or in either of the two domains of self-efficacy. This study provided an opportunity to examine the relationship between organizational and performance efficacy of

a subordinate and to discover if it affected the subordinate's views of the leadership behaviors of his/her principal.

### Statement of the Problem

This research sought to determine if a teacher's sense of performance or professional and organizational efficacy affected the teacher's perception of his/her principal's leadership behaviors and his/her "zone of acceptance" of unilateral decision making by that principal. The independent variables were as follows: (1) organizational efficacy, (2) performance efficacy, (3) gender, (4) years of experience, and (5) size of school district in which a teacher was employed. The dependent variables of interest were subordinate's perceptions of the leadership behaviors of their principal and their professional zone of acceptance of their principal's unilateral decision making.

### General Questions to Be Answered

The following general questions were addressed in this study:

- (1) Were there teachers whose sense of efficacy focused on organizational concerns rather than instructional concerns?
- (2) Was the level of performance and organizational efficacy of teachers independent of teachers' gender classification?
- (3) Was the level of performance and organizational efficacy of teachers independent of the years of teaching experience of the teachers?

- (4) Was the level of performance and organizational efficacy of teachers independent of the size of the school work organization in which the teacher is employed?
- (5) Did teachers at different levels of performance and organizational efficacy perceive their principal's leadership behaviors differently?
- (6) Did teachers at different levels of performance and organizational efficacy have different professional zones of acceptance of unilateral decision making by their principal?
- ✓ (7) Were there significant differences in teachers' perceptions of their principal's leadership behaviors depending on the teachers' gender and level of performance and organizational efficacy?
- (8) Were there significant differences in teachers' professional zones of acceptance of their principals' unilateral decision making depending on a teacher's gender and level of performance and organizational efficacy?
- ✓ (9) Were there significant differences in teachers' perceptions of their principal's leadership behaviors depending on a teacher's years of teaching experience and level of performance and organizational efficacy?
- (10) Were there significant differences in teachers' professional zones of acceptance of their principal's unilateral decision making depending on

a teacher's years of teaching experience and level of performance and organizational efficacy?

- ✓(11) Were there significant differences in teachers' perceptions of their principal's leadership behaviors depending on the size of school organization in which the teacher was employed and the level of performance and organizational efficacy of that teacher?
- (12) Were there significant differences in teachers' professional zones of acceptance of their principal's unilateral decision making depending on the size of the school organization in which a teacher was employed and the level of performance and organizational efficacy of that teacher?

### General Procedures

The procedures in this study included the following: appropriate identification of a population and subsequent sampling, a systematic method for measuring independent variables, and a systematic method for obtaining dependent variable information concerning leadership behaviors and teachers' zones of acceptance in relation to principals' decision making. An overview of these procedures follows with a more detailed discussion of the procedures occurring in Chapter 3.

### Population and Sampling

The defined target population of this study included all teachers in the state of Montana who met the following criteria:

- (1) taught in a public school setting,
- (2) worked in districts which employed a district superintendent of schools,
- (3) worked in settings in which an immediate supervisor was on site for a portion of most working days,
- (4) worked in districts with student enrollments of 1,000 or greater,
- (5) belonged to the Montana Education Association, and
- (6) were actively employed during the school term 1988-89.

A stratified random sample of the identified target population was selected for the purposes of this study. The sample was stratified according to size of organization in which teachers worked, gender of teacher, and the level at which teachers taught -- secondary or elementary. A sample size of 400 teachers was sought. This sample size was desirable since teachers were grouped into four subgroups on the efficacy variable. The four efficacy subgroups were composed as follows:

- (1) The Efficacious -- teachers who were both professionally and organizationally efficacious.
- (2) The Professionally Efficacious -- teachers who were high in professional efficacy but low in organizational efficacy.

- (3) The Organizationally Efficacious -- teachers who were high in organizational efficacy but who were low in professional efficacy.
- (4) The Inefficacious -- teachers who were neither high in professional efficacy nor high in organizational efficacy.

#### Measurement of Independent Variables

Measurement of the independent variable of professional efficacy involved the total score obtained from two five-point, Likert-scale items. These items were developed in the two Rand studies (Armor et al., 1976; Berman et al., 1977) and measured the concept of teachers' sense of efficacy. In the Rand studies, the items were judged as adequate for grouping study respondents on the measure of self-efficacy. In a critical analysis of the literature on teachers' sense of efficacy as defined by Ashton and Webb (1986) and Gibson and Dembo (1984), the researcher has established that the components of teachers' sense of efficacy are comparable to the concept of performance efficacy as defined by Fuller et al. (1982) and, for the purpose of this study, was identified as professional efficacy.

Measurement of the organizational efficacy independent variable was accomplished by adapting the two five-point, Likert-scale items used in the Rand studies to reflect the organizational efficacy variable. The definition of organizational efficacy used in this study was also utilized by Fuller et al. (1982). This modification of the Rand measures was necessary since organizational efficacy in the school workplace has not been used previously

as a variable in empirical research. Content validity was established via a review of literature to define the concepts and then having the items written from that definition evaluated by a panel of experts in the area of public school organizational issues.

Information concerning the variables of gender, years of experience, and district organizational size was obtained via self-reporting by the subjects in the demographic section of the research instrument. Gender and organizational size was double-checked via MEA membership records and the *1989-90 Directory of Montana Schools*.

#### Measurement of Dependent Variables

The Leadership Behavior Description Questionnaire-Form XII (LBDQ-XII) (Stogdill, 1963) was used to measure the dependent variable of leadership behaviors. The revised LBDQ-XII consists of 10 attitude scales measuring various leadership behaviors in addition to the original LBDQ's two scales of consideration and initiation of structure. Reliabilities for the LBDQ-XII are well established, as is the validity of the instrument. It is a widely used leadership measure.

The Professional Zone of Acceptance Inventory (PZAI) developed by Wayne Hoy and Daniel Kunz was used to measure the variable of teachers' professional zones of acceptance of principals' unilateral decision making. The PZAI was designed based on the theoretical work of Chester Barnard concerning zones of acceptance (Kunz and Hoy, 1976).

### Limitations and Delimitations of Study

Limitations to the study existed as listed below:

- (1) The study considered only public school teachers from the state of Montana.
- (2) The study was limited to areas of self-efficacy that deal with performance efficacy and organizational efficacy as they relate to the educational organization in the public setting.

Delimitations of the study existed as listed below:

- (1) The study considered only public school teachers who have an on-site supervisor for a portion of most teaching days.
- (2) The study considered only teachers actively employed in the public school setting in Montana in the school year of 1988-89.
- (3) The study considered only teachers who hold a teaching certificate for the level and/or content area in which they are currently teaching.
- (4) The study considered only teachers teaching in districts with a student enrollment of 1,000 students or higher.
- (5) The study considered only teachers who belonged to the Montana Education Association.

### Definition of Terms

- (1) Self-Efficacy -- involves the judgments about how well one can organize and execute courses of action required to deal with prospective situations that contain many ambiguous, unpredictable, and often stressful elements (Bandura, 1981). Self-efficacy arises from a gradual acquisition of complex cognitive, social, linguistic, and/or physical skills through experience (Bandura, 1982).
- (2) Professional Efficacy -- indicates perceived efficacy in performing one's own work tasks in the individual classroom, largely independent of social interactions with other staff members in the school (Fuller et al., 1982). Professional efficacy was measured by a combination score on Rand Items 1 and 2.
- (3) General Sense of Teaching Efficacy -- is one dimension of Ashton and Webb's (1986) Teachers' Sense of Overall Efficacy which refers to teachers' expectations that teaching can influence student learning. Rand Item 1 deals with this component of teachers' sense of efficacy.
- (4) Sense of Personal Efficacy -- is the second dimension of the multidimensional construct of Overall Teachers' Sense of Efficacy developed by Ashton and Webb (1986). This dimension refers to the individual teacher's assessment of his/her own teaching competence. Rand Item 2 deals with this component of teachers' sense of efficacy.

- (5) Organizational Efficacy -- refers to an organizational actor feeling capable of gaining desired outcomes in the workplace by influencing another individual in a different level of the organization superior to him/her (Fuller et al., 1982). Organizational efficacy was measured by a combination score on the revised Rand Items 1 and 2.
- (6) The Efficacious -- refers to that group of teachers who reflect high levels of efficacy in both the domain of professional efficacy and in the domain of organizational efficacy. A high rating is established by a score of eight or more on both efficacy measures.
- (7) The Professionally Efficacious -- refers to that group of teachers who reflect a high level of efficacy in the domain of professional efficacy but have a low level of efficacy in the domain of organizational efficacy. A high rating is established by a score of eight or higher on the performance efficacy measure. A low rating is established by a combined score of six or lower on the organizational efficacy measure.
- (8) The Organizationally Efficacious -- refers to that group of teachers who reflect a high level of efficacy in the domain of organizational efficacy but have a low level of efficacy in the domain of professional efficacy. A high rating is established by a score of eight or more on the organizational efficacy measure. A low rating is established by a combined score of six or lower on the professional efficacy measure.

- (9) The Inefficacious -- refers to that group of teachers who reflect a low level of efficacy in both the domain of professional efficacy and in the domain of organizational efficacy. A low rating is established by a combined score of six or lower on both efficacy measures.
- (10) Leadership -- over human beings is exercised when persons with certain motives and purposes mobilize, in competition or conflict with others, institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers (Burns, 1978). In this study, leadership was measured by the LBDQ-Form XII.
- (11) Empowerment -- is a process of enhancing feelings of self-efficacy among organizational members (Conger and Kanungo, 1988).
- (12) Group L Organization -- is a school organization with a district-wide enrollment of 3,000 students or greater.
- (13) Group M Organization -- is a school organization with a district-wide enrollment between 1,000 and 2,999 students.
- (14) Job Satisfaction -- is defined as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience" (Locke, 1976, p. 1300).
- (15) Morale -- is defined as "an attitude of satisfaction with, desire to continue in, and willingness to strive for the goals of a particular group or organization" (Locke, 1976, p. 1300).

## CHAPTER 2

### REVIEW OF LITERATURE

In order to place the problem of this study within the framework of knowledge currently existing concerning the "self" and self-management in work organizations, it is necessary to examine the literature salient to the major variables of interest in this study -- self-efficacy and leadership. This chapter is organized in the following manner: (1) a brief discussion of self-management and the changing role of the "self" in work organizations according to current organizational theorists, (2) an exploration of the literature concerning self-efficacy and the implications that literature holds for supporting increased examination of subordinate roles and perceptions in order to more completely understand organizational behavior and leadership, and (3) a review of major patterns discernable in the research concerning how leadership and leader behaviors function in complex organizations. ✓

#### Self-Management and the Role of "Self" in Work Organizations

Self-management, more often referred to as self-control, has been defined as follows: "A person displays self-control when, in the relative absence of external constraints, he engages in behavior whose previous

probability has been less than the alternatively available behaviors" (Thoreson and Mahoney, 1974, p. 12). Manz and Sims (1980) suggested that with the application of the principles of social learning theory (Bandura, 1977b, 1986), organizational subordinates could develop increased skills in self-management so as to be able to select reinforcement contingencies in the workplace, and thus largely manage their own organizational behavior and maintain their own commitment to work tasks. Such a change in subordinate behavior would make the subordinates less leader-dependent. In popular writing concerning organizational relations, this concept of self-management is frequently referred to as empowerment of the worker. Luthans and Davis (1979) referred to behavioral self-management as the "missing link" in managerial effectiveness, noting that

. . . research and writing in the management field have given a great deal of attention to managing societies, organizations, groups, and individuals. Strangely enough, almost no one has paid any attention to managing oneself more effectively. (p. 43)

Manz and Sims (1980), along with Kerr and Jermier (1978), argued that effective utilization of self-management among employees can be an important "substitute for leadership." In short, when subordinates are capable of adopting a proactive role in controlling their own behavior and in specifying their own self-reinforcing contingencies, the role of the formal leader can be substantially reduced with a resultant savings of time, money and effort for the organization and a freeing of the formal leader's time from the act of

supervision to other organizational concerns (Luthans and Davis, 1979; Manz and Sims, 1980).

Brief and Aldag (1981), Gist (1987), and Graen (1976) made a case for further research to develop more completely the understanding of how the individual operates in the workplace and the conditions which foster clarification of organizational roles and the development of self-management behaviors among subordinates. Gist (1987) identified the concept of self-efficacy as a potent one for understanding organizational behavior. Since most of the restructuring agendas of second-wave reform initiatives in public education (Carnegie Forum, 1986; Kearns and Doyle, 1988; Chubb, 1988) call for increased empowerment of the teacher in the school organization, greater knowledge of the conditions that foster self-management among subordinates is of value to students of school organizational behavior.

The existing literature on self-management indicates self-managing individuals have the ability to manage their beliefs in relation to the workplace and work tasks so as to maintain a high level of performance and commitment (Bandura, 1986; Wood and Bandura, 1989). This integration of cognitive beliefs with environment and behavior determinants is a key component of Bandura's theory of social learning (1977b). The integration of cognitive beliefs proposed in the social learning model is not present in older needs-satisfaction models of behavior which basically considered external environmental determinants as the primary agents shaping and motivating human

behavior (Deci and Ryan, 1985). These older models were viewed by Salancik and Pfeffer (1978) as treating the individual as a passive component of the person/task fit in organizations and helped explain why studies concerning job satisfaction and workplace commitment have tended to focus on manipulating external factors. Bandura, in his social learning theory model, stressed a three-way reciprocal interaction involving behaviors, cognitions, and the environment, as shown in Figure 1.

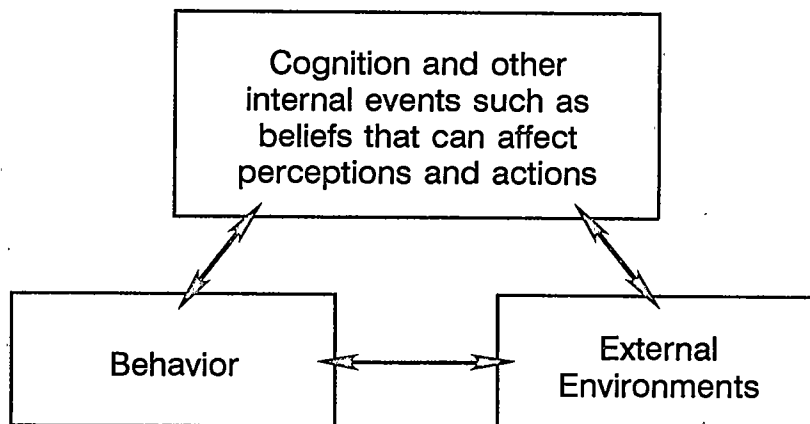


Figure 1. Bandura's conceptualization of reciprocal interaction for self-efficacy.

Reciprocity does not imply that different sources of influences are of equal strength, nor does it imply the influences occur simultaneously. Bandura (1986) theorized that the influences were bi-directional; in brief, people are both products and producers of their organizational or social environments. Organizationally, three aspects of Bandura's social cognitive

theory are relevant: (1) the development of people's cognitive, social and behavioral competencies through mastery modeling; (2) the cultivation of people's beliefs in their capabilities so that they use their abilities efficiently and effectively; and (3) the enhancement of people's motivation via effective goal setting actions.

Since Bandura's proposal of the social learning theory model, numerous studies have focused on the role self-beliefs play in task performances and task commitments in organizational settings. Ellis and Taylor (1983) found task specific self-efficacy predicted key motivational and behavioral variables in a job search process. Barling and Beattie (1983) showed self-efficacy perceptions were strongly correlated to sales performance among life insurance agents. Taylor et al. (1984) noted that levels of self-efficacy beliefs were directly connected to research productivity among university faculty members. Ashton and Webb (1986) found teachers who were well-versed in their subject matter and had a high sense of efficacy about their teaching capabilities could motivate low achieving students and enhance their cognitive development and achievement. Brookover (1977) similarly found strong student effects from strong perceptions of self-efficacy from both students and teachers. Rutter et al. (1979) also reported a statistically significant finding that teacher efficacy is associated with student achievement levels. Clearly, self-beliefs are important in shaping the quality of task performance and task commitment in the workplace.

### Self-Efficacy

Self-efficacy is the central component of Bandura's (1977b, 1978, 1986) social learning theory. Bandura defined self-efficacy as one's belief in one's capability to perform a specific task successfully because of personal abilities. The development of individual self-efficacy arises from the gradual acquisition of complex cognitive, social, linguistic, and/or physical concepts/skills through experience (Bandura, 1986). Efficacious individuals appear to weigh, integrate and make judgments concerning their abilities in each situation; and, based on those decisions, individuals regulate both their choices and efforts in these said situations (Bandura and Schunk, 1981; Bandura, 1986).

### Issue of Locus of Control

Bandura's exploratory treatment of efficacy in 1977 carefully delimited his self-efficacy conceptualizations from the concept of locus of control developed by Rotter (1966) (Lefcourt, 1982). Rotter, in conceptualizing locus of control, drew a distinction between internal and external locus of control. Internal locus of control is concerned with causal beliefs about outcomes contingent on individual behavior. External locus of control is the notion that outcomes are controlled by external factors, such as luck or a powerful external other. Bandura (1986) noted two important distinctions between locus of control and self-efficacy. First, internal locus of control is a generalized construct covering a variety of situations, whereas self-efficacy is a situation/task

specific construct involving perceptions of *personal* ability/mastery in specific settings. A person, for example, may show strong internal locus of control in general, but believe s/he has low abilities in certain areas which would result in a low sense of efficacy on relevant tasks in that specific situation. A second difference is that external locus of control includes the notion that outcomes are controlled by factors over which the individual has minimal control. Self-efficacy is exclusively internal in its focus.

### Dimensions of Self-Efficacy

Self-efficacy has three dimensions. *Magnitude* defines the level of task difficulty a person believes s/he can master. *Strength* refers to whether the conviction about magnitude is strong or weak. *Generalizability* indicates the degree to which the expectation can be generalized across situations (Bandura, 1977a). Bandura and Adams (1977) emphasized analysis of efficacy must be tailored to the domain being studied. They noted it is important to delineate between areas of task performance and to assess efficacy perceptions over a range of increasingly difficult tasks if fine judgments are to be made concerning strength, magnitude and generalizability of self-efficacy.

### Sources of Self-Efficacy

Bandura (1977b, 1986) identified four sources of self-efficacy. From most to least influential, the information sources are enactive mastery, vicarious

experience, verbal persuasion, and emotional (physiological) arousal state. Each information cue provides the individual with valuable data, but Bandura maintained self-efficacy is established only when the individual has completed cognitive appraisal and integration of all these data sources.

Enactive mastery is defined as repeated performance accomplishments directly related to the situation in which efficacy is being considered (Bandura, 1982). Enactive mastery is facilitated via successively moderate increments in task complexity and responsibility supported by training so the subordinate can fully acquire the new skills for total quality performance. Bandura (1986) stressed successes in performance will increase mastery expectations and failures will lower such expectations. This reduction of efficacy perception as a result of failed performances will be especially true if the failures occur early in the learning process (Bandura, 1986). When subordinates, however, successfully perform complex tasks or are given increased responsibility on the job and successfully manage these responsibilities, they have the opportunity to revise their understanding of their own individual self-efficacy upward. As a result, they feel more capable and empowered (Conger and Kanungo, 1988). If, however, subordinates do not have the opportunity to gain sufficient success to convince themselves of their efficacy in relation to the work tasks, they will work at them weakly and inconsistently. They will also tend to quickly abandon any new skills or approaches suggested for the work tasks if the new approaches fail to provide the subordinate with immediate results

or if the subordinates experience any difficulty in working the new approaches (Wood and Bandura, 1989).

A second major source of information is vicarious experience (modeling), although Bandura (1986) viewed this source as being slightly less powerful than enactive mastery. The variation in magnitude between vicarious experiences and enactive mastery is due to the fact that information gained from external sources is viewed by the individual as less dependable than information gained from his/her own performance experiences. Bandura also stressed that modeling influences designed to increase mastery must be so designed as to build self-confidence in one's capabilities as well as to convey skills. Models which clearly focus on building skills are less effective than models which focus on conceptual-expansion as well as skill instruction (Wood and Bandura, 1989). Kazdin (1974) and Bandura et al. (1980) found modeling is more effective when models succeed after overcoming difficulties rather than when they are initially very facile in performance. Indeed, Bandura (1986) noted very facile performances by models may incapacitate individuals with weaker self-efficacy perceptions to the degree that these individuals will refuse to expose themselves to any further opportunities for performance information in relation to themselves in regard to that work situation or task since their cognition, in light of the facile modeling, makes them conclude they will not be able to perform successfully. The research investigating modeling as an information source also has shown that its effect was enhanced when

the modeled behavior produced clear results or consequences (i.e., the model makes clear the reasons for actions s/he is taking, etc.) and when congruence existed between the subject and the model in terms of age, gender, and perceived ability (Bandura, 1977a).

Self-modeling, a special type of vicarious experience involving videotaped feedback in which a subject's mistakes are edited out or corrected so the subject can view himself/herself performing the task successfully, has also been minimally investigated as an information source of self-efficacy knowledge. Gonzales and Dowrick (1982) established that such self-modeling developed improved task performance by enhancing self-beliefs concerning self-abilities. The study compared a group who received video feedback showing only their successful billiard shots (selective though accurate information) with a group who received video information showing only their unsuccessful shots edited to look correct (selective misinformation). In both groups, subjects below the median on initial performance improved significantly over the control groups in a subsequent performance session. No significant change in performance was noted among groups that were above the median in initial performance.

Empirical evidence is equivocal concerning the magnitude of the effect of behavior modeling via supervisor's performance as a source of self-efficacy information for subordinates. Some studies have shown a positive effect of such modeling in workplace situations (Decker, 1983; Meyer and Raich,

1983). Dillon et al. (1972), however, found that such behavior modeling resulted in a less able performance since subjects appeared "overwhelmed and intimidated" (p. 489). Consequently, modeling from a supervisor appears to be a volatile informational source for understanding self-efficacy resulting in negative as well as positive information which subordinates use in making their own self-efficacy judgments.

Verbal persuasion is a third source of self-efficacy information. Words of encouragement, verbal feedback, and other forms of social persuasion often are used by leaders, managers, and other group members to empower and support efficacious perceptions in subordinates and coworkers in organizational settings (Conger, 1988, 1989). Verbal persuasion, however, is viewed as less effective than either enactive mastery or modeling as an informational source for efficacy judgements, and its effect is very dependent on the perceived credibility of the persuaders -- their perceived prestige, trustworthiness, expertise, and expressed assuredness (Bandura, 1986). Consequently, a subordinate's judgment of the effectiveness of his/her leader's leadership behaviors would appear to be very linked to the subordinate's perceptions of his/her leader.

Finally, the fourth informational source, an individual's perceptions of his/her physiological state, can influence perceptions of performance capability and commitment. Emotional arousal (i.e., the physiological symptoms resulting from stress, anxiety, fear, or depression both on and off the job) can

lower self-efficacy beliefs (Bandura, 1986), since individual in such an aroused state may connect the arousal to the situation and feel excessive vulnerability to failure. Empowerment strategies which provide emotional support for subordinates can create a more supportive and trusting work setting, thus effectively strengthening self-efficacy beliefs (Neilsen, 1986). Weiner (1985) stressed that, by getting subordinates to attribute their failures to external and unstable factors such as inadequately defined tasks, inadequate support systems and other external factors rather than attributing them to the subordinate's own personal lack of ability or skill, superordinates can support the development of increased sense of self-efficacy in subordinates and remove the effectiveness of collecting negative information via emotional arousal to support lower judgments of efficacy. Ashton and Webb (1986) also suggested that teachers can use this coping approach to protect their personal sense of efficacy in regard to instruction even when they are not functioning effectively in that area.

#### Self-Efficacy and Performance

Many studies have established significant correlations between self-efficacy and improved task performance (Bandura, 1982; Bandura and Adams, 1977; Bandura et al., 1977; Bandura et al., 1980; Feltz, 1982; Taylor et al., 1984). Several studies have found self-efficacy to be a better predictor of subsequent performance than past performance behaviors (Bandura, 1982; Bandura et al., 1977; Bandura et al., 1980). Locke et al. (1984) found that

self-efficacy was a significant predictor of subsequent performance if past performance was controlled. However, the correlation between self-efficacy and past performance was higher than the correlation between self-efficacy and future performance. Bandura (1982) stressed self-efficacy could predict performance in a variety of domains if the efficacy measure was tailored to the specific areas and tasks being measured. An individual's judgments of personal efficacy also affect one's choice of activities and environments. It also determines their level of motivation, which is reflected in how much effort they will exert and how long they will persevere. The stronger the belief in their capabilities, the greater and more persistent are their efforts (Bandura, 1988). For example, using a measure designed for the task of selling insurance, Barling and Beattie (1983) found sense of self-efficacy significantly correlated with the number of calls made per week, number of policies sold, and a composite performance index.

In educational work settings, two Rand corporation evaluation studies (Berman et al., 1977; Armor et al., 1976) found teachers' sense of efficacy was positively related to the achievement of the project goals being evaluated. In a study involving 120 teachers in a staff development program, Guskey (1987b) found teachers with high senses of efficacy rated an innovation (in this case, mastery learning) as more important, more congruent with their present teaching practices, and less difficult to implement than did teachers with lower senses of efficacy. Guskey (1988) concluded:

Assuming that teachers who express high levels of personal efficacy, who like teaching, and who feel confident about their teaching abilities are, indeed, highly effective in the classroom, these teachers also appear the most receptive to . . . new instructional practices. (p. 72)

### Self-Efficacy and Choice

Since self-efficacy springs from an individual's cognitive appraisal of his/her abilities, Bandura (1986) maintained self-efficacy strongly influenced an individual's choice of work/life settings and activities, the type of skills s/he acquired, the effort s/he expended on tasks, and the initiation of and level of coping behaviors when s/he is confronted with obstacles. People tend to avoid activities and situations they believe will exceed their capabilities, but they are more willing to undertake challenging activities and pick complex environments if they judge themselves capable of managing those tasks and environments. These perceptions can be shaped, according to Bandura (1988), by both the social and leadership influences in the work environments surrounding the individual.

This process is well-illustrated in the research investigating self-efficacy and career choice (Betz and Hackett, 1986; Lent and Hackett, 1987; Muira, 1987). Collins (1982) found that in doing career planning, the higher a subject's beliefs in his/her efficacy was, the wider the range of career options seriously considered regardless of gender. He also found perceived self-efficacy predicted interest and choice better than actual ability. Bandura and Schunk (1981) suggested that subjects with low self-efficacy tend to practice

fewer coping efforts in difficult situations and tend to choose retreat or surrender as their preferred coping strategy when confronted with adversity, thus indirectly reinforcing their low senses of individual efficacy. Those who have a strong belief in their capabilities exert greater effort to master difficult challenges (Cervone and Peake, 1986; Bandura and Cervone, 1983, 1986). The researchers also noted that individuals who persisted in the face of obstacles emerged from the experience with enhanced self-efficacy once they were successful. Bandura (1986) also hypothesized from his numerous studies that efficacy expectations influence choice of environment. For example, he said, an individual with high self-efficacy, if all other factors are constant, might actively seek to apply for new positions in new settings, while an individual with a low sense of efficacy would choose to remain in a setting that gave him/her safety or, at least, would not require of him/her a new challenge which might erode his/her current level of self-efficacy. Consistently, efficacy research reinforces the conclusion that the stronger an individual's perceived sense of efficacy is, the higher the goals s/he will set and the firmer his/her commitments will be to achieving those goals (Bandura and Cervone, 1986; Locke et al., 1984).

#### Factors Involved in Perceived Inefficacy and Dysfunction in the Workplace

Students of organizational behavior have suggested several organizational factors which contribute to the lowering of self-efficacy among

organizational members and an increase of negative behavior (Block, 1987; Conger, 1988; Kanter, 1979, 1983). Bandura (1986) maintained self-efficacy beliefs were the product of a process of self-persuasion that relied on diverse sources of information that had to be selected, weighted and integrated. If people's self-efficacy beliefs are firmly established, he theorized, they remain resilient to adversity in taxing situations. People who believe they can exercise control over potential threats do not conjure up fearful cognitions and, therefore, are not perturbed by them. Those individuals who believe, however, that they have only tenuous control over a situation are likely to experience high levels of stress and risk becoming dysfunctional over a period of time. Individuals with such beliefs will tend to dwell on their inadequacies and view many aspects of their environment as threatening, according to Wood and Bandura (1989).

Bandura (1988) also noted that disbelief in one's capabilities to attain valued goals will affect one's sense of efficacy and help create depression and dysfunction in the subordinate. Block (1987) described how increased bureaucracy and authoritarian leadership styles foster dependency, denial of self-knowledge from direct experience, and the formation of less meaningful organizational goals by subordinates. According to Conger (1988, 1989), conditions which lower self-efficacy among organizational members are as follows: (1) when the organization itself is undergoing reorganization or reform, (2) when new programs or startup ventures are being initiated,

(3) when work settings are led by highly controlling supervisory leaders, and/or (4) when work organizations have established extremely demanding organizational goals. Kanter (1977, 1983) maintained that convoluted or inadequate organizational communication systems, lack of collegial networks, limited control over or access to resources, and restrictive job designs all can contribute to a sense of powerlessness or inefficacy in subordinates. She commented:

People held accountable for the results produced by others, whose formal role gives them the right to command but who lack informal political influence, access to resources, outside status, sponsorship, or mobility prospects are rendered powerless in the organization. . . . They lack control over their own fate and thus must be dependent. . . . (Kanter, 1983, p. 186)

Examples of job positions or work groups Kanter (1983) identified as frequently open to such attacks on their sense of self-efficacy were first-line supervisors [the group Lipsky (1980) labeled as street-level bureaucrats in public service organizations -- which includes teachers], certain staff positions which lack formal authority lines, women and minorities. Wood and Bandura (1989) noted that a strong sense of efficacy is necessary if one's task orientation is to be maintained in the face of organizational problems and failures. Bandura and Dweck (1988), as cited in Wood and Bandura (1989), concluded inefficacious individuals in organizations tend to become more self-diagnostic (i.e., *What's wrong with me? With this place?*) than involved with doing the task.

Wood and Bandura (1989) also found in an organizational simulation task that managers who perceived their decision-making ability to be reflective of their inherent cognitive aptitude were beset by increasing doubts about their managerial abilities if they encountered problems. They became more and more erratic in their decisional activities, they lowered their organizational aspirations and, consequently, they achieved progressively less within the organization they were managing. In contrast, managers who viewed competency in decision-making as an acquirable skill with little relationship to cognitive aptitude had a highly resilient sense of personal managerial excellence.

In brief, organizational factors which appear to negatively influence self-efficacy beliefs of organizational members have been categorized into four major areas: (1) overall organizational factors, (2) leadership/supervisory styles and behaviors, (3) reward systems, and (4) job design (Conger and Kanungo, 1988).

### Leadership

Summarizing the literature in the area of leadership is a difficult task. As Hornstein et al. (1987) observed, "The romance between the behavioral sciences and leadership has lasted almost a century. It's difficult to compress the more than 3,000 investigations it has produced into a few pages without some distortion" (p. 56).

This wealth of research has been fostered by a continuing need to understand what creates effective leaders. This need has become particularly pressing in an increasingly organizational-focused world. As James MacGregor Burns noted in his landmark work, *Leadership* (1978), "One of the most universal cravings of our time is the hunger for compelling and creative leadership" (p. 10).

### Two Root Traditions of Leadership

Fiedler and Garcia (1987) theorized that the study of leadership is actually rooted in two antagonistic traditions: the feudal and the bureaucratic traditions of organization. Throughout both the 19th century and the first half of the 20th century, the view of leadership supported by the feudal tradition dominated. This view of leadership saw the leader as a "great man" who forged a highly personal relationship with his followers. Leadership positions were ordained by "divine right" from God. Since leadership rights came as a result of "God's will," subordinates had an equally ordained role to be subservient and obedient. A critical component of the relationship was an almost religiously reinforced bond of personal loyalty between the leader and his followers. These ties traditionally were emotionally forged, rather than purely rationally created. To oppose one's prince, one's master, one's husband, was to challenge God's order. As a result of this tradition in leadership, it is not surprising that one of the main focuses of early formal leadership research was the study of personality traits and leadership styles

in an attempt to identify the charisma (special "gift") that separates the leader from the follower (Bass, 1981).

In sharp contrast to this feudal tradition is the bureaucratic tradition best traced in the writings of Max Weber (1947). Organizational members in the bureaucratic tradition are viewed as part of an interchangeable network of powerholders supporting and giving fealty to an organization. Historically, the bureaucratic system organized large bodies of people so they felt loyalty to a system which usually managed a far-flung empire -- Rome, Ancient China. Loyalty was to the organization; for example, in the Roman legion, a foot soldier gave his loyalty to Rome and the legion rather than to the person of his Tribune. In the bureaucratic system, the role of the leader is clearly established and constrained by written policy concerning duties, responsibilities, privileges, and limitations. In addition, the loyalty of both the leader and the led is directed to the organization and the organization's goals rather than to the person of the leader as in the feudal tradition. This end is accomplished, in part, by written policies of frequent promotion and transfers within the organization which tend to discourage strong, lasting personal ties between the leader and the led. Such practices also tend to discourage the leader from developing a personal fiefdom within the organization which could pose a threat to the overall organization. Essentially, the leader-follower relationship supported by the bureaucratic system is almost the antithesis of the model supported by the feudal tradition.

In the literature of leadership, bureaucratic theory is best represented by a research focus on situational issues as the critical factor in understanding leadership functions. This focus is especially prominent in the research in leadership coming from structuralists (i.e., Simon, 1947; Kerr and Jermier, 1978). Structuralists see organizational performance as dependent on the characteristics of the organization rather than on those of the leader. Howell and Dorfman (1986) and Kerr and Jermier (1978) have investigated various "substitutes for leadership," that is, organizational tasks and structures which would make a leader unnecessary in an organization. The substitutes investigated by the researchers included, for example: highly structured tasks, organizational members with strong professional training and identification, and a controlling technology which would establish what organizational members must do. Ultimately, structuralists envision an organizational design which would permit the free flow of information, effective decision-making, and the exercise of authority without an individual designated leader.

This brief overview of the organizational traditions which preceded the formal study of leadership emphasizes the essential conflict and the underlying tension between the feudal and bureaucratic views of the leader. Yet, in modern organizations, these two conceptions have been forged into an uneasy marriage to obtain the idea of the modern leader. The conflict between these two root conceptions has also resulted in leadership study appearing to the casual student to be almost chaotic in its focus with studies

covering a range of topics from key personality traits appropriate for all leaders to hypothesizing about organizational designs which would require no formal leader (Bass, 1981).

Keeping in mind the conflicting ideas about leader roles in the two organization traditions for humans, it is possible to establish three distinct patterns or phases of research in serious leadership study when reviewing the literature. First, study focused on identifying leader traits as the key causal agent leaders used to gain subordinate commitment and performance (Bass, 1981). The next phase of research focused on the task of analyzing the concept of leaders in terms of what successful leaders *did* rather than who they *were*. The goal of this study was to identify an ideal set of common leader behaviors which all leaders could use. During this phase of leadership study, however, it rapidly became apparent to researchers that the situation in which leadership was occurring was possibly more critical in shaping leader behavior than was the leader him/herself. The third phase of leadership study has resulted, therefore, in an opening up of the concept of leadership even further. It dismissed the idea that successful leaders exhibited the same behaviors or traits in all situations. According to the theory in the third phase of study, it is necessary to specify the situational conditions or contingencies under which a leader operates in order to have any clear understanding of how leadership functions. This contingency approach to leadership study continues to be the contemporary paradigm

shaping study of the topic (Hoy and Miskel, 1982; Immegart, 1988; House and Baetz, 1979).

Another result of the original two antagonistic conceptualizations of the leader is the fact that definitions of leadership have become almost as varied as the scholars who have studied the topic. Amitai Etzioni (1961) defined leadership as "power based predominately on personal characteristics, usually normative in nature" (p. 116). Fred C. Fiedler (1967) defined the leader as "the individual in the group given the task of directing and coordinating task-relevant group activities" (p. 8). Ralph M. Stogdill's (1950) definition of leadership stressed influence exercised within a formal structure: "Leadership is the process of influencing the activities of an organized group toward goal setting and goal achievement" (p. 4). James MacGregor Burns' (1978) leadership definition highlighted the leader-follower relationship:

Leadership over human beings is exercised when a person or persons with certain motives and purposes mobilize(s), in competition or conflict with others, institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers.  
(p. 18)

Katz and Kahn (1978) identified the major components of the concept of leadership as follows: (1) an attribute of an office or position, (2) a characteristic of a person, and (3) a category of behavior. In summary, the range of these leadership definitions serves to illustrate that a complete understanding of the concept of leadership and how it operates in organizations remains elusive despite an immense amount of study.

### The Trait Approach

Aristotle, in discussing leadership, claimed, ". . . from the hour of birth, some are marked for subjection, others for rule." This view of leadership is called the "great man" theory of leadership (Bass, 1981). It was the ruling paradigm in leadership study from the turn of the century until the 1940s. The research was directed at identifying those unique personality traits possessed by the likes of Napoleon, Hitler, Lincoln, Gandhi and Roosevelt (and their lesser recognized counterparts in educational, military, and industrial settings) which differentiated those individuals from the mass of the led.

Traits studied divided into four broad categories: (1) physical and constitutional traits, (2) skill and ability traits, (3) broad personality characteristics, and (4) social characteristics (Jago, 1982). The organizational implications, if an identified group of traits which positively affected leader effectiveness could be found, were potentially far-reaching. The selection of people most likely to succeed in leadership roles, as a result of such a clearly established group of traits, could be accomplished in a straightforward and mechanical manner: if the individual possessed the desired traits, s/he was a leader; if not, s/he was not a leader.

Unfortunately, however, the conception of leadership as a "personality characteristic" or "trait" proved to be an oversimplified concept. In 1948, Stodgill completed a comprehensive review of trait studies of leadership between the years of 1904 and 1947. He concluded that while the cases had

identified five broad categories of interest -- (1) capacity, (2) achievement, (3) responsibility, (4) participation, and (5) status -- the findings of trait leadership study were negligible and inconclusive. This review, coupled with several other major literature reviews (Mann, 1959) completed during the 1940s and 1950s, resulted in the trait approach being regarded as inadequate for explaining the construct of leadership (Bass, 1981).

More recent reviews (Vroom, 1976), however, have suggested a few traits are found which consistently do correlate with effective leaders; for example, intelligence, dominance, self-confidence, high energy or activity level, and task-relevant knowledge. Recently, Fiedler and Garcia (1987) and Fiedler and House (1988) have theorized that traits such as a leader's intellectual ability, experience, and the conditions of stress present in a leadership situation do help determine leadership and group performance. However, the current status of pure trait leadership study in the field supports the conclusion that the trait approach has been inadequate in explaining the complexities of leadership (Yukl, 1989).

### The Study of Leadership Styles

Intertwined with research of personality traits in early scientific leadership study was the concept of leadership style as a critical factor. Style referred to the action disposition or fixed pattern of behaviors displayed by a leader in a leadership situation (Jago, 1982). Style conceptualizations have taken a variety of forms in leadership investigations, ranging from idealized categories

(such as heroes, princes and supermen) (Jennings, 1960) to typological classifications to the most popular categorization -- the dichotomous classification of initiating structure and consideration (Hemphill and Coons, 1957). Other leadership theorists and researchers have used a similar two aspects of leadership behavior; for example, system-oriented and person-oriented (Brown, 1967), nomothetic and idiographic (Getzels and Guba, 1957), task and social leaders (Bales, 1954), employee and production orientations (Katz et al., 1950), and democratic and autocratic (White and Lippitt, 1960). This duality of key leadership dimensions reinforces the duality of the initial root traditions of the feudal and bureaucratic traditions discussed by Fiedler and Garcia (1987).

Style studies have varied greatly in rigor and substance, according to Stogdill (1974). As a result, the overall conclusions a reviewer can arrive at concerning style studies are less precise than the conclusions drawn from the review of trait approach studies. Bass (1981) does conclude that the early goal and direction of this research -- to find the "right" or "best" style -- has, for the most part, been recognized to be an empty quest. It has become apparent that the most effective or successful leaders demonstrate style variability; that is, they score high on both of the dichotomous categorizations, and they select leadership styles in relation to the specific situation, considering both context and task (Jago, 1982; Stogdill, 1974).

As a result of leadership style research, the complexity of the leadership concept became increasingly evident, and the focus of leadership research rapidly shifted from style to leader behaviors. Ralph Stogdill, who worked closely with the researchers at Ohio State University who identified the dual dimensions of Consideration and Initiation of Structure, proposed in 1963 that leadership involved at least 12 leader behavior dimensions. Stogdill used his 12 dimensions to develop the leadership instrument, the LBDQ-Form XII. In 1982, Hoy and Miskel noted that Stogdill's conceptualization of leadership is "one of the more comprehensive delineations of leadership to date" (p. 224). They also noted that Stogdill's 12 separate behavior dimensions of leadership can be collapsed to support a dual component perspective of leadership in relation to system-orientation and person-orientation, as presented in Table 1. This duality that Hoy and Miskel established in relation to Stogdill's 12 leadership dimensions also is supportive of the duality of the original traditions of feudalism and bureaucracy -- feudalism being represented by the personal aspect, bureaucracy being represented by the organizational aspect.

Table 1. Hoy and Miskel's categorizations of Stogdill's leadership dimensions and descriptions.

System-Oriented	Person-Oriented
<b>Production emphasis:</b> Applies pressure for productive output.	<b>Tolerance of freedom:</b> Allows staff members scope for initiative, decision, and action.
<b>Initiation of structure:</b> Clearly defines own role and lets followers know what is expected.	<b>Tolerance of uncertainty:</b> Is able to tolerate uncertainty and postponement without anxiety or upset.
<b>Representation:</b> Speaks and acts as the representative of the group.	<b>Consideration:</b> Regards the comfort, well-being, status, and contributions of followers.
<b>Role assumption:</b> Actively exercises the leadership role rather than surrendering leadership to others.	<b>Demand reconciliation:</b> Reconciles conflicting demands and reduces disorder to system.
<b>Persuasion:</b> Uses persuasion and argument effectively; exhibits strong convictions.	<b>Predictive accuracy:</b> Exhibits foresight and ability to predict outcomes accurately.
<b>Superior orientation:</b> Maintains cordial relations with superiors, has influence with them, and strives for higher status.	<b>Integration:</b> Maintains a close-knit organization and resolves inter-member conflicts.

### The Study of Effective Leader Behaviors

While leadership style research failed to discover a stable or situationally invariant leadership style or pattern, it did help scholars of leadership to formulate the idea that certain patterns of behavior might be more effective than other patterns. Consequently, by the late 1940s, researchers of leadership had begun a search for behavior correlates of effective leadership. It was believed that knowledge of the behavior patterns which characterized effective leaders would provide a rational basis for training actual or potential leaders. Therefore, two major research programs in leadership were established, one at Ohio State University (reference was made earlier to the fact that Stogdill worked with this program) and one at the University of Michigan (Bass, 1981).

The Ohio Leadership Studies (Bass, 1981; Stogdill, 1974; Halpin and Winer, 1957) began with an attempt to identify, via factor analysis, dimensions needed to characterize the differences in the behavior of leaders. Originally, four factors were identified, but two of the factors (the previously mentioned Consideration and Initiating Structure) accounted for the greatest portion of the variance. Subsequently, these two dimensions received the major focus of the study. These two dimensions can be interpreted as task-oriented and socio-emotional-oriented leadership dimensions. As noted earlier in this review, other researchers have labeled these two dimensions differently, but the concepts are consistently similar to the concepts identified by the Ohio

researchers as Consideration and Initiating Structure. Essentially, leader Initiation of Structure involves the degree to which the leader clarifies and defines his/her own role and lets subordinates know what is expected of them in the organization and in relation to work tasks. Consideration is conceptualized as the degree to which the leader pays regard to the comfort, well-being, status and satisfaction of organizational subordinates. Halpin (1966) noted Consideration includes supervisor behavior indicative of "friendliness, mutual trust, respect, and warmth" (p. 37). Halpin's description of Initiation of Structure emphasized task-orientation concerns. He stressed that supervisory behavior appropriate to this dimension involved organizing and defining group responsibilities and goals, and the leader's role in relation to the group.

The initial method for measuring these variables was the Leader Behavior Description Questionnaire (LBDQ) developed by Hemphill and Coons during the Ohio studies (Bass, 1981). The other instruments also frequently used to measure the dimensions are the Supervisory Behavior Description Questionnaire (SBDQ) and the revised LBDQ, the LBDQ-Form XII. Schriesheim et al. (1976), in a review of the findings on Consideration and Initiating Structure, noted that the items comprising the dimension of Initiating Structure differed in content somewhat, depending upon the instrument being used. The LBDQ scale consists largely of items describing a leader who actively communicates, facilitates information sharing, and structures the work task which the subordinates are required to do. The LBDQ-Form XII uses 10 items to

measure Initiation of Structure. As measured by that scale, Structure is defined very similarly to the LBDQ. It focuses on delineating relationships between the leader and the group and in how clearly the leader has established well-defined patterns of communication with the group in order to structure the work. In contrast, the SBDQ consists mainly of items describing highly production-oriented leaders who are both autocratic and punitive.

In their analysis of the findings of research on these two leadership dimensions, Schriesheim et al. (1976) noted what instrument was used in each research study. As a result, they were able to develop some empirical generalizations concerning Consideration and Initiating Structure. They reviewed over 50 studies. The major conclusions drawn from this analysis of the research are summarized as follows:

- (1) Leaders who are high on Consideration tend to have subordinates who are more satisfied with their leader than those who have leaders who are low on Consideration (Halpin and Winer, 1957; Halpin, 1966).
- (2) Leaders who are high on Consideration are also more likely to have fewer absences and lower grievance rates (Fleishman, 1973).
- (3) High occupational level employees (i.e., subordinates who have high knowledge about the work tasks they are being asked to perform) consistently reacted more favorably to leader Initiating Structure. This generalization is consistent with the finding that task-oriented leadership is acceptable when the task is satisfying to the subordinates. Gustafson

(1968) and Gustafson and Harrell (1970) found that under conditions where the tasks are intrinsically satisfying to group members or members are committed to task accomplishment, task-oriented leadership is viewed as instrumental to group success, and there is also less need for socio-emotional leadership.

- (4) Bales (1958) found task-oriented leaders tended to be disliked. This finding was especially strong in groups that did not have cohesive goals. However, for task-oriented leaders who made it possible for subordinates to give feedback, raise objections, make qualifications, do questions and counter-questions, no relationship existed between task orientation (initiating behavior) and liking. For those task-oriented leaders who did not permit such feedback, the relationship between task orientation and liking was negative.
- (5) Schriesheim et al. (1976) also concluded that when the revised LBDQ-Form XII Initiation of Structure scale was used to measure leader behavior of first-level supervisors of non-manufacturing employees performing routine tasks (school principals would fall into this category), correlations with subordinate satisfaction were positive when the leader was high on Initiation of Structure, although often the findings were marginally significant. In light of Bales' (1958) work, it can be concluded if the supervisor permits employee feedback, it is unlikely that a supervisor of non-manufacturing employees would have negative reactions from his/her subordinates if s/he simply engaged in task-oriented leader behaviors.

- (6) Lowin and Craig (1968) reported that supervisory personnel responded with different behavior patterns depending on how they (supervisors/leaders) perceive the employee's competence. Employees perceived as being more competent were treated with more Consideration, less Initiation of Structure and, overall, received less close supervision. Farris and Lim (1969) reported leaders who believed their subordinates were high performers displayed greater supportiveness and greater goal emphasis and generally were perceived by their subordinates as more sensitive and nonpunitive. Herold (1977) and Greene (1975) found similar information regarding leader use of task-oriented and socio-emotional-oriented behaviors with perceived higher performing personnel. Crowe et al. (1972) reported leaders became more democratic when subordinates exercised initiative, offered new ideas and set goals; they became more autocratic with subordinates who were passive, unquestioning and leader dependent.
- (7) House (1971) hypothesized that leader Consideration will have its most positive effect on the work satisfaction of subordinates who work on stressful, frustrating, or dissatisfying tasks. This hypothesis has been tested and confirmed in several studies (House and Baetz, 1979).
- (8) While Consideration is almost always positively associated with subordinates' satisfaction, especially with dissatisfying tasks, it is not always associated with strong subordinate performance (Immegart, 1988; Jago, 1982).

### The Michigan Studies

Historically, the second major research project to focus on identifying key leader behaviors was completed by the Survey Research Center at the University of Michigan (Bass, 1981). In purpose, the Michigan studies were similar to the Ohio State studies since the investigators were interested in identifying the behavioral differences between more and less effective leaders. Unlike the Ohio State group, however, the Michigan research group did not focus on statistically establishing the dimensionality of leader behavior. Their measures of leadership tended to be more casual and loose in definition and appear to vary somewhat from study to study. Likert (1961, 1967) reported many of the key findings of the Michigan research. These findings can be summarized as follows: more effective leaders (1) tend to have relationships with their subordinates which are supportive and enhance the subordinates' sense of personal worth and importance, (2) use group rather than person-to-person methods of supervision and decision-making, and (3) tend to set high performance goals.

In summary, the study of leader behaviors has strongly affirmed the importance of situational variables in understanding leadership phenomena. Leader behavior research also has succeeded in identifying leader behavior dimensions which have guided and shaped the study of the topic to this day. However, the major conclusion that researchers in this phase of leadership made was largely negative in relation to the original research objective. This

overall conclusion in relation to the original objective of leader behavior research was well-stated by Jago (1982):

. . . work groups, functional departments, hierarchical levels, and entire organizations develop unique 'climates' or 'cultures' favoring certain leadership practices. Through selection or socialization processes, managers entering such settings either already possess or quickly acquire the desired leadership style. By their behavior they 'fit in' thereby sustaining the norm. . . . Thus the broader context within which a leader operates may be as important an antecedent of leader behavior as his or her own predisposition. (p. 322)

### The Investigation of Situational Issues

By the mid-1960s, the emphasis of leadership study had clearly moved beyond attempting to identify a fixed set of traits or established patterns of behavior which would be equally adaptable in all leadership situations. As Jago (1982) observed, by this point in leadership study, scholars had concluded that "leadership depends on the situation" (p. 322). Associated with this new focus on understanding situational variables as possibly the critical variable for understanding leadership came a modified definition of leadership which moved away from the focus on the feudal tradition of the "great man" leader. The new definition of leadership enunciated in situational research aligned itself strongly with concepts from the bureaucratic tradition; leadership was viewed as "a role to be performed, a job to be done, a set of organizational functions to be carried out" (Vroom, 1976, p. 1533). Leadership in situational studies focused on two primary concerns in order to identify

more successful leaders from less successful ones: (1) the achievement of goals external to the organizational group, and (2) the maintenance or strengthening of the group itself (Cartwright and Zander, 1968).

### Participative Leadership Situations

Since the study of leadership behaviors had so clearly identified Consideration (as defined by the Ohio studies) as a factor in worker job satisfaction and group commitment, one set of situations which received a sizable amount of study by situational leadership researchers consisted of situations employing participative decision making and participative supervision by the leader. Maier's (1970) work identified a range of specific behaviors which successful participative leaders used. According to Maier, successful participative leaders:

- (1) shared information with subordinates;
  - (2) prevented dominant personalities from having disproportionate influence;
  - (3) actively solicited opinions, facts, and reactions from reticent subordinates;
  - (4) assisted subordinates in communicating with one another;
  - (5) minimized blame-oriented statements from organizational members;
  - (6) managed issue discussions so members used majority of discussion to focus on identified issue;
  - (7) delayed evaluation of solutions until all solutions had been presented;
- and

(8) actively guided the screening process in evaluating and selecting a solution.

As Maier (1970) noted, all of these identified behaviors were trainable skills. In a review of over 30 laboratory-based studies concerned with the degree with which participative leadership resulted in effective decisions, Maier found that subordinate participation in the decision-making process resulted in both *higher* quality decisions being made and in *greater* overall acceptance of the decision by organizational members in all of the studies.

Mitchell (1973) outlined four effects participative leadership had on subordinate work commitment and performance. First, participative approaches led to greater clarity concerning various goals (i.e., subordinates more clearly understood what the goals were). Second, since subordinates were involved in selection of goals, subordinates demonstrated greater commitment in having the organization attain the goal. Third, increased involvement with the larger organizational issues resulted in workers feeling they had increased control over their work experiences. This feeling of greater autonomy, Mitchell hypothesized, would result in increased effort and performance. Finally, Mitchell noted, when individuals participated in the decision process, the decision was made in the presence of others. These others, consequently, knew what was expected of subordinates and would apply social pressure for attainment of the goal. Motivation of workers, therefore, increased when pressure came from social factors as well as formal organizational factors.

Filley et al. (1976) reviewed 33 separate studies which investigated the effects of participative leadership. Nineteen of 20 laboratory experiments or field experiments in which the satisfaction of workers was measured demonstrated a positive relationship between participative involvement and worker satisfaction. Seventeen of 22 studies reviewed in which the variables of participation and production were investigated established that a positive relationship existed between these variables. Filley et al. (1976) also concluded that participative leadership was not likely to have an effect when subordinates' work tasks were clear and routine. The effects of participation depended largely on the nature of the task involved; the more complex and ambiguous the task, the more important participation became to subordinates. House and Mitchell (1974) theorized in explanation of this phenomenon that complex, ambiguous tasks tend to be ego-involving for subordinates (i.e., the challenge of the task involves self-perceptions by the subordinate in terms of his/her intelligence and abilities); hence, there is a greater desire on the part of the subordinate to influence decisions that could affect his/her success in relation to the task. Filley et al. (1976) noted in their review of the relevant studies that intelligence and/or specialized knowledge also appeared to influence the relationship between participative approaches and their effects. They concluded that when subordinates' knowledge of the task or overall intelligence is high, participation has important consequences for subordinates' motivation and commitment. Conversely, when

subordinates' intelligence level or knowledge level of the task is low, participation generally has an insignificant effect on subordinates' performance and sometimes can have a negative effect on their satisfaction. The researchers noted it was not clear from the studies whether subordinates performing such tasks responded more positively to participative leadership because they were more ego-involved in their work [as House and Mitchell (1974) suggested], or because they had higher competence in relation to the task, or both.

Individual belief systems concerning the appropriateness of subordinate participation in organizational situations have also been found to moderate the relationship between satisfaction and the participative process. Vroom (1959) found subordinates who have high needs for independence, are nonauthoritarian, and respect nonauthoritarian behavior in others are more satisfied and more productive under conditions of participative decision making and supervision. House (cited in House and Baetz, 1979) maintained, however, that so-called personality beliefs would not affect this relationship when ego-involving tasks were part of the situation, since subordinates would be desirous of influencing how work on such tasks was defined, regardless of whether they were predisposed by personality beliefs to support participation. Schuler (1976) tested this concept and, as predicted, in nonrepetitive, ego-involving tasks, Schuler's subjects (regardless of their personality beliefs) were more satisfied with participative leaders. On repetitive tasks, however, the amount of authoritarianism of subordinates moderated the effects of

participation in relation to satisfaction. Schuler's study did not look at quality or degree of performance or motivation.

Studies also have investigated a range of other situational variables. Hills (1963) reported that a leader must be successful in obtaining resources from other parts of the organization and in representing subordinates to superordinates in a positive way in order to be considered effective. House and Baetz (1979) noted leaders have a tendency to model their leadership behaviors after their superiors and to conform to the expectations of superiors and subordinates in selecting their leader behaviors. Other environmental factors, i.e., stress levels in the situation, ambiguity, etc., have also been found to influence leadership approaches (Jago, 1982).

In conclusion, the situation study of leadership has strongly confirmed the importance of a range of situational variables in understanding how leadership functions. The major outcome of situation-oriented investigations of leadership has been the identification of reciprocal effects between leader behaviors and other variables. This recognition of reciprocity led researchers to conclude that effective leadership research could only be accomplished with research designs which took into account this concept of reciprocity.

#### Fiedler and the Contingency Approach to Leadership

The situational study of leadership focused very strongly on external environmental factors which shaped the leadership behaviors of leaders and

tended to ignore the internal beliefs and attitudes of the leader. The work of Fred Fiedler (1967) reintroduced some concern about internal personality variables of the leader and how such variables interacted with the situational factors identified by situational researchers. Fiedler called his theory of leadership the Contingency Approach to Leadership. The personality variable that Fiedler investigated in his 1967 research (whether the leader was person-oriented or task-oriented) was measured by the Least Preferred Coworker (LPC) scale. Fiedler theorized that successful and unsuccessful leaders could be identified by understanding the interaction of leader orientation as measured by the LPC and situation favorability (essentially such characteristics as leader-member relations, task demands, and leader position of power in the actual leadership situation).

In several studies, Fiedler found that task-oriented leadership was related to leadership success in situations which had both very high and very low situational favorability. Person-oriented leadership performed most successfully in situations where the leader had moderate favorability. From his research, Fiedler concluded leadership success was "contingent" on the match between the leader's task (or person-orientation) and the degree to which the situation allowed the leader control and influence over various critical environmental factors. Fiedler's research clearly challenged the idea that the individual attitudes of the leader (in this case, the leadership orientation toward task or person) was not a factor in understanding leadership.

Essentially, Fiedler's research helped correct some of the extremes which had developed in situational studies and helped focus leadership scholars on an explicit consideration of *both* situational variables and perceptual considerations of the actual leader.

Current leadership research is still very focused on understanding the overarching of the interactions between situational and personal factors (so-called contingencies), as suggested by Fiedler (1967). Essentially, what leadership researchers are now attempting to do is to pull together the two conflicting traditions -- the bureaucratic and the feudal -- to get a more precise grasp on the complex interactions involved in successful leadership. Researchers such as Fiedler, House, Bass, Calder and Mitchell have suggested increasingly refined conceptualizations of leadership involving both personal characteristics and situational factors in a continued effort to fully understand the concept.

#### Path-Goal Leadership Research

The theoretical and research work of House and his colleagues (Filley et al., 1976; House, 1971; House and Mitchell, 1974; House and Dessler, 1974; House and Baetz, 1979) related to the use of path-goal theory in the study of leadership represents a very important forward step in contingency investigations. Based on the early work of Evans (1970) and using a situational motivation theory [Vroom's (1976) theory of expectancy motivation], House and others have suggested that effective leader behavior facilitates the

attainment of the subordinate's desires contingent on effective performance by the subordinates. Filley et al. (1976) concisely stated the theory as follows:

Briefly, the theory consists of two propositions. The first proposition is that leader behavior is acceptable and satisfying to subordinates to the extent that they see it as either the immediate source of satisfaction or as instrumental to future satisfaction. The second proposition of the theory is that leader behavior will be motivating to the extent that (1) it makes satisfaction of subordinate needs contingent on effective performance, and (2) it complements the environment of subordinates by providing the coaching, guidance, support, and rewards which are necessary for effective performance and which may otherwise be lacking in subordinates or their environments. These two propositions suggest that the leader's strategic functions are to enhance their satisfaction with their job, and their acceptance of the leader. . . . The strategic functions of the leader consist of (1) recognizing and/or arousing subordinate's needs for outcomes over which the leader has some control; (2) increasing personal payoffs to the subordinates for goal attainment; (3) making the path to those payoffs easier to travel by coaching and direction; (4) helping subordinates clarify expectancies; (5) reducing frustrating barriers; and (6) increasing opportunities for personal satisfaction contingent on effective performance. Two classes of situational variables are asserted to be contingency factors; these are (a) personal characteristics of subordinates, and (b) environmental pressures and demands which subordinates must deal with. . . . (p. 254)

In summary, House and his colleagues maintained the primary role of the leader was to complement that which "is missing" in the organization in order to enhance subordinate motivation, satisfaction, and performance. What "is missing" was to be established by a careful investigation of the following

variables: (1) the environment, (2) the work tasks, and (3) the competence and motivation of subordinates. They also maintained the leader should work to enhance subordinate competence by coaching, clarification of organizational goals, and general support.

The research designed to test Path-Goal Theory has yielded supporting results. Several personality belief characteristics, for example, have been found to affect the relationship between leader behavior and the satisfaction of subordinates. Runyon (1973) and Mitchell et al. (1975) found that a subordinate's score on the Locus of Control Scale (Rotter, 1966) influenced the relationship between participative leader behaviors and subordinate satisfaction. Individuals who were low on the scale were more satisfied with participative leader behaviors than individuals who had high scores. High-scoring individuals were more satisfied with more directive leadership. Another personality belief characteristic House and Dessler (1974) investigated as influencing the relationship between participative leader behaviors and subordinate satisfaction was a subordinate's tendency to be authoritarian. Subordinates who had strong leader dependencies were found to be less receptive to participative leader behaviors and, in general, were receptive to directive and even authoritarian leadership. A final area of personality characteristics which House (according to House and Baetz, 1979) hypothesized as moderating the effect of leader behavior is the subordinates' perceptions of their own abilities in relation to assigned tasks. As previously discussed in

the participative leadership section of this review, the higher a subordinate's perceptions of his/her abilities are in relation to the task demands of the organization, the less the subordinate will be willing to accept directiveness, closeness of supervision, and coaching behaviors from the leader, and the more the subordinate will press for a collegial work relationship with supervisors. The evidence accumulated from the initial investigations of personality characteristics of subordinates and their impact on leadership activity has led Bass (1981) to recommend: "Personality factors need to be taken into account in investigating structured situations" (p. 327). Griffin (1979) also proposed a need to study prescriptions combining Path-Goal Theory and subordinate achievement and self-actualization.

Path-Goal Theory also asserts that effects of leader behavior on the motivational and commitment level of subordinates will be contingent on other factors in the organizational environment: (1) the nature of organizational tasks, (2) the formal authority system of the organization, and (3) the nature of the primary work group of the subordinate. House (1971) theorized each of the environmental factors mentioned above could act upon subordinates in three ways. First, the factors might serve as stimuli that would motivate and direct subordinates to perform the tasks desired by the organization. Second, the factors might act to constrain variability in subordinate behavior in the organization. Constraints in the organizational environment could function positively to clarify expectations, thus helping subordinates to be successful and preventing them from experiencing confusion and conflict.

However, constraints could also function negatively to the extent that they might restrict subordinate initiative or discourage subordinates from increasing their effort to attain goals. Finally, environmental factors might also serve to clarify or actually to provide rewards and benefits to the subordinates as they do their jobs. House and Baetz (1979) argued that it was possible for subordinates to receive necessary cues to do their jobs and the needed rewards for satisfaction from other sources than their designated leader/supervisor. Historically, in educational situations, for example, students have functioned as a more reliable reward source than supervisors for teachers (Cuban, 1984).

In developing Path-Goal Theory, Filley et al. (1976) asserted that when goals and paths are apparent because of the routine nature of a task, clear group norms, or objective controls of the formal authority systems, attempts by leaders to clarify paths and goals will be redundant and will be perceived by subordinates as being unnecessarily controlling. Although such control initially may increase performance by preventing malingering among subordinates, overall it will result in decreased satisfaction. They also asserted the more dissatisfying or ambiguous the task is, the more subordinates resent leader behavior focused on increasing productivity or enforcing compliance with organizational rules and procedures unless the leader accompanies such pressure with increased support, as discussed in the second proposition of leader functions. Overall, they noted, leader behavior will only be motivational

to the extent that it helps subordinates to cope with environmental uncertainties, threats from the outside, and sources of frustration. The leader should motivate the subordinate by providing coaching, guidance, support, and rewards necessary to achieve effective performance.

While many possible questions are suggested by Path-Goal Theory, empirical research has concentrated primarily (as noted by Jago, 1982) on two specific hypotheses:

- (1) Leader initiating structure will contribute to the satisfaction of the followers engaged in ambiguous (i.e., unstructured) tasks and contribute to the dissatisfaction of subordinates engaged in clear (i.e., structured) tasks.
- (2) Leader consideration alone will have its most positive effect on the satisfaction of subordinates engaged in clear (i.e., structured) tasks.

These hypotheses suggest that when task demands are unclear or when formal procedures and policies are ambiguous, structuring leader behavior complements the task by providing the required guidance and instruction needed to clarify the paths to goal attainment. On the other hand, when task demands are self-evident, as in the case of highly routinized or formalized work roles, subordinates will resent a leader's attempts to initiate further structure. Such behavior may do little to further clarify path-goal relationships and may be viewed, as noted earlier, as excessive directive behavior which derives from the leader's need to exercise power and control. An effective leader in a structured situation, it is theorized, should engage in considerate

or supportive behavior with subordinates. Such behavior should function as an extrinsic reward for the subordinate helping him/her relieve boredom or fatigue with the routinized task.

The most comprehensive review of empirical work done to test Path-Goal Theory was completed by Indvik (1986). He performed a meta-analysis of 48 studies and concluded the research base yielded very promising results. A brief summary of Indvik's findings on Path-Goal research follows.

- (1) Path-Goal Theory predicted that directive leader behavior positively influenced the subordinate's affective level to the degree that the lack of structure in the work task had negatively influenced the subordinate's affective level. This hypothesis was supported with respect to the intrinsic and overall satisfaction of subordinates and with satisfaction with the leader.
- (2) A related Path-Goal hypothesis predicted that directive leader behavior improved performance regardless of the level of formal structure in the work setting. Research showed that, as predicted, performance was enhanced by directive leader behavior when task structure was low; the effect of directive behavior was minimal when task structure was high.
- (3) Path-Goal theorists hypothesized for considerate leader behavior that leader support enhanced subordinate motivation and behavior to the degree that the goals were clarified and structured. This hypothesis was

supported for intrinsic, extrinsic and overall subordinate satisfaction, and also for subordinate performance.

- (4) Another hypothesis suggested that considerate or participative leader behavior would also be effective under conditions where the subordinates' tasks were unstructured and when subordinates had a personal preference for establishing their own internal structure. Indvik (1986) could only find this hypothesis being tested with the criterion variable of overall satisfaction. Using that variable as a measure, the studies showed unstructured tasks negatively affected the relationship between participative leader behavior and satisfaction.
- (5) Researchers also hypothesized that environmental or situational variables such as organizational complexity or size would affect the relationship between leader behavior and subordinate satisfaction. Miles and Petty (1971) investigated the relationship between organizational size and the degree of bureaucratization and concluded a strong positive relationship existed, i.e., that formalization, routinization, and standardization were higher in large organizations. From this conclusion, it was hypothesized that subordinates of large organizations would view leader initiating structure as redundant; therefore, leaders who engaged in a high degree of initiating structure behavior would have less satisfied subordinates. As predicted, the research revealed that the relationship between leader behavior and satisfaction was influenced by organizational size.

As with most contingency-based theories of leadership, Path-Goal Theory is rich with opportunities for refinement and extension (Bass, 1981). Both House and Baetz (1979) and Bass (1981) recommended that leader and subordinate personality variables each be incorporated more completely into research designs in leadership studies. Graen and Ginzburgh (1977) suggested that subordinates' role orientation (i.e., reasons for doing a job) might also influence subordinates' views of selected leader behaviors. Kerr and Jermier (1978), in their "substitutes-for-leadership" research, also suggested the variables that he identified as substitutes might influence relationships between leader behavior and subordinate motivation, satisfaction, and performance. Clearly, a better understanding of how both personality variables and environmental factors operate in relation to leadership is necessary to fully comprehend the concept. The contingency approach has, however, significantly focused the study by bringing individual or person-based variables back into consideration. The research of House and many others has also contributed by expanding the study of person-based variables beyond the leader to the consideration of personality characteristics of subordinates and how a complex interweaving of leader behaviors, perceptions, and beliefs; subordinates' beliefs and perceptions; and environmental factors occurs in any leadership situation.

### The Operant Conditioning Approach to Leadership

Having roots in Skinnerean learning theory, the operant conditioning perspective on leadership examines the effect that rewards and punishments can have in reinforcing particular behavior patterns in subordinates. It is another promising recent conceptualization of leadership which has developed following the clarification of the contingency concept of leadership. Leadership is defined in terms of the process by which a leader motivates and "conditions" the behavior of subordinates via controlling the consequences associated with various organizational behaviors. These studies follow the premise that effective leadership is primarily the management and administration of reward contingencies for subordinates so as to "condition" the subordinates to engage in the organizational behavior which will earn the desired consequences (Mawhinney and Ford, 1977; Sims, 1977). The empirical studies on this leadership approach have consistently shown significant results for appropriate management of positive rewards. When earning positive rewards was contingent on high levels of performance, high overall levels of performance and higher levels of satisfaction were always found (House and Baetz, 1979; Jago, 1982). The evidence regarding punitive behavior by the leader in relation to poor performing subordinates, however, has been inconclusive (Jago, 1982; Bass, 1981).

### Perceptual and Cognitive Theories of Leadership

The most recent trend in leadership study in the area of contingency-based studies has been the sizable number of researchers focusing on understanding the relationship individual cognitive processes and beliefs of both the leader and the subordinates play in effective leadership. The centrality of this concern in contemporary leadership research is reflected by the collection of papers on these topics in Sims and Gioia's (1986) book, *The Thinking Organization*. The interest in understanding how cognitive and perceptual processes function in the organization has helped develop the Attribution Theory of leadership, the Cognitive Resource Theory of leadership, and Transformational Leadership Theory.

Attribution Theory of leadership. A number of researchers have applied the principles of Weiner's (1985) attribution theory to problems in the leadership area. Essentially, the attribution theory of leadership was first stated by Calder (1977). He hypothesized that if one wanted to understand a leader's behavior, one must begin by going inside the leader's mind to find out what s/he was thinking about the leadership situation in which s/he had to operate. Calder also maintained that whether a leader was viewed as acting like an effective leader depended on the subordinate's own theories about leadership. He argued that subordinates observe the behavior of their leader and infer the causes of the leader's behaviors to various situational and personal factors. If these causes match the subordinate-observer's assumption about

what an effective leader would do, then leadership is viewed as being successful by the observer and accepted. In testing Calder's theory, for example, Mitchell et al. (1981) found that a leader's judgment of subordinates' competence depended on the consequences of the subordinates' actions. This conclusion was valid even when the behavior causing undesirable outcomes was identical to the behavior which did not cause undesirable outcomes for the organization. For example, Mitchell et al. (1981) found lower performance ratings were assigned by supervisors to a nurse subordinate whose patient fell out of bed and sustained an injury as a result of the nurse's failure to raise a bed rail than to a subordinate whose behavior was identical but whose patient did not receive an injury when s/he fell out of bed.

Various studies by Lord have also established that cognitive labeling or attitudes strongly affect subordinates' perceptions concerning leader effectiveness. Foti et al. (1982) found marked changes over time and across candidates in the percentage of respondents who believed that strong leadership characteristics were possessed by the individual whom they rated. The researchers hypothesized that as an individual's perceptions of leadership shift, so would the perceptions of other characteristics perceived in the individual's leader. Consistent with this expectation, correlational results clearly established a greater change for other characteristics when perceptions of leadership shifts were made for the same person (for example, President Carter at different times in his term), or when comparisons were

made of leadership ratings of different politicians (President Carter and Senator Kennedy). Phillips and Lord (1981) also showed an observer's focus affects the attributions the observer will make concerning a leader. The investigators had participants view videotapes of the same discussion group with the TV camera focused either on the leader or on others in the group. The results showed that the rating of the leader's performance strongly depended on whether or not the camera was directly focused on the leader. In summary, concerning attribution research, House and Baetz (1979) noted, "If the goals of the observed person are compatible with those of the observer, there is a stronger tendency for the attribution of leadership" (p. 403).

Cognitive Resource Theory of leadership. Fred Fiedler and his associates have continued investigating how individual leaders' personal characteristics and individual perceptions impact leadership since Fiedler made his initial suggestion about how a leader's orientation could influence leadership in 1967. However, in the last 15 years, Fiedler and his associates have investigated specifically the role that a leader's intellectual ability and experience in the leadership role plays in determining group performance (Fiedler and Garcia, 1987). Fiedler called the theory which was developed out of this research Cognitive Resource Theory (CRT). CRT specifically focused on understanding how a leader's intellectual abilities and experience impacted his/her effectiveness. Bass (1981), in his major review of leadership literature,

noted that both leader intelligence and experience correlated very poorly (.20 - .30) with leader performance. Fiedler (1970) noted that leadership research had established no consistent evidence that leader experience correlated to leader performance in any significant way despite a general belief that there is a relationship between experience and effectiveness. In his CRT research, Fiedler hypothesized that under stressful conditions, intelligence would not contribute much to leadership effectiveness since under stress a leader would fall back on previously learned behavior which s/he knew very well. Fiedler and Garcia (1987) reported that in high stress situations, leaders did tend to rely on experience rather than intelligence. Conversely, they found that in low stress situations, leader intelligence rather than experience was a significant factor. In low stress leadership situations, it was found that leaders used intelligence in a proactive, problem-solving fashion. Therefore, in those situations, leaders who possessed more intelligence and ability did function more effectively. Fiedler and Garcia (1987) also reported that nondirective leaders who were "relatively intelligent" performed considerably less effectively than did directive leaders with greater intelligence, especially with nonsupportive subordinates. The research in CRT has led to the conclusion, according to Fiedler and House (1988), that intelligent leaders should be directive and tell subordinates what to do; the "relatively less intelligent" leader should work more with participative approaches and listen closely to others. Fiedler and Garcia (1987) stressed the major

contribution of cognitive resource theory to leadership study is its increased delineation of conditions in which a leader's cognitive abilities are more effectively used.

Charismatic and Transformational Theories of leadership. A recent manifestation in leadership study during the last decade has been an increased focus on charismatic or transformational leadership in contrast to managerial or transactional leadership. This rebirth of interest in investigating leadership attributes associated with charismatic leadership theory has developed as a result of Fiedler's reintroduction of individual characteristics of the leader as important factors to consider if a complete conceptualization of leadership is to be developed. Charismatic and transformational leadership study also focuses on perceptions of the subordinate to understand leadership in contrast to Fiedler's CRT research which focused on characteristics of the individual leader. Essentially, researchers in charismatic and transformational leadership theories have attempted to understand how the leader affects the subordinate on the following issues: self-esteem, trust, confidence in the leader, motivation to perform, and willingness to perform, as Bass (1985) termed it, "beyond expectations." Charismatic or transformational leaders are defined as leaders who challenge their subordinates and provide a personal example by behaving in a manner that reinforces and models the vision and the mission of the organization or the group (Bennis and Nanus, 1985; Burns, 1978; Bass, 1985).

Historically, the concept of charismatic leadership roots back to the feudal tradition and fealty to a knight or liege lord. Most scholars working with transformational leadership issues, however, begin their review of literature of the concept with Max Weber's (1947) conception of charisma. The literal translation of charisma, as Bass (1981) noted, is "endowment with divine grace" (p. 452). Hence, transformational leadership study, in some ways, is trying again to capture the "unique something" that trait approach leadership researchers sought in the early stages of leadership study. This rebirth of interest in charismatic leadership developed in the late 1970s. House explicitly advanced a theory of charismatic leadership in formal complex organizations in 1977. House theorized that subordinate trust in the accuracy of the leader's beliefs, similarity of the subordinate's beliefs to those of the leader, and his/her identification with and emulation of the leader resulted in the subordinate having a heightened sense of belonging, which helped fuel increased effort on the subordinate's part to contribute to or accomplish the mission of the organization or group.

Burns (1978), in his landmark study of political leadership, first labeled the ideas discussed by House in 1977 as "transformational leadership." In tracing the leadership approaches of effective political leaders, Burns noted that such leaders had the power to "transform" their followers in such a way that the follower frequently was willing to suspend his/her commitment to individual goals in order to work toward a common shared goal of society or

the group. Burns contrasted the idea of transformational leadership with the idea of transactional leadership. A transactional leader, as defined by Burns (1978), was a rational bargainer who induced support for organizational or group agendas by making an exchange/bargain with either an individual follower or with a smaller group of followers for some good desired by the follower(s). Essentially, the major task of the transactional leader is setting up these bargains and then monitoring that the bargain is carried out before the desired good is awarded to the follower(s). Burns noted such deal-making was effective only as long as it was mutually beneficial to both parties. In contrast, transformational leadership, Burns argued, appeals to a higher, more general and more comprehensive value system. The leader expresses and tries to help the subordinate fulfill his/her most fundamental and enduring needs: equality, self-control, self-discipline, knowledge, influence, etc. By aiding the follower in gaining growth in these areas, the leader builds a unique relationship with the follower, which helps fuel the transformation process. According to Burns (1978), transformational leadership occurs "when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality" (p. 20).

Some empirical studies have been performed to test House and Burn's theories. Smith (1988) reported, for example, that reputedly charismatic leaders have significantly different effects on subordinates than successful but

non-charismatic leaders. Subordinates of charismatic leaders (1) were more self-assured, (2) saw more meaning in their work, (3) reported more support from their leaders, (4) saw their leaders as more dynamic, (5) reported working longer hours, and (6) had higher performance ratings by supervisors than subordinates of non-charismatic but effective leaders. Howell (1988) compared the effects of charismatic leader behavior on subordinates with the effects of directive and considerate behavior under experimentally induced high or low productivity conditions. The results showed charismatic leader behavior had a more positive influence on the performance and satisfaction of subordinates than did either directive or considerate leader behaviors. Only charismatic leader behaviors completely overrode low productivity conditions. Yukl and Van Fleet (1982) found that so-called "inspirational" leadership was significantly related both to leader effectiveness and subordinate motivation in evaluating military samples under combat, noncombat, and simulated combat conditions.

Bass and his associates have conducted a broad research agenda to test hypotheses derived from the transformational leadership theory base. Bass (1985) found managers who were seen by their subordinates as transformational were characterized by the following three behavioral dimensions: (1) worked to develop faith, respect and trust in their subordinates; (2) gave subordinates intellectual stimulation and challenge; and (3) provided individualized consideration to subordinates. From his factor analysis

identifying behavioral dimensions of transformational leaders, Bass developed the Multifactor Leadership Questionnaire. This questionnaire was used by Bass and his associates to conduct a variety of studies in transformational leadership. A summary of their findings follows.

- (1) Managers who are rated by subordinates as high on the three transformational dimensions identified by Bass were compared to random samples of managers who scored low on the three dimensions according to their subordinates. The leaders who rated high on the dimensions were found to receive higher ratings from their superiors in terms of performance, promotability, and ability to effectively lead (Bass, 1985; Hater and Bass, 1986).
- (2) Transformational leaders have higher performing teams in management simulated tasks (Bass, 1985).
- (3) Transformational leaders' subordinates reported greater satisfaction with work and a greater willingness to do more or to make "extra" work effort (Hater and Bass, 1986; Bass, 1985; Pereira, 1987).
- (4) The subordinates of transformational leaders tended to demonstrate transformation leader behaviors in their own individual work levels and groups (Bass, 1985).
- (5) Pereira (1987) focused his study concerning transformational leadership in Indian work settings, so transformational effects have been supported cross-culturally.

In conclusion, the empirical research in charismatic and transformational leadership has tended to confirm the importance of charismatic leader behaviors in motivating subordinates and achieving strong commitment from subordinates. In addition, Bass (1985) noted that correlations between leader behavior and subordinate satisfaction and performance were consistently higher compared with prior field study findings concerning that relationship.

#### The Study of Leadership in the Field of Education

Immegart (1988) noted that despite the many solid findings scholars of leadership have made, the result of empirical-focused leadership studies in the area of education "has not been as heartening . . . [in] the efforts by those in the field of education and others studying that field present several dilemmas" (p. 267).

One major dilemma in the study of leadership in educational settings, according to Immegart (1988), has been the paucity of studies with an educational focus, especially over the last 15 years. While Bass (1981) noted that educational settings, especially because of the increased criticism schools were receiving concerning organizational effectiveness, should be a promising area for leadership research in the future, the actual number of studies performed during the 1980s has, according to Immegart, decreased. This observation by Immegart was supported by the lack of inclusion of the topic of leadership in the 1982 edition of the *Encyclopedia of Educational*

*Research.* Immegart (1988) also noted that as an editor of *Educational Administration Quarterly* for the six-year period from 1980-1985, he received few articles directed toward the topic of leadership in educational settings. He also commented, "Such efforts [which he did receive] were typically of poor quality and were repetitive, not ground breaking, in nature" (p. 267).

In reviewing material for this survey of the findings in leadership research, the researcher found that studies of educational leaders and educational-focused investigations primarily tended to corroborate and replicate inquiry concerning leadership already established in other fields. Stogdill (1974) and Immegart (1988), in their leadership reviews of educational-based studies, noted only a few minor differences between educational findings and findings in other fields. Bass (1981) made only passing reference to any unique contributions to leadership study from the field of education.

In reviewing educational studies focused on leadership, it is also readily apparent that studies in education tend to replicate the conceptual framework of studies conceived in other fields and to lag behind the cutting edge of empirical, conceptual, and methodological advances made in other fields where leadership study is pursued. For example, few investigations using contingency-based conceptualizations of leadership have been completed in education to date. With the increased emphasis on the importance of effective leadership in effective school research (Rosenholtz, 1985; Andrews et al., 1986; Cuban, 1988b), it is perplexing that the issue of how leaders

actually perform in educational settings has not attracted more research investigation. Stogdill (1974), however, offered a somewhat unflattering explanation for this conundrum. In reflecting on interviews he had conducted with educational administrators, he wrote, ". . . a passive commitment exists throughout the profession to a laissez faire style of leadership" (p. 98). This situation, he concluded, has resulted in a very permissive style of leadership, since any structuring is viewed as autocratic and a suppression of sensitivity in the group. With such attitudes, leadership in educational settings has tended to be flaccid and of little interest to serious scholars of leadership research, he concluded. Burlingame (1973), in a review of leadership, was even more blunt in evaluating leadership problems in the schools: ". . . leaders in education have been lesser [persons] attempting to maintain systems. . . . They are not on the frontier, reconnoitering virgin territory" (p. 64).

### Conclusion

In conclusion, leadership is obviously a critical concept in understanding how effective organizations work. From this review of the major trends in leadership study, it is also obvious that a comprehensive definition of effective organizational leadership still eludes researchers. The review also establishes that current leadership research is actively investigating how cognitive and perceptual processes of both leaders and subordinates -- processes like

self-efficacy -- influence leadership and group performance in order to gain a better understanding of how these processes influence subordinate motivation, commitment, and performance. Understanding how such processes work in relation to leader behavior is important, for researchers now fully recognize the truth in Smircich and Morgan's (1982) observation: "While individuals may look to a leader to frame and concretize their reality, they may also react against, reject, or change the reality thus defined" (p. 259). Burns (1978), in his initial conceptualization of the transformational leadership concept, repeatedly stressed the fact that leaders' and followers' fates are inexorably linked in the act of leadership:

Leadership, unlike naked power-wielding, is . . . inseparable from the followers' needs and goals. The essence of the leader-follower relationship is the interaction of persons with different levels of motivations and power potential, including skill, in pursuit of a common or at least a joint purpose. (p. 19)

These positions concerning leader-follower interactions clearly support the objective of this study -- to determine whether the individual levels of self-efficacy of teachers influence those same teachers' beliefs about their principals' leader behaviors and unilateral decision making actions. The goal of the perceptual and cognitive theories of leadership -- attribution, CRT, and transformational leadership -- has been to explain with greater clarity the uneasy marriage of modern leadership between the two antagonistic visions of leaders as developed by the bureaucratic and feudal traditions. Fiedler and Garcia (1987) speak optimistically of how cognitive resource theory is

helping to integrate theories based on personality traits, attributes, and cognitive perceptions with theories based on situational and organizational factors. This integration of theories is an important goal. This study is also aimed at making a contribution to that integration so that a coherent conceptualization of leadership that adequately captures the complex interweavings of variables involved in effective leadership can be defined. Such a conceptualization would significantly aid the current attempts in second-wave reform to help schools become organizations which foster adult growth and development in teachers.

## CHAPTER 3

### PROCEDURES

#### Introduction

The problem of this study was to determine if a teacher's sense of professional and organizational efficacy affected the following two variables:

- (1) the teacher's perception of his/her principal's leadership behaviors and
- (2) the teacher's acceptance of unilateral decision making by that principal.

The independent variables of interest were as follows: organizational efficacy, professional efficacy, gender, years of experience, and size of school district.

The dependent variables of interest were leadership behaviors and professional zone of acceptance. The procedures used to address this problem are discussed in the following sections of this chapter:

- (1) population description and sampling procedure,
- (2) definition of categories,
- (3) methods of collecting data,
- (4) methods of organizing data,
- (5) statistical hypotheses, and
- (6) analysis of data.

Population Description and  
Sampling Procedures

The target population of this study was Montana public school teachers who met the following criteria:

- (1) taught in a public school setting,
- (2) worked in districts which employed a superintendent of schools to administer the school district,
- (3) worked in districts with a student enrollment of 1,000 students or higher,
- (4) worked in settings in which an immediate supervisor was on site for a portion of most working days,
- (5) belonged to the Montana Education Association, and
- (6) were actively employed during the school term of 1988-89.

The decisions to restrict the study to a teacher population which had a district superintendent, a district student enrollment of 1,000 students or higher, an on-site principal as a supervisor, and to teachers who were members of the Montana Education Association (MEA) were made in an attempt to address issues relating to the variable of organizational efficacy. Since this variable focuses on the organizational role of the teacher beyond the classroom, it was important to the study that teachers selected as respondents in the study be involved in a workplace where supervisors were readily available to work with the teacher on both an informal and formal basis

if the teacher should choose to do so. Proximity of a supervisor to the teacher was an especially critical factor in this study in light of the influence-across-organizational-level nature of the organizational efficacy variable. Establishing the requirement that the district employ a superintendent of schools was done in an attempt to establish that the district had layered levels of bureaucratic hierarchy. Likewise, it was also important that all teachers in the study have access to the primary recognized channel within the teaching profession for exercising influence within both the teaching profession and within the larger school organization beyond the individual teacher's classroom -- the teacher associations. Hence, the requirement was made that all subjects of the study be members of the Montana Education Association.

Limiting the population of the sample with the restriction that teacher subjects be employed in school districts with student enrollment at 1,000 or more was done as another method of attempting to ensure that teachers investigated in this study were working in settings of some organizational complexity. Since so many school districts in Montana are rural in nature, thus small and fairly simplistic in organizational structure, the researcher made the decision to eliminate school districts with student enrollments of 999 or less in an attempt to not contaminate the organizational efficacy variable with data from teachers who would not be working in an adequately complex organizational setting. Since considerable variability in school district size in

Montana still exists between 1,000 student enrollment districts and districts with larger enrollments, the researcher elected to divide the remaining Montana districts into two groups -- Group L organizations and Group M organizations. Group L organizations are school districts with a student enrollment of 3,000 or higher. Group M organizations are districts with a student enrollment between 1,000 and 2,999.

The decision to restrict the population to teachers working in public schools was made for the following reason. The work environments of public school teachers tend to be more similarly structured than are the work environments of teachers employed in private school settings. Historically, a generic public school organizational model has evolved so that teaching in an American public school setting, even when that setting serves widely different populations or geographic settings, still retains basic similarities organizationally (Lortie, 1975; Barr et al., 1983). Efficacy is a measure, which its primary investigator Albert Bandura (1977b, 1986) suggested, is of a highly complex nature and is very situationally effected. Since a person's sense of efficacy involves both his/her cognitive and affective appraisal of his/her capabilities in a specific situation, it is important to this study that the subjects involved be experiencing work situations which have common organizational structures and goals, i.e., the public school setting.

All teachers used in the sample held certification in the teaching area in which they were assigned. This restriction was made to control contamination

of the professional efficacy variable. For this variable, it was important that the teachers studied be viewed as having equal opportunity to be efficacious in the performance area of classroom teaching. By restricting the participants of this study to those teachers certified to teach in the area in which they were actually teaching, the respondents of the study will each have equal opportunity at being high on professional efficacy since they will all be teaching in assignments in which the certification structure has judged their training and preparation to be adequate for successful job performance.

From this identified population, a stratified random sample of 400 respondents was sought. This sample size was larger than the number a statistical determination of the population using Tuckman's formula (Tuckman, 1988, p. 243) indicates as being an adequate sample size for this study. The researcher, however, elected to seek this larger sample size for the following reasons. Borg and Gall (1983) state, "The general rule [in sampling] is to use the largest sample size possible" (p. 251); and they later comment that the larger the sample size the less likely is the researcher to make a Type II error: "to obtain negative results or to fail to reject a null hypothesis when it actually is false" (p. 257). Increased sample size, according to Slavin (1984), also reduces the chance of a Type I error: "The best way to reduce the possibility of false negative error without increasing the chance of false positive error in . . . . correlational research is to increase the number of subjects involved

in the study" (p. 102). Sudman (1976), a recognized expert in survey sampling, offered the following general principle in establishing size of sample for survey research. "A General rule is that the sample should be large enough so that there are 100 or more units in each category of major breakdowns and minimum of 20 to 50 units in the minor breakdowns" (p. 30).

Students of research design suggest larger sample sizes are necessary under the following conditions: (1) when many uncontrolled variables are present; (2) when small effect sizes are anticipated; (3) when groups must be broken into subgroups; (4) when high attrition of sample subjects is expected; (5) when high level of statistical significance, statistical power, or both are required; (6) when the population is highly heterogeneous on the variables being studied; and (7) when reliable measures of the dependent variable are not available (Borg and Gall, 1983; Sudman, 1976; Slavin, 1984). Since this study was an exploratory one in its combined investigation of organizational and professional efficacy, several of the above conditions were present and a larger sample size was warranted. Consequently, the decision was made to seek a large sample size.

A stratified random sample was drawn from the defined population using the random table of numbers on a computer. The sample was stratified on the variable of gender to make certain males and females were represented in the sample in proportion to their numbers in the target population. The decision to use a proportional stratified random sample was made since gender is a variable of interest in this study.

Finally, the teachers in the sample were stratified according to the size of the organization in which each teacher worked. The number of teachers selected for the sample from Group L and Group M school organizations was done in relation to how the teachers were configured in the actual teaching population of Montana for the year 1988-89.

Response rate in survey research is a critical concern since a poor response rate can drastically reduce the survey's credibility. As Dillman (1978) noted:

If a significant number of contacts end in refusals, it is important to know whether those who did not respond differ greatly from those who responded. Relatively few refusals provide the theoretical potential for introducing considerable error into estimates of the sample characteristics. (p. 52)

A number of survey research scholars (Kish, 1965; Fink and Kosecoff, 1985; Sudman, 1976) identify an 80 percent response rate as acceptable, although all stress that the researcher's goal should be to try to obtain the highest possible return rate. With the goal of at least an 80 percent response rate in mind, the decision was made to conduct a four-tier mailing approach as developed by Dillman (1978): (1) mailing of initial cover letter and instrument; (2) exactly one week after the initial mailout, a postcard follow-up reminder; (3) three weeks after the first mailout, a second letter and instrument were sent to everyone who had not responded; and (4) seven weeks after the first mailout, a third letter complete with another instrument was sent to everyone who still had not responded. The use of multiple-tiered

mailings in order to improve response rates in survey research is a widely used technique. Linsky (1975) and Worthen (1973) report approximately a 10 percent higher response rate if pre-contacting of respondents is performed. In relation to follow-up, Linsky also noted: "In a careful study based on a large sample, 58 percent of those who received a postcard follow-up eventually responded, compared to only 37 percent of a matched sample who received only the original communication and questionnaire" (p. 85).

Despite the care taken to closely replicate established best-practice guidelines in survey research in order to obtain a high response rate, the researcher recognized that a group of nonrespondents would be present in the study. Realistically, a group of nonrespondents is present in every study despite the best efforts aimed at achieving a high response rate. Because of the existence of this nonrespondent group in every survey, Dillman (1978) and Rosenthal and Rosnow (1975) stressed the importance of establishing the extent of differences between respondents and nonrespondents if possible. With the objective of addressing this issue, the researcher compared respondents and nonrespondents on the following parameters in order to establish that no major differences which could bias the study existed between nonrespondents and respondents: gender, size of organization worked in, and level of certification (elementary or secondary). The results of this comparison are reported in Chapter 4, Figure 3.

Identification of the specific subjects for the study plus their addresses was done via the membership lists of the Montana Education Association.

The researcher contacted the President of the Montana Education Association and obtained permission to use the MEA membership lists for the purpose of this study. The membership lists used were for the 1988-89 school year. The MEA database identified teachers by the school levels at which they teach, furnished information concerning their current employment status ("Are they actively teaching?"), the site at which they worked, and the teacher's home address.

The decision was made to use home addresses and the teacher association as a contact source for the subjects of this study because of the sensitive nature of the study. The study focused on work environment issues and, specifically, on the individual teacher's immediate superordinate's leadership and decision making behaviors. The researcher believed because of this focus, which required subordinates to make judgments about an immediate superordinate's work behaviors, it was important to the integrity of the study to remove any threat of intimidation which a teacher might perceive as existing if information about and contacts with the subjects were made through the administrative structure of the school in which the teacher worked.

A second important consideration which influenced the decision to mail to the participant's home address grew out of the ethical need to protect the participant's right of privacy and confidentiality. As Sudman and Bradburn (1982) noted:

Survey research is intrusive in the sense that the privacy of respondents is violated when they are selected to participate in a survey and then are asked a series of questions. You (the researcher) must therefore be cognizant of respondents' rights of privacy. (p. 7)

In order to ensure a participant's privacy and confidentiality, a cover letter explicitly assuring confidentiality of material was enclosed with the instrument. In addition, the cover letter contained a cogent explanation of the nature and purpose of the research so that potential respondents had sufficient information to judge whether they believed unpleasant consequences would follow if they elected to participate in this study. Respondents' concern in regard to their privacy was shown by some respondents in that they explicitly wrote comments on their returned instruments re-emphasizing the importance of their identities never being linked directly to the responses they had made on the instrument.

#### Definition of Categories

This study considered the categories of: (1) self-efficacy; (2) leadership behaviors, and (3) professional zone of acceptance. Subcategories of interest were: (1) gender, (2) size of school district in which the teacher was employed, and (3) years of teaching experience. The category of self-efficacy was considered from two perspectives -- professional efficacy and organizational efficacy. The category of leadership behaviors investigated encompassed the 12 subscales of the LBDQ-Form XII: (1) consideration, (2) initiation of structure, (3) tolerance of freedom, (4) persuasiveness,

(5) tolerance of freedom, (6) role retention, (7) production emphasis, (8) predictive accuracy, (9) representation, (10) reconciliation, (11) integration, and (12) influence with superordinates.

### Self-Efficacy

The concept of self-efficacy -- an individual's belief in his/her capability to perform specific actions and obtain desired outcomes through his/her personal mastery of requisite cognitive, social, linguistic, and/or physical skills -- is an important facet of any self-management system of information (Bandura, 1986). Ashton and Webb (1986) concluded in their comprehensive investigation of teachers' sense of self-efficacy that "efficacy offers educators and researchers a powerful organizing construct for directing future research and educational improvement" (p. 3). Efficacy beliefs are connected to specific situations and tasks. Because of this specificity, efficacy beliefs are distinguished from the more general concept of locus of control (Lefcourt, 1982; Rotter, 1966). Basically, this study's concept of self-efficacy was defined from Bandura's theory of self-efficacy (1977b; 1986).

Since Bandura's concept of efficacy theorizes that an individual's sense of self-efficacy is greatly influenced by specific situations, it is important in order to fully understand a teacher's sense of self-efficacy in his/her workplace, to conceptualize that sense of self-efficacy so that it addresses all the major arenas in which the teacher must operate in order to effectively fulfill his/her total work role in the organization. To fully understand a teacher's

sense of efficacy, it is, therefore, important to investigate both arenas in which a teacher operates as a professional in his/her work organization: (1) inside the classroom performing the core professional act of teaching -- the delivery of instruction to students, and (2) beyond the classroom in the larger school organization performing the various other tasks of a professional teacher's role in the school system. To date, however, most research in self-efficacy in relation to teachers has focused almost exclusively on the classroom role of the teacher (what in this study is referred to as "professional efficacy" and what in most education-focused efficacy research studies is labeled "teacher's sense of efficacy") and has almost totally ignored the teacher's ability to operate and exercise influence beyond the classroom as an important component in teacher's overall sense of efficacy (Ashton and Webb, 1986; Gibson and Dembo, 1984; Guskey, 1987b). This study addressed both components of a professional teacher's sense of efficacy in his/her workplace via the two categories of professional efficacy and organizational efficacy.

### Leadership Behaviors

The leadership behavior scales used in this study were developed by Stogdill (1963) in his formulation of the Leadership Behavior Description Questionnaire-Form XII. The LBDQ-Form XII examines leader behaviors from the perspective of a subordinate. It can be used to describe behaviors of a leader in any type of group or organization providing the followers have had an opportunity to observe the leader in action (Bass, 1981). The importance

of understanding follower views in relationship to understanding effective leadership is well-documented in leadership literature (Bass, 1981; Burns, 1978; Bennis and Nanus, 1985).

The original form of the LBDQ grew out of the work initiated by Hemphill (1950) at the University of Maryland. The scales of initiation and consideration used in the original LBDQ were further developed by Hemphill and Coons (1957) during the Ohio Leadership Studies at Ohio State University. Stogdill (1959) then proposed 10 additional subscales of behavior involved in effective leadership which were conceptually independent of Hemphill and Coon's original two subscales of initiation of structure and consideration. These 10 subscales combined with the original two subscales comprise the 12 subscales of leader behaviors which the LBDQ-Form XII measures.

The leader behaviors which the 12 subscales of the LBDQ-Form XII addresses are measured by either five or ten separate items. The follower (in this study, the teacher) responds to each item on a one-to-five point Likert scale. A brief definition of each leader behavior subscale is given below (Stogdill, 1963).

- (1) *Representation* explores how the leader speaks and acts as the representative of the group.
- (2) *Demand Reconciliation* identifies how the leader reconciles conflicting demands and reduces disorder in the system.
- (3) *Tolerance of Uncertainty* considers how the leader is able to tolerate uncertainty and postponement without anxiety or upset.

- (4) *Persuasiveness* explores how the leader uses persuasion and argument effectively, exhibits strong convictions.
- (5) *Initiation of Structure* traces how the leader clearly defines his/her own role and lets followers know what is expected.
- (6) *Tolerance of Freedom* considers how the leader gives followers' scope for initiative, decision, and action.
- (7) *Role Assumption* identifies the degree to which the leader actively exercises the leadership role rather than surrendering leadership to others.
- (8) *Consideration* gives the follower's views on how the leader regards the comfort, well-being, status, and contributions of the followers in the organization.
- (9) *Production Emphasis* explores how the leader applies pressure for productive output from followers.
- (10) *Predictive Accuracy* considers how the leader exhibits foresight and ability to predict outcomes accurately.
- (11) *Integration* identifies how the leader maintains a closely knit organization and resolves intermember conflicts in the system.
- (12) *Superior Orientation* considers how the leader maintains cordial relations with superiors, has influence with them, and is striving for higher status in the organization or the profession.

### Professional Zone of Acceptance

The last category of the study, the professional zone of acceptance, is based on the theoretical work of Chester Barnard (1968) involving the zone of indifference. The zone of indifference explores the willingness of a subordinate to hold in abeyance his/her own judgment concerning a decision and comply to a unilateral decision made by a superior. In other words, the subordinate is indifferent to the fact that the superior, by making a decision without consulting the subordinate, has taken the control for that decision away from the subordinate. In all superior-subordinate relationships, Barnard hypothesized, a range of acceptability of indifference to directives issued unilaterally by superiors exists. That range is called the professional zone of acceptance by Kunz and Hoy (1976), and this study investigates if the subordinate's level of efficacy influenced the range of his/her professional zone of acceptance.

### Years of Experience

The subcategory of years of experience was defined as follows: (1) 5 years or less, (2) 6 years to 10 years, (3) 11 years to 20 years, (4) 21 years to 25 years, and (5) 26 years or more. This categorization took into account critical breakpoints in teachers' career lives as identified by Lortie (1975) and Glickman (1990). Researchers, for example, have found that the fifth year in teaching tends to be a critical year for people leaving the profession. Glickman (1990) maintains 8-to-10-year veteran teachers are less focused on

working to improve their instructional skills as a means to gain rewards in teaching.

#### Methods of Collecting Data

The data used in this study were collected via a survey instrument mailed to selected participants. That instrument addressed the following areas: (1) demographic data items which requested information about gender, years of teaching experience, area/level of teaching in which the respondent was currently working, certification held by the teacher, site and level in which the teacher was currently employed, whether a principal was present on a daily basis in the teacher's school, and number of years the teacher had worked in the current position and with the current principal; (2) the 12 subscales of the LBDQ-Form XII; (3) the four items designed to do the grouping on the self-efficacy variable; and (4) the 30 items of the Professional Zone of Acceptance Inventory.

The actual format of the survey instrument and the procedures used to administer it closely followed Dillman's (1978) guidelines for the Total Design Method. Dillman developed the Total Design Method (TDM) in order to address the traditionally low return rate problem common in mailed survey research. Following the TDM approach, Dillman (1983) managed to obtain "response rates in excess of 80 percent" . . . in surveys of university students, high school home economics teachers, and state employees" (p. 360). Since Dillman's rate of return on surveys using the TDM approach consistently

approached 80 percent or better, the decision was made to use the Total Design Method. Therefore, the following general principles developed by Dillman (1978) were followed in constructing the survey instrument which was mailed to the sample subjects of this study:

- (1) The instrument was designed as a booklet with the dimensions of 6½ by 8½ inches.
- (2) The instrument was typed on 8½ by 11 inch paper and then was photo-reduced to fit into the booklet to provide a less imposing image to the respondent. (See Appendix A for a copy of the instrument used in this study.)
- (3) Resemblance to advertising brochures was strenuously avoided, as recommended by Dillman; thus, the booklets were printed on white paper. Despite Dillman's recommendation that lighter weight paper be used to ensure lower mailing costs, because of paper weights available in Bozeman, the instrument was printed on 20-pound paper.
- (4) No questions were printed on the first or cover page of the instrument; an interest-catching title, a neutral but topic-related illustration, and clear instructions to the respondent were the contents of the first or cover page, as recommended by Dillman.
- (5) Similarly, no questions appeared on the back page of the booklet. Dillman recommended the back cover be used to invite additional comments and to express the researcher's appreciation to the respondent. This procedure was followed.

- (6) In keeping with Dillman's recommendations, the questions in the instrument were ordered so that the most interesting and topic-related questions, as identified in the cover letter, came first; potentially objectionable questions (the leadership behavior scales) came later, and those requesting demographic information came last.
- (7) Dillman also recommended the instrument be designed so respondents do not have to flip back and forth in the instrument to successfully respond; his basic principle is to design the instrument so respondents have ease in response. With this goal in mind, the instrument was set up so scales for response were clearly identified on each page, response scales were set so the respondent had a straight vertical response line, and care was taken to write extremely explicit instructions and to avoid overlapping of an item from one page to another page. Clear transitions were also written into the instrument where the shifts between the various instruments used in the overall study instrument were made.

The actual implementation of the Total Design Method involved the following steps being completed during the mailout process of this study:

- (1) A one-page cover letter was prepared which explained the purpose of the study, its value, and the importance of the subject's response to the overall success of the study. It also promised confidentiality in conjunction with the identification system used to facilitate the follow-up

mailings. This letter was printed on department letterhead. In keeping with Dillman's recommendations, all cover letters were hand signed by the researcher. (See Appendix B for a copy of this cover letter.)

- (2) Each instrument was stamped with an identification number; the presence of this number was explained in all cover letters.
- (3) The individual name and address of each respondent was typed onto each printed letter except in the case of the third follow-up cover letter. A shift in secretarial help for the third follow-up resulted in failure of the replacement secretary to do the personalizing of the cover letter for that mailing.
- (4) Following Dillman's recommendation, the mailout packet, consisting of cover letter, instrument, and addressed business-reply envelope, was placed in a standard business envelope and mailed first class to the respondent.
- (5) Exactly one week after the initial mailout, a postcard follow-up reminder was mailed. Although the postcard follow-up reminder was printed, the researcher hand signed and stamped with a postal stamp each postcard in order to personalize the contact. (See Appendix C for content of postcard mailout.)
- (6) Three weeks after the initial mailout, a second cover letter and questionnaire were sent to every subject who had not responded. (See Appendix D for copy of this letter.)

- (7) Seven weeks after the first mailout, a third cover letter complete with another replacement instrument was sent to every subject who had not responded to date. Dillman recommended this third mail contact be done by certified mail. However, cost of doing such a mailing resulted in the researcher electing to do this mailing by first-class mail, just like the previous two mailings. (See Appendix E for copy of this letter.)

### Measuring the Variables

Level of efficacy was measured by the Rand items developed in two Rand Corporation evaluation studies (Armor et al., 1976; Berman et al., 1977). These two items specifically address the category of professional efficacy as defined in this study. While these items have psychometric limitation in that they result in scores which allow for limited variability, Ashton and Webb (1986) found that "the Rand items measuring teachers' sense of efficacy correlated significantly with the Webb Efficacy Scale (a measure of teachers' beliefs in the efficacy of teaching) . . ." (p. 148). The measures are judged as adequate for grouping respondents (Ashton and Webb, 1986; Armor et al., 1976; Berman et al., 1977). These Rand items require responses to two five-point Likert scale items. Efficacy level is considered high if the resultant combined score of the two items is eight or above.

The organizational efficacy category was measured with an adaptation of the Rand items used to measure professional efficacy. The items were adapted to measure organizational efficacy as it is defined in this study. The adaptation of the original Rand items to reflect the organizational efficacy category required the researcher to establish reliability and validity of these two items. Gronlund (1985) defined validity as "the appropriateness of the interpretations made from test scores and other . . . results, with regard to a particular use . . ." (p. 55). The researcher established content validity by surveying the literature on efficacy and organizational issues for a clear definition of the concept. Fuller et al. (1982) defined the concept of organizational efficacy as it is used in this study. This definition was then incorporated into the wording of the Rand Efficacy items. The researcher then had three individuals with training in school administration evaluate the items. These three individuals, Dr. Donald Robson, Dr. Joanne Erickson, and Dr. LeRoy Casagrande, judged the items as appropriate for their particular use. The organizational efficacy items' reliability was established by the test-retest method. While several methods can be used to establish reliability, Shaw and Wright (1967) suggested:

The test-retest method corresponds most closely to the conceptual notion of reliability and the procedure is simple. The attitude scale is administered to the same group of persons at two different times and the correlation between the two sets of scores is computed. This coefficient, usually a Pearson  $r$ , is the reliability estimate. (p. 16)

The most critical problem in calculating this form of reliability is to determine the correct delay between the two administrations of the measures. Shaw and Wright recommended "intervals ranging from two to six weeks" (p. 17). Popham (1981) also recommended a time interval of two to six weeks. The researcher used practicing teachers in the Montana school districts of Monforton, Gallatin Gateway, Three Forks, and Manhattan to field test the items in order to establish the coefficient of stability for the organizational efficacy measures. The administration of the items was done in early March 1989, and then readministered in late April and early May 1989. Each instrument was pre-coded by the researcher, thereby enabling the teachers to retain their anonymity. A Pearson-R Correlation Coefficient was computed between the administrations of the items. Usable responses totaled 63 and resulted in a test-retest correlation coefficient of .822.

The dependent variable of leadership behaviors was measured by having respondents complete the 12 subscales of Stogdill's LBDQ-Form XII. House and Baetz (1979) clearly pointed out that results on this newer LBDQ-Form XII are more consistent both with current lines of leadership inquiry and with logic. Stogdill (1974), on the basis of his analysis, encouraged the use of the LBDQ-Form XII rather than earlier forms of the instrument. He also suggested that all items of the scale should be employed in research (in contrast to a prevalent use of just the consideration and initiation structure scales). The

reliability of the 12 subscales was determined by Stogdill (1963) via use of a modified Kuder-Richardson formula. The modification involved each item being correlated with the remainder of the items in its subscale rather than with the subscale score which included that item. Stogdill (1963) commented, "This procedure yields a conservative estimate of subscale reliability" (p. 7). Stogdill computed reliability on the subscales with a variety of identified professional groups ranging from clergymen to military officers. Stogdill (1974) noted: "In general, the scales with the highest degrees of interdescriber agreement across groups of describers were demand reconciliation, tolerance of uncertainty, persuasiveness, role assumption, predictive accuracy, and superior orientation" (p. 144). In the original research of the LBDQ completed by Hemphill and Coons, and later refined by Andrew W. Halpin and B.J. Winer before Stogdill did his extension of the LBDQ, populations of school administrators were used to establish reliability (Hoy and Miskel, 1982). Table 2 summarizes Stogdill's reliability of the subscales of the LBDQ-Form XII in regard to corporate presidents.

Concerning the two original subscales of the LBDQ (consideration and initiating structure), Bass (1981) noted, "For consideration and initiation, reliabilities were .93 and .81 for the LBDQ, . . . and .90 and .78 for the LBDQ-Form XII" (p. 360).

Table 2. Representative reliability coefficients for subscales of LBDQ-Form XII.

Subscale	Corp. Presidents
1. Representation	.54
2. Demand Reconciliation	.59
3. Tolerance of Uncertainty	.79
4. Persuasiveness	.69
5. Initiating Structure	.77
6. Role Assumption	.84
7. Tolerance of Freedom	.57
8. Consideration	.85
9. Production Emphasis	.59
10. Predictive Accuracy	.84
11. Integration	--
12. Superior Orientation	.66

The differential validity of several of the subscales of the LBDQ-Form XII was studied by Stogdill in 1969. With the assistance of a playwright, Stogdill had scenarios written for six of the subscales (consideration, initiation of structure, representation, tolerance of freedom, production emphasis, and superior orientation). The items in each subscale were used as a basis for the scenario for that pattern of leader behaviors. Experienced actors performed the scenes for superordinates and subordinates. Each role was played by two different actors, and each actor played two different roles. Films were made of the performances. Observers used the LBDQ-Form XII

to describe the superordinate's behavior. No significant differences were found between the two different actors playing the same role. Since each role represented a respective subscale and since observers used the same items to describe the enactment of the roles and since the scoring remained stable, Stogdill concluded the scales measured what they claimed to measure.

The LBDQ-Form XII consists of 100 items. Respondents circled their selected responses using a Likert scale response form which ranged from A (equal to 5) being "always" to E (equal to 1) being "never." Subscale scores were established by adding numerical responses for items appropriate to that subscale. Since the LBDQ-Form XII establishes a profile of leader behaviors, no cumulative or total score on leadership is possible with this instrument.

The variable of professional zone of acceptance was measured by the Professional Zone of Acceptance Inventory (PZAI) developed by Daniel W. Kunz and Wayne K. Hoy (1976). Kunz and Hoy used a pool of more than 150 items to develop the inventory. Via employing factorial analysis, the final form of the instrument was developed. It consists of 30 items. Respondents, by answering the PZAI's items, analyze areas in which their principal might make unilateral professional decisions. The respondents indicated their degree of compliance to that principal action on a Likert scale response form which gives a range of choices from "always" to "never." An initial coefficient of stability of .91 was established for the PZAI using a population of 54 teachers in graduate courses at Rutgers University and with a lapsed time of one week for the retest. The coefficient alpha for the 380 public school teachers in

Kunz and Hoy's original study was .96. The PZAI results in a total score. The numerical responses on the 30 items of the PZAI were added together to obtain the total score. A numerical values of 1 to 5 was assigned to the "always" to "never" range of the Likert scale. The higher the total score, the narrower the range of acceptance of the teacher to the unilateral decisionmaking of his/her teacher.

### Methods for Organizing Data

The design of this study's hypotheses requires the use of the following statistical methods in analyzing the data collected: (1) chi square test for independence, (2) one-way analysis of variance, and (3) two-way analysis of variance. Consequently, data are organized, depending upon statistical method used, into contingency tables or summary tables for ANOVA. If significant differences were found in hypotheses tested with analysis of variance, the Newman-Kuels post hoc procedure was used and the results of that procedure are reported in a suitable fashion in Chapter 4.

### Statistical Hypotheses

In order to determine whether a relationship exists between a teacher's sense of organizational and professional efficacy and that teacher's perceptions of his/her superordinate's leadership activities, the following series of null hypotheses were tested.

- (1) The level of efficacy of a teacher is independent of that teacher's gender.
- (2) The level of efficacy of a teacher is independent of that teacher's years of teaching experience.
- (3) The level of efficacy of a teacher is independent of the size of organizational setting in which that teacher works.
- (4) No statistically significant difference exists between the independent variable of efficacy levels and the dependent variable of leader behaviors as determined by scores on Subscales 1-12 of the Leadership Behavior Description Questionnaire-Form XII.
- (5) No statistically significant difference exists between the independent variable of efficacy levels and the dependent variable of professional zone of acceptance as measured by the score on the Professional Zone of Acceptance Inventory.
- (6) No statistically significant interaction exists among the two independent variables of levels of efficacy and gender with the dependent variable of leader behaviors as determined by scores on Subscales 1-12 of the Leadership Behavior Description Questionnaire-Form XII.
- (7) No statistically significant interaction exists among the two independent variables of levels of efficacy and gender with the dependent variable of professional zone of acceptance as measured by the score on the Professional Zone of Acceptance Inventory.

- (8) No statistically significant interaction exists among the two independent variables of levels of efficacy and years of teaching experience with the dependent variable of leader behaviors as measured by scores on Subscales 1-12 of the Leadership Behavior Questionnaire-Form XII.
- (9) No statistically significant interaction exists among the two independent variables of levels of efficacy and years of teaching experience with the dependent variable of professional zone of acceptance as measured by the score on the Professional Zone of Acceptance Inventory.
- (10) No statistically significant interaction exists among the two independent variables of levels of efficacy and organizational group of the school with the dependent variable of leader behaviors as measured by scores on Subscales 1-12 of the Leadership Behavior Description Questionnaire-Form XII.
- (11) No statistically significant interaction exists among the two independent variables of levels of efficacy and organizational group of the school with the dependent variable of professional zone of acceptance as measured by the score on the Professional Zone of Acceptance Inventory.

#### Analysis of Data

Given the hypotheses of this study, the following statistical methods were used to analyze the data collected with the study's survey instruments. Hypotheses 1-3 were tested with the chi square test of independence. Hypotheses 4-5 were tested with one-way analysis of variance. Hypotheses

6-11 were tested with two-way analysis of variance. The Newman-Kuels was used as the post hoc procedure. The decision to use the Newman-Kuels was made since Ferguson (1981) recommended it as an acceptable procedure. "The probability of rejecting the null hypothesis when it is true would not exceed .05 level of significance" (p. 310).

The null hypotheses of this study were tested at the .05 level of significance. Kerlinger (1973) noted the .05 level of significance "has persisted with researchers because it is considered . . . neither too high nor too low for most social scientific research" (p. 170). The decision concerning level of significance was determined by analyzing the consequences of making a Type I or Type II error. A Type I error results when a true null hypothesis is falsely rejected. A Type II error occurs when a null hypothesis is falsely retained. In this study, a Type II error might deprive educational policymakers of information which might be of benefit to more precisely shaping policy involving teachers and administrators and the training of both teachers and administrators in regard to their roles and responsibilities, response to change, and workplace commitment. A Type I error might result in time and money being invested in erroneous policy shaped with inaccurate information concerning teachers and their perspectives on administrators. The choice of the .05 level of significance was based on the rationale that the consequences of committing a Type I or a Type II error is equally detrimental to the study.

Precautions Taken for Accuracy

Statistics were calculated by computer using the *Statistical Package for the Social Sciences* (SPSS). Slavin (1984) noted, "Calculating statistics using the computer is faster and more accurate than computing statistics by hand. . . ." (p. 219). Scoring of all instruments was done by hand by the researcher so the researcher had a clear picture of the data as it actually was recorded by the respondent. All reasonable precautions to ensure accuracy were taken by the researcher. The researcher hand checked both the recording of the items from the instruments to the computer coding sheets and then again when the computer printout of the data was obtained.

## CHAPTER 4

### ANALYSIS OF DATA

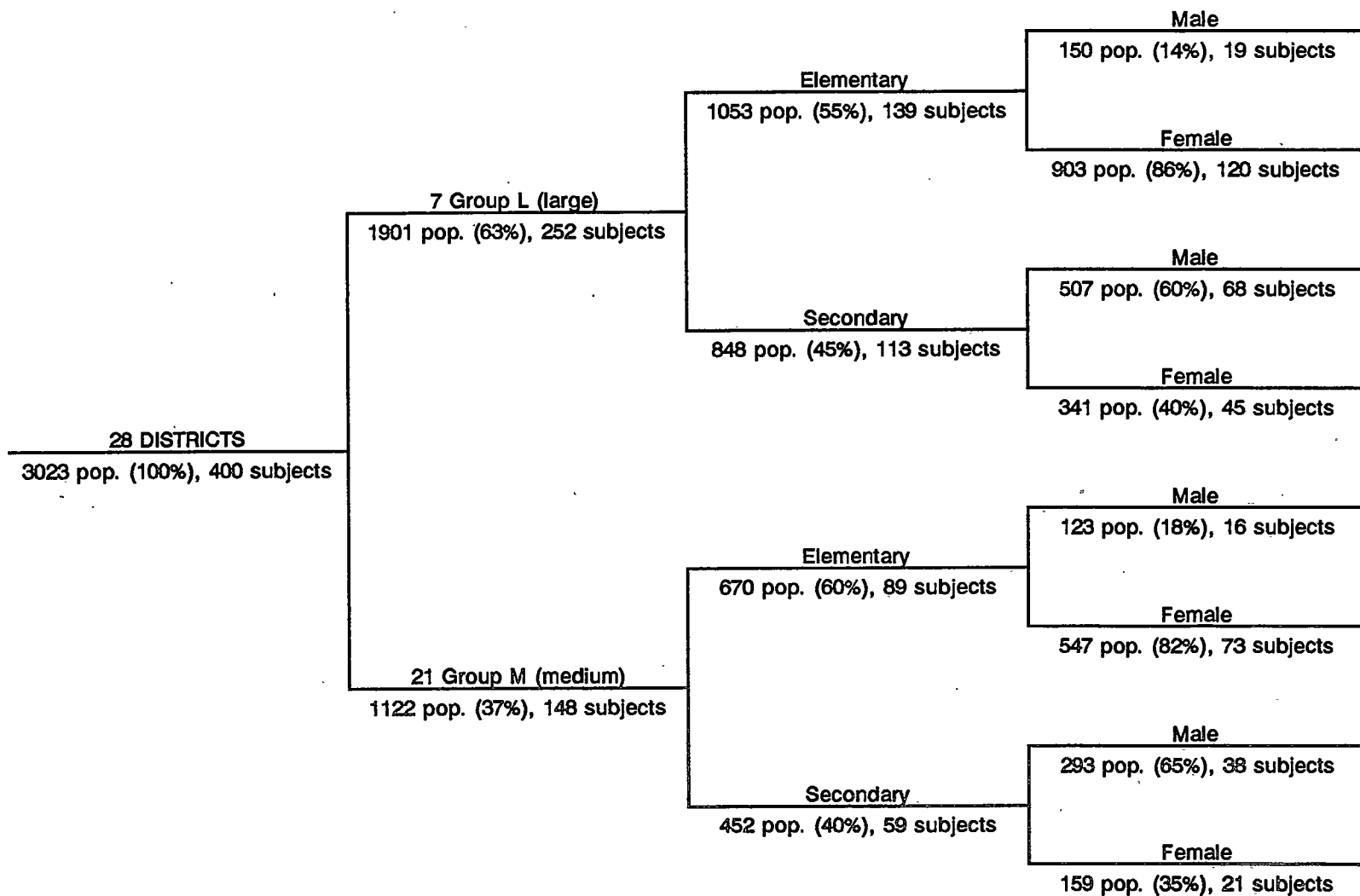
#### Introduction

The problem of this study was to determine if the level of a teacher's sense of professional and organizational efficacy influenced that teacher's perception of his/her principal's leadership behaviors and his/her willingness to accept the principal's unilateral decisions. The independent variables of interest were as follows: (1) organizational efficacy, (2) professional efficacy, (3) gender, (4) years of experience, and (5) organizational size of school district in which the teacher was employed. The dependent variables of interest were leadership behaviors and the zone of acceptance of the teacher in regard to his/her principal's unilateral decision making activities. Leadership behaviors were measured by use of the Leadership Behavior Description Questionnaire-Form XII (LBDQ) (Stogdill, 1963). The professional zone of acceptance of each teacher was established by use of the Professional Zone of Acceptance Inventory (PZAI) (Kunz and Hoy, 1976).

### Description of Sample

A sample of 400 Montana teachers who met the criteria outlined in Chapter 3 were contacted for the initial mailout in this study. These teachers came from 28 different school districts across the state of Montana. Seven of the districts were Group L organizations as defined in this study. Twenty-one of the districts were Group M organizations. In the school year of 1988-89, total teacher population for these 28 districts was 3,023 (see Figure 2). In the Group L districts, total teacher population was 1,901. For this study, the researcher selected a sample of 252 teachers from the 1,901 teachers in the Group L organizations. In the Group M districts, the total teacher population was 1,122. The researcher selected a sample of 148 teachers from the 1,122 teachers in Group M organizations for the study. Subjects for this study were also stratified according to level of teaching assignment (elementary or secondary) and according to gender. Of the 252 teachers selected from Group L organizations, 139 of them were elementary teachers, with 113 of them being secondary teachers. The elementary teachers were stratified on gender so that 19 were male and 120 were female. The secondary teachers were stratified so that 68 were male and 45 were female. Of the 148 teachers chosen from Group M organizations, 89 worked on the elementary level, while 59 were teaching on the secondary level. Stratifying these 89 teachers according to gender resulted in 16 male and 73 female participants.

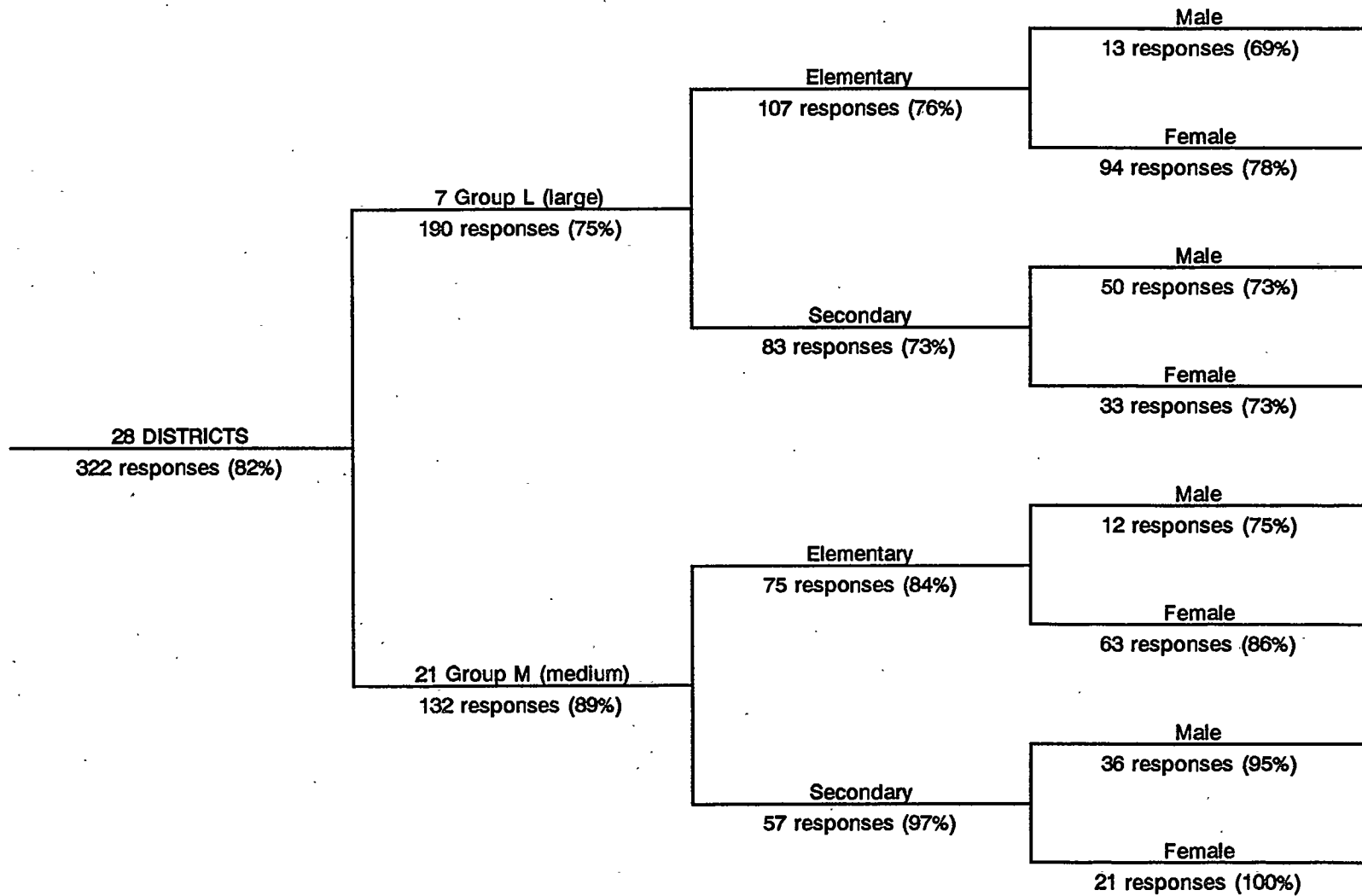
Figure 2. Composition of sample as compared to defined population (1988-89).



The secondary teachers were also stratified according to their population's gender ratio; this stratification resulted in 38 male subjects and 21 female subjects being selected. Figure 2 illustrates the composition of the sample population in relation to the actual Montana teacher population.

The data collection process involved three separate mailouts of the instrument and cover letter to the study's participants. A total of 322 respondents from the 400 teachers originally contacted in the initial mailout participated in the study. Of the 322 instruments returned, 317 instruments were used in the data analysis. Five instruments were completely eliminated from the data analysis since items on both the PZAI and the LBDQ-XII were not completed by the respondents. In analyzing the pattern of response, it was found that 71% of the 322 participants responded in the initial mailout; 21% responded in the second mailout; and 8% responded in the third mailout. According to Dillman's (1978) research, these percentages are typical for mailed survey projects using a tiered-mailout collection process. Figure 3 illustrates the pattern of response according to the three variables by which the sample was stratified. As it illustrates, the response rates from each category of stratification held reasonably stable; consequently, the conclusion can be drawn that at least on the variables of level of assigned teaching, gender, and size of organization, the nonrespondent and respondent subjects were similar.

Figure 3. Pattern of response of sample (1988-89).



### Statistical Analyses of Hypotheses

The data reported in this chapter are arranged according to the listing of the 11 hypotheses stated in Chapter 3, and the results of the statistical analyses of these hypotheses are presented in the remainder of this chapter. Since the LBDQ-Form XII consists of 12 leader behavior subscales, hypotheses concerning the LBDQ-Form XII involve the reporting of analysis for each of the following subscales: (1) representation, (2) demand reconciliation, (3) tolerance of uncertainty, (4) persuasiveness, (5) initiation of structure, (6) tolerance of freedom, (7) role assumption, (8) consideration, (9) production emphasis, (10) predictive accuracy, (11) integration, and (12) superior orientation. In reporting the data for Hypothesis 5, a summary table of means for all the subscales is included prior to the individual ANOVA tables for each subscale. Inconsistent reporting of numbers of cases is a result of teacher respondents sometimes failing to circle an item, thus resulting in the elimination of that subscale from the analysis. All hypotheses were tested at the .05 level of significance.

*Hypothesis 1. The level of efficacy of a teacher is independent of that teacher's gender.*

The results of a chi-square test of independence for Hypothesis 1 are displayed in Table 3. The chi square significance was .44778. A teacher's gender is independent of that teacher's level of efficacy. Therefore, Hypothesis 1 was retained.

Table 3. Chi square test of independence for gender by efficacy level.

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Expctd	Obsrvd	Expctd	Obsrvd	Expctd	Obsrvd	Expctd	Obsrvd
Female (N=212)	72.2	66	56.2	60	37.5	38	46.1	48
Male (N=105)	35.8	42	27.8	24	18.5	18	22.9	21
Chi Square = 2.65585      DF = 3      Signif. = .44778								

*Hypothesis 2. The level of efficacy of a teacher is independent of that teacher's years of teaching experience.*

The results of a chi-square test of independence for Hypothesis 2 are displayed in Table 4. The chi square probability was .06957. A teacher's level of efficacy is independent of that teacher's years of teaching experience. Therefore, Hypothesis 2 was retained.

Table 4. Chi square test of independence for years of teaching experience by efficacy level.

Yrs of Experience	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Expctd	Obsrvd	Expctd	Obsrvd	Expctd	Obsrvd	Expctd	Obsrvd
1-5 (N= 30)	10.2	9	8.0	14	5.8	4	6.5	3
6-10 (N= 39)	13.3	13	10.4	11	6.9	5	8.5	10
11-20 (N=167)	56.7	50	44.5	45	29.4	29	36.4	43
21-25 (N= 49)	16.6	20	13.0	7	8.6	12	10.7	10
26+ (N= 27)	9.2	14	7.2	6	4.8	5	5.9	2
Chi Square = 19.87081      DF = 12      Signif. = .06957								

***Hypothesis 3.*** *The level of efficacy of a teacher is independent of the size of organizational setting in which that teacher works.*

The results of a chi-square test of independence for Hypothesis 3 are displayed in Table 5. The chi square probability was .57550. A teacher's level of efficacy is independent of the size of the school organization in which that teacher works. Therefore, Hypothesis 3 was retained.

Table 5. Chi square test of independence for organizational size by efficacy level.

Organiz'l Size	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Expctd	Obsrvd	Expctd	Obsrvd	Expctd	Obsrvd	Expctd	Obsrvd
Large (N=184)	62.9	66	48.3	43	32.6	33	40.2	42
Medium (N=132)	45.1	42	34.7	40	23.4	23	28.8	27
Chi Square = 1.98514      DF = 3      Signif. = .57550								

***Hypothesis 4.*** *No statistically significant difference exists between the independent variable of efficacy levels and the dependent variable of leader behaviors as determined by scores on Subscales 1-12 of the Leadership Behavior Description Questionnaire-Form XII.*

Subscales on the Leadership Behavior Description Questionnaire-Form XII are as follows: (1) Representation, (2) Demand Reconciliation, (3) Tolerance of Uncertainty, (4) Persuasiveness, (5) Initiation of Structure, (6) Tolerance of Freedom, (7) Role Assumption, (8) Consideration, (9) Production Emphasis, (10) Predictive Accuracy, (11) Integration, and (12) Superior Orientation. Results of the one-way ANOVAs for each of the subscales of the

LBDQ-Form XII are displayed in Tables 6 through 18. Table 6 displays a summary of the group means of each subscale of the LBDQ-Form XII.

Table 6. Summary of ANOVA means for LBDQ-Form XII leader behavior subscales.

Efficacy Subscale	Level of Efficacy			
	Inefficacious	Professional Efficacious	Organiz'l Efficacious	Efficacious
1. Representation	18.028	18.500	18.901	19.058
2. Demand Reconciliation*	16.491	16.545	18.161	17.884
3. Tolerance of Uncertainty	31.278	31.768	33.179	33.884
4. Persuasiveness	32.324	32.720	34.393	34.884
5. Initiation of Structure*	35.454	35.987	37.143	38.073
6. Tolerance of Freedom*	34.519	36.025	38.946	38.232
7. Role Assumption	34.813	34.964	35.964	35.493
8. Consideration*	30.694	32.659	35.407	35.478
9. Production Emphasis	29.870	30.305	30.964	31.304
10. Predictive Accuracy*	15.917	16.134	16.875	17.188
11. Integration*	14.843	15.085	16.875	17.014
12. Superior Orientation	32.608	33.305	34.000	34.536

\*Significant at .05 level

Table 7. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 1, Representation (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	54.3771	3	18.1257	1.7605	.1547
Within	3191.7400	310	10.2959		

The F-value of the ANOVA was 1.7605 and  $p = .1547$ . Therefore, the hypothesis for LBDQ Subscale 1, Representation, was retained.

Table 8. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 2, Demand Reconciliation (N=315).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	170.4085	3	56.8028	3.7460	.0114
Within	4715.9217	311	15.1637		

The F-value of the ANOVA was 3.7460 and  $p =$  was .0114. Therefore, the hypothesis for LBDQ Subscale 2, Demand Reconciliation, was rejected.

A Newman-Kuels post hoc procedure for multiple comparisons was used in order to determine differences between groups at the .05 level. The analysis revealed that the mean of group 4 (efficacious) was greater than the mean of group 2 (professionally efficacious). The analysis also revealed that the mean of group 3 (organizationally efficacious) was greater than the mean of either group 1 (inefficacious) or group 2 (professionally efficacious).

Table 9. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 3, Tolerance of Uncertainty (N=315).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	352.3347	3	117.4449	2.5759	.0539
Within	14179.5510	311	45.5934		

The F-value of the ANOVA was 2.5759 and  $p = .0539$ . Therefore, the hypothesis for LBDQ Subscale 3, Tolerance of Uncertainty, was retained.

Table 10. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 4, Persuasiveness (N=315).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	369.5420	3	123.1807	2.4801	.0611
Within	15446.6358	311	49.6676		

The F-value of the ANOVA was 2.4801 and  $p = .0611$ . Therefore, the hypothesis for LBDQ Subscale 4, Persuasiveness, was retained.

Table 11. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 5, Initiation of Structure (N=315).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	333.1489	3	111.0496	3.9764	.0084
Within	8685.2511	311	27.9269		

The F-value of the ANOVA was 3.9764 and  $p = .0084$ . Therefore, the hypothesis for LBDQ Subscale 5, Initiation of Structure, was rejected.

A Newman-Kuels post hoc procedure for multiple comparisons was used in order to determine differences between groups at the .05 level. The analysis revealed that the mean of group 4 (efficacious) was greater than

the mean for either group 2 (professionally efficacious) or group 1 (inefficacious).

Table 12. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 6, Tolerance of Freedom (N=315).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	984.6678	3	328.2226	7.2549	.0001
Within	14070.0433	311	45.2413		

The F-value of the ANOVA was 7.2549 and  $p = .0001$ . Therefore, the hypothesis for LBDQ Subscale 6, Tolerance of Freedom, was rejected.

A Kuels post hoc procedure for multiple comparisons was used in order to determine differences between groups at the .05 level. The analysis revealed that the mean of group 4 (efficacious) was greater than either the mean of group 2 (professionally efficacious) or the mean of group 1 (inefficacious). The analysis also revealed that group 3 (organizationally efficacious) was greater than the mean of group 2 (professionally efficacious) and the mean of group 1 (inefficacious).

Table 13. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 7, Role Assumption (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	59.2177	3	19.7392	.5717	.6341
Within	10704.3269	310	34.5301		

The F-value of the ANOVA was .5717 and  $p = .6341$ . Therefore, the hypothesis for LBDQ Subscale 7, Role Assumption, was retained.

Table 14. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 8, Consideration (N=315).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	1330.2035	3	443.4012	8.3543	.0001
Within	16506.1267	311	53.0744		

The F-value of the ANOVA was 8.3543 and  $p = .0001$ . Therefore, the hypothesis for LBDQ Subscale 8, Consideration, was rejected.

A Newman-Kuels post hoc procedure for multiple comparisons was used in order to determine differences between groups at the .05 level. The analysis revealed the mean of group 4 (efficacious) was greater than either the mean of group 2 (professionally efficacious) or the mean of group 1 (inefficacious). The analysis also revealed the mean of group 3 (organizationally efficacious) was greater than either the mean of group 2 (professionally efficacious) or the mean of group 1 (inefficacious).

Table 15. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 9, Production Emphasis (N=315).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	102.6297	3	34.2099	1.2079	.3070
Within	8808.1005	311	28.3219		

The F-value of the ANOVA was 1.2079 and  $p = .3070$ . Therefore, the hypothesis for LBDQ Subscale 9, Production Emphasis, was retained.

Table 16. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 10, Predictive Accuracy (N=315).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	86.3943	3	28.7981	2.8850	.0359
Within	3104.4501	311	9.9822		

The F-value of the ANOVA was 2.8850 and  $p = .0359$ . Therefore, the hypothesis for LBDQ Subscale 10, Predictive Accuracy, was rejected.

A Newman-Kuels post hoc procedure for multiple comparisons was used in order to determine differences between groups at the .05 level. The analysis revealed that the mean of group 4 (efficacious) was greater than the mean of group 1 (inefficacious).

Table 17. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 11, Integration (N=315).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	306.3344	3	102.1115	6.4157	.0003
Within	4949.8370	311	15.9159		

The F-value of the ANOVA was 6.4157 and  $p = .0003$ . Therefore, the hypothesis for LBDQ Subscale 11, Integration, was rejected.

A Newman-Kuels post hoc procedure for multiple comparisons was used in order to determine differences between groups at the .05 level. The analysis revealed that the mean of group 4 (efficacious) was greater than the mean of group 2 (professionally efficacious) and the mean of group 1 (inefficacious). The analysis also revealed that the mean of group 3 (organizationally efficacious) was greater than the mean of either group 2 (professionally efficacious) or group 1 (inefficacious).

Table 18. One-way ANOVA for efficacy levels as measured by LBDQ Subscale 12, Superior Orientation (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	175.9899	3	58.6633	2.1166	.0981
Within	8592.0515	310	27.7163		

The F-value of the ANOVA was 2.1166 and  $p = .0981$ . Therefore, the hypothesis for LBDQ Subscale 12, Superior Orientation, was retained.

***Hypothesis 5.*** *No statistically significant difference exists between the independent variable of efficacy levels and the dependent variable of professional zone of acceptance as measured by the score on the Professional Zone of Acceptance Inventory.*

The data relating to Hypothesis 5 are displayed in Tables 19 and 20. The F-value of the ANOVA was 1.7109 and  $p = .1647$ . Therefore, Hypothesis 5 was retained.

Table 19. Means of Professional Zone of Acceptance Inventory scores for each efficacy group (N=314).

	Efficacy Group							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
PZAI	109.953	107	114.241	82	115.518	56	113.166	69

Table 20. One-way ANOVA for efficacy levels as measured by the score on the Professional Zone of Acceptance Inventory (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Between	1731.5181	3	577.1727	1.7109	.1647
Within	104577.8704	310	337.3480		

***Hypothesis 6.*** *No statistically significant interaction exists among the two independent variables of levels of efficacy and gender with the dependent variable of leader behaviors as determined by scores on Subscales 1-12 of the Leadership Behavior Description Questionnaire-Form XII.*

Subscales on the Leadership Behavior Description Questionnaire-Form XII are as follows: (1) Representation, (2) Demand Reconciliation, (3) Tolerance of Uncertainty, (4) Persuasiveness, (5) Initiation of Structure, (6) Tolerance of Freedom, (7) Role Assumption, (8) Consideration, (9) Production Emphasis, (10) Predictive Accuracy, (11) Integration, and (12) Superior Orientation. Results of the two-way ANOVAs for each of the subscales are displayed in Tables 21 through 44.

Table 21. Table of means for representation by level of efficacy and gender (N=313).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	18.02	66	18.61	59	19.34	38	19.71	48
Male	18.05	41	18.09	22	18.00	18	17.57	21

Table 22. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 1, Representation (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	99.135	4	24.784	2.444	.047
Levels	48.904	3	16.301	1.608	.188
Gender	44.526	1	44.526	4.392	.037
2-Way Interactions: Gender x Level	48.533	3	16.178	1.596	.190

The F-value for interaction was 1.596 and  $p = .190$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 1, Representation, was retained. The main effect for gender was significant at  $p = .037$ .

Table 23. Table of means for demand reconciliation by level of efficacy and gender (N=313).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	16.64	66	16.56	59	17.63	38	18.29	48
Male	16.27	41	16.32	22	19.28	18	16.95	21

Table 24. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 2, Demand Reconciliation (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	176.650	4	44.163	2.908	.022
Levels	173.333	3	57.778	3.804	.011
Gender	2.341	1	2.341	.154	.695
2-Way Interactions: Gender x Level	61.320	3	20.440	1.346	.031

The F-value for interaction was 1.346 and  $p = .031$ . There was interaction. Therefore, the hypothesis for LBDQ Subscale 2, Demand Reconciliation, was rejected. The nature of the interaction is displayed in Figure 4.

Table 25. Table of means for tolerance of uncertainty by level of efficacy and gender (N=313).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	32.08	66	32.08	59	33.63	38	34.40	48
Male	29.98	41	30.77	22	32.33	18	32.71	21

Table 26. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 3, Tolerance of Uncertainty (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	553.303	4	138.326	3.021	.018
Levels	335.831	3	111.944	2.445	.064
Gender	197.199	1	197.199	4.307	.064
2-Way Interactions: Gender x Level	7.498	3	2.499	.055	.983

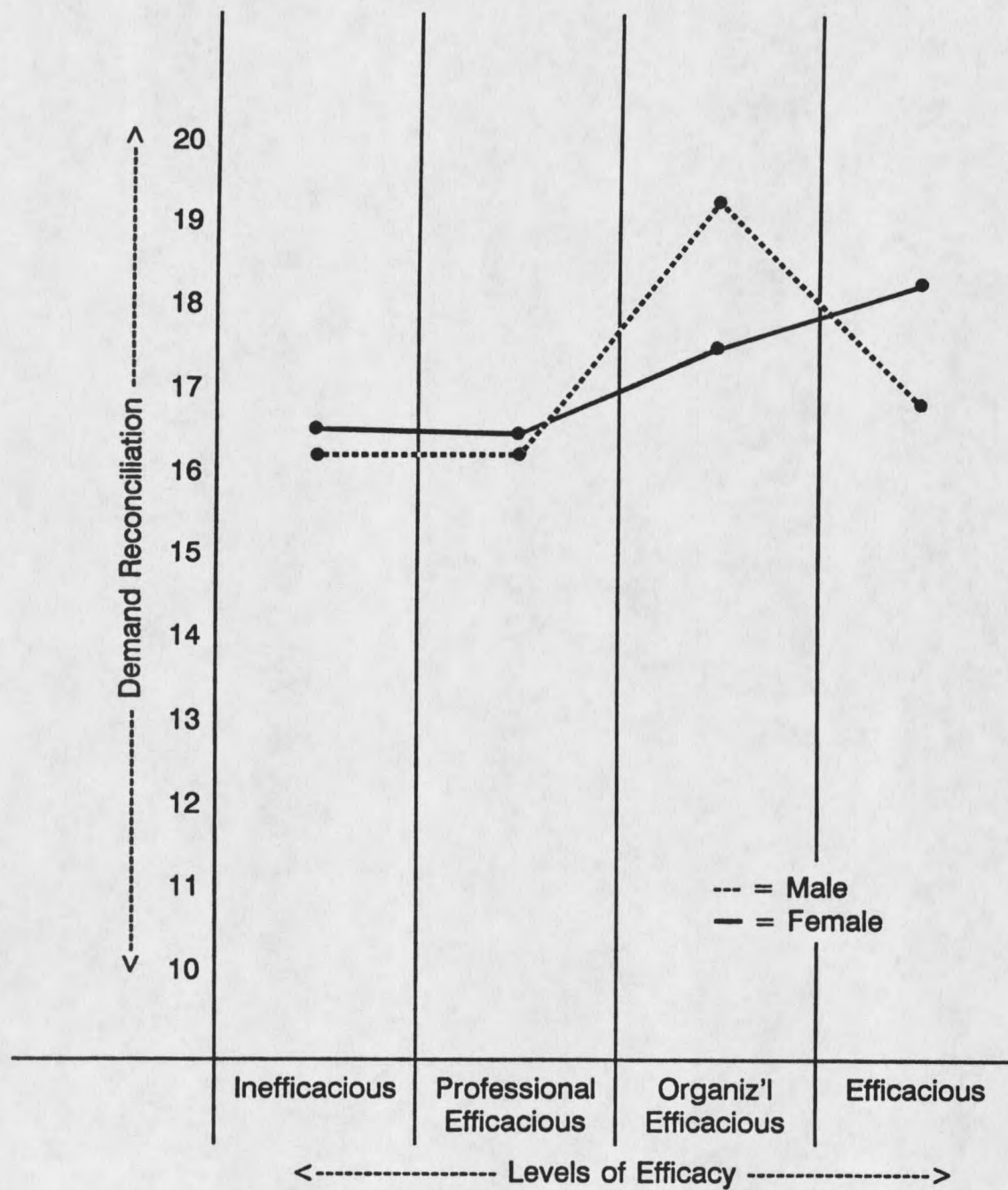


Figure 4. Interaction figure for gender and levels of efficacy as measured by LBDQ Subscale 2, Demand Reconciliation (N=313).

The F-value for interaction was .055 and  $p = .983$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 3, Tolerance of Uncertainty, was retained.

Table 27. Table of means for persuasiveness by level of efficacy and gender (N=313).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	32.52	66	32.61	59	34.74	38	36.29	48
Male	31.83	41	32.77	22	33.67	18	31.67	21

Table 28. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 4, Persuasiveness (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	524.621	4	131.155	2.663	.033
Levels	374.534	3	124.845	2.535	.057
Gender	133.508	1	133.508	2.711	.101
2-Way Interactions: Gender x Level	205.291	3	68.430	1.390	.246

The F-value for interaction was 1.390 and  $p = .246$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 4, Persuasiveness, was retained.

Table 29. Table of means for initiation of structure by level of efficacy and gender (N=313).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	35.32	66	35.98	59	37.29	38	38.81	48
Male	35.63	41	35.91	22	36.83	18	36.38	21

Table 30. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 5, Initiation of Structure (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	354.266	4	88.567	3.146	.015
Levels	329.906	3	109.969	3.906	.009
Gender	17.254	1	17.254	.613	.434
2-Way Interactions: Gender x Level	74.273	3	24.758	.879	.452

The F-value for interaction was .879 and  $p = .452$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 5, Initiation of Structure, was retained. The main effect for levels of efficacy was significant at  $p = .009$ .

Table 31. Table of means for tolerance of freedom by level of efficacy and gender (N=314).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	34.55	66	36.52	60	38.97	38	38.77	48
Male	34.37	41	34.68	22	38.89	18	37.00	21

Table 32. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 6, Tolerance of Freedom (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	1053.248	4	263.312	5.776	.000
Levels	973.032	3	324.344	7.115	.000
Gender	54.523	1	54.523	1.196	.275
2-Way Interactions: Gender x Level	46.366	3	15.462	.396	.797

The F-value for interaction was .396 and  $p = .797$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 6, Tolerance of Freedom, was retained. The main effects for levels of efficacy was significant at  $p = .000$ .

Table 33. Table of means for role assumption by level of efficacy and gender (N=314).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	34.56	66	34.68	60	35.76	38	36.13	48
Male	35.22	41	35.73	22	36.39	18	34.05	21

Table 34. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 7, Role Assumption (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	60.916	4	15.229	.439	.780
Levels	59.770	3	19.923	.575	.632
Gender	1.698	1	1.698	.049	.825
2-Way Interactions: Gender x Level	94.651	3	31.550	.910	.436

The F-value for interaction was .910 and  $p = .436$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 7, Role Assumption, was retained.

Table 35. Table of means for consideration by level of efficacy and gender (N=314).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	30.94	66	32.72	60	35.45	38	36.40	48
Male	30.29	41	32.50	22	35.33	18	33.38	21

Table 36. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 8, Consideration (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	1388.381	4	347.095	6.491	.000
Levels	1290.576	3	430.192	8.046	.000
Gender	62.474	1	62.474	1.160	.281
2-Way Interactions: Gender x Level	81.803	3	27.268	.510	.676

The F-value for interaction was .510 and  $p = .676$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 8, Consideration, was retained. The main effects for levels of efficacy was significant at  $p = .000$ .

Table 37. Table of means for production emphasis by level of efficacy and gender (N=314).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	29.86	66	30.20	60	31.21	38	32.21	48
Male	29.00	41	30.59	22	30.44	18	29.24	21

Table 38. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 9, Production Emphasis (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	139.902	4	34.975	1.236	.296
Levels	100.068	3	33.356	1.179	.318
Gender	33.696	1	33.696	1.191	.276
2-Way Interactions: Gender x Level	104.902	3	34.967	1.236	.297

The F-value for interaction was 1.236 and  $p = .297$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 9, Production Emphasis, was retained.

Table 39. Table of means for predictive accuracy by level of efficacy and gender (N=314).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	16.02	66	16.10	60	16.82	38	17.67	48
Male	15.76	41	16.23	22	17.00	18	16.10	21

Table 40. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 10, Predictive Accuracy (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	95.539	4	23.885	2.384	.051
Levels	83.989	3	27.996	2.794	.041
Gender	9.317	1	9.317	.930	.336
2-Way Interactions: Gender x Level	29.130	3	9.710	.969	.408

The F-value for interaction was .969 and  $p = .408$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 10, Predictive Accuracy, was retained. The main effects for levels of efficacy was significant at  $p = .041$ .

Table 41. Table of means for integration by level of efficacy and gender (N=314).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	14.59	66	15.03	60	17.11	38	17.63	48
Male	15.15	41	15.23	22	16.39	18	15.62	21

Table 42. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 11, Integration (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	319.532	4	79.883	5.031	.001
Levels	309.931	3	103.310	6.506	.000
Gender	6.395	1	6.395	.403	.526
2-Way Interactions: Gender x Level	67.064	3	22.355	1.408	.241

The F-value for interaction was 1.408 and  $p = .241$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 11, Integration, was retained. The main effects for levels of efficacy was significant at  $p = .000$ .

Table 43. Table of means for superior orientation by level of efficacy and gender (N=314).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	32.92	66	33.50	60	34.79	38	35.27	48
Male	32.10	41	32.77	22	32.33	18	32.86	21

Table 44. Two-way ANOVA for efficacy levels and gender as measured by LBDQ Subscale 12, Superior Orientation (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	316.430	4	79.108	2.879	.023
Levels	159.064	3	53.021	1.930	.125
Gender	140.440	1	140.440	5.111	.024
2-Way Interactions: Gender x Level	44.150	3	14.717	.536	.658

The F-value for interaction was .536 and  $p = .658$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 12, Superior Orientation, was retained. The main effects for gender was significant at  $p = .024$ .

***Hypothesis 7.*** *No statistically significant interaction exists among the two independent variables of levels of efficacy and gender with the dependent variable of professional zone of acceptance as measured by the score on the Professional Zone of Acceptance Inventory.*

The data relating to Hypothesis 7 are displayed in Tables 45 and 46. The F-value for interaction was 1.070 and  $p = .362$ . There was no interaction. Therefore, Hypothesis 7 was retained. The main effects for gender was significant at  $p = .010$ .

Table 45. Table of means for Professional Zone of Acceptance Inventory by level of efficacy and gender (N=314).

Gender	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
Female	113.55	66	116.51	59	115.47	38	115.51	47
Male	104.17	41	108.67	24	115.61	18	113.76	21

Table 46. Two-way ANOVA for efficacy levels and gender as measured by Professional Zone of Acceptance Inventory (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	3985.262	4	996.316	3.011	.018
Levels	1446.416	3	482.139	1.457	.226
Gender	2253.744	1	2253.744	6.811	.010
2-Way Interactions: Gender x Level	1062.573	3	354.191	1.070	.362

***Hypothesis 8.*** *No statistically significant interaction exists among the two independent variables of levels of efficacy and years of teaching experience with the dependent variable of leader behaviors as measured by scores on Subscales 1-12 of the Leadership Behavior Questionnaire-Form XII.*

The data relating to Hypothesis 8 are displayed in Tables 47 through 70. For the purpose of this hypothesis, years of experience were categorized as follows: Category 1, 1-5 years; Category 2, 6-10 years; Category 3, 11-20 years; and Category 4, 21 years and up. While the F for levels of efficacy main effect for Subscale 3 was significant at  $p = 0.48$  and the F for levels of efficacy main effect for Subscale 4 was significant at  $p = 0.48$ , direct comparisons should not be drawn between the findings of the two-way ANOVA and the findings in Hypothesis 4 where the mean scores on these subscales were not found to be significantly different when analyzed with a one-way ANOVA. The use of unweighted means to equate cell sizes in the two-way ANOVA analysis and the shift in the actual number of cases analyzed makes such comparison difficult.

Table 47. Table of means for representation by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	17.67	9	18.15	13	20.75	4	21.00	3
(2) 6-10	17.54	13	19.09	11	18.20	5	20.10	10
(3) 11-20	18.04	50	18.42	43	19.86	29	18.79	43
(4) 21+	18.29	35	18.43	14	17.17	18	18.69	13

Table 48. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 1, Representation (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	68.428	6	11.405	1.111	.356
Levels	50.917	3	16.972	1.653	.177
Yrs of Experience	3.819	3	4.606	.449	.718
2-Way Interactions: Yrs Exper x Level	122.519	9	13.613	1.326	.223

The F-value for interaction was 1.326 and  $p = .223$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 1, Representation, was retained.

Table 49. Table of means for demand reconciliation by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	15.78	9	17.46	13	17.00	4	20.00	3
(2) 6-10	16.00	13	16.73	11	18.80	5	19.70	10
(3) 11-20	16.74	50	16.70	43	18.69	29	17.26	43
(4) 21+	16.51	35	14.79	14	17.29	18	18.08	13

Table 50. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 2, Demand Reconciliation (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	200.449	6	33.408	2.186	.044
Levels	176.593	3	58.864	3.851	.010
Yrs of Experience	26.140	3	8.713	.570	.635
2-Way Interactions: Yrs Exper x Level	130.229	9	14.470	.947	.485

The F-value for interaction was .947 and  $p = .485$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 2, Demand Reconciliation, was retained. The main effects for levels of efficacy was significant at  $p = .010$ .

Table 51. Table of means for tolerance of uncertainty by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	31.11	9	32.00	13	34.25	4	38.00	3
(2) 6-10	31.08	13	28.64	11	30.00	5	37.70	10
(3) 11-20	31.10	50	32.05	43	34.31	29	32.63	43
(4) 21+	31.63	35	32.93	14	32.00	18	34.15	13

Table 52. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 3, Tolerance of Uncertainty (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	376.986	6	62.831	1.387	.228
Levels	368.315	3	122.772	2.672	.048
Yrs of Experience	20.881	3	6.960	.151	.929
2-Way Interactions: Yrs Exper x Level	498.910	9	55.434	1.206	.291

The F-value for interaction was 1.206 and  $p = .291$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 3, Tolerance of Uncertainty, was retained. The main effects for levels of efficacy was significant at  $p = .048$ .

Table 53. Table of means for persuasiveness by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	33.11	9	34.38	13	37.00	4	38.67	3
(2) 6-10	31.31	13	32.09	11	29.80	5	35.60	10
(3) 11-20	32.48	50	33.02	43	35.17	29	34.58	43
(4) 21+	32.06	35	30.36	14	33.83	18	34.46	13

Table 54. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 4, Persuasiveness (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	563.189	6	93.865	1.865	.088
Levels	405.189	3	135.063	2.673	.048
Yrs of Experience	172.075	3	57.358	1.135	.335
2-Way Interactions: Yrs Exper x Level	182.461	9	20.273	.401	.934

The F-value for interaction was .401 and  $p = .934$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 4, Persuasiveness, was retained. The main effects for levels of efficacy was significant at  $p = .048$ .

Table 55. Table of means for initiation of structure by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	35.89	9	36.08	13	39.25	4	43.00	3
(2) 6-10	34.15	13	38.00	11	35.00	5	37.20	10
(3) 11-20	35.90	50	35.60	43	37.72	29	37.67	43
(4) 21+	35.14	35	35.36	14	38.33	18	38.92	13

Table 56. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 5, Initiation of Structure (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	377.762	6	62.960	2.219	.041
Levels	342.589	3	114.196	4.025	.008
Yrs of Experience	40.750	3	13.583	.479	.697
2-Way Interactions: Yrs Exper x Level	211.698	9	23.522	.829	.590

The F-value for interaction was .829 and  $p = .590$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 5, Initiation of Structure, was retained. The main effects for levels of efficacy was significant at  $p = .008$ .

Table 57. Table of means for tolerance of freedom by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	34.00	9	35.15	13	36.75	4	45.00	3
(2) 6-10	35.15	13	33.82	11	37.20	5	39.10	10
(3) 11-20	34.12	50	36.27	43	39.66	29	37.40	43
(4) 21+	34.86	35	37.79	14	38.78	18	38.77	13

Table 58. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 6, Tolerance of Freedom (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	1031.327	6	171.888	3.741	.001
Levels	1005.175	3	335.058	7.292	.000
Yrs of Experience	32.602	3	10.867	.237	.871
2-Way Interactions: Yrs Exper x Level	324.799	9	36.089	.785	.630

The F-value for interaction was .785 and  $p = .630$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 6, Tolerance of Freedom, was retained. The main effects for levels of efficacy was significant at  $p = .000$ .

Table 59. Table of means for role assumption by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	35.33	9	37.54	13	37.75	4	37.33	3
(2) 6-10	32.69	13	34.55	11	36.60	5	37.50	10
(3) 11-20	35.24	50	34.98	44	36.00	29	35.16	43
(4) 21+	35.86	35	32.86	14	35.33	18	34.62	13

Table 60. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 7, Role Assumption (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	186.159	6	31.027	.889	.503
Levels	71.203	3	23.734	.680	.585
Yrs of Experience	126.941	3	42.734	1.213	.305
2-Way Interactions: Yrs Exper x Level	180.507	9	20.056	.575	.818

The F-value for interaction was .575 and  $p = .818$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 7, Role Assumption, was retained.

Table 61. Table of means for consideration by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	27.89	9	32.31	13	38.25	4	42.67	3
(2) 6-10	30.15	13	32.18	11	32.40	5	36.70	10
(3) 11-20	30.78	50	32.84	44	36.59	29	34.49	43
(4) 21+	31.49	35	32.79	14	33.72	18	36.15	13

Table 62. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 8, Consideration (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	1333.003	6	222.167	4.134	.001
Levels	1316.399	3	438.800	8.164	.000
Yrs of Experience	7.096	3	2.365	.044	.988
2-Way Interactions: Yrs Exper x Level	482.584	9	53.620	.988	.442

The F-value for interaction was .998 and  $p = .442$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 8, Consideration, was retained. The main effects for levels of efficacy was significant at  $p = .000$ .

Table 63. Table of means for production emphasis by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	32.56	9	31.00	13	33.75	4	41.33	3
(2) 6-10	28.15	13	32.45	11	27.30	5	29.40	10
(3) 11-20	29.76	50	30.14	44	31.52	29	31.35	43
(4) 21+	29.89	35	28.50	14	30.50	18	30.31	13

Table 64. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 9, Production Emphasis (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	362.766	6	60.461	2.218	.041
Levels	122.479	3	46.826	1.497	.215
Yrs of Experience	256.560	3	85.520	3.137	.026
2-Way Interactions: Yrs Exper x Level	416.773	9	46.308	1.698	.089

The F-value for interaction was 1.698 and  $p = .089$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 9, Production Emphasis, was retained.

Table 65. Table of means for predictive accuracy by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	16.56	9	16.00	13	15.50	4	19.00	3
(2) 6-10	15.92	13	16.73	11	15.40	5	18.00	10
(3) 11-20	15.90	50	16.45	44	17.48	29	16.77	43
(4) 21+	15.77	35	14.79	14	16.61	18	17.54	13

Table 66. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 10, Predictive Accuracy (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	96.718	6	16.120	1.596	.148
Levels	82.983	3	27.661	2.739	.044
Yrs of Experience	10.496	3	3.499	.346	.729
2-Way Interactions: Yrs Exper x Level	84.058	9	9.340	.925	.504

The F-value for interaction was .925 and  $p = .504$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 10, Predictive Accuracy, was retained. The main effects for levels of efficacy was significant at  $p = .044$ .

Table 67. Table of means for integration by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	13.89	9	14.38	13	18.50	4	20.67	3
(2) 6-10	12.77	13	15.36	11	14.60	5	17.60	10
(3) 11-20	14.98	50	15.32	44	17.79	29	16.60	43
(4) 21+	15.54	35	14.79	14	15.67	18	17.08	13

Table 68. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 11, Integration (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	339.358	6	56.560	3.585	.002
Levels	304.109	3	101.370	6.425	.000
Yrs of Experience	26.109	3	8.740	.554	.646
2-Way Interactions: Yrs Exper x Level	204.556	9	22.728	1.441	.170

The F-value for interaction was 1.441 and  $p = .170$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 11, Integration, was retained. The main effects for levels of efficacy was significant at  $p = .000$ .

Table 69. Table of means for superior orientation by level of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	34.56	9	32.31	13	36.75	4	40.33	3
(2) 6-10	30.54	13	33.91	11	30.80	5	35.50	10
(3) 11-20	32.82	50	33.50	44	34.93	29	34.26	43
(4) 21+	32.57	35	33.14	14	32.78	18	33.38	13

Table 70. Two-way ANOVA for efficacy levels and years of experience as measured by LBDQ Subscale 12, Superior Orientation (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	260.662	6	43.444	1.576	.154
Levels	172.214	3	57.405	2.082	.103
Yrs of Experience	84.673	3	28.224	1.024	.382
2-Way Interactions: Yrs Exper x Level	290.629	9	32.292	1.171	.313

The F-value for interaction was 1.171 and  $p = .313$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 12, Superior Orientation, was retained.

***Hypothesis 9.** No statistically significant interaction exists among the two independent variables of levels of efficacy and years of teaching experience with the dependent variable of professional zone of acceptance as measured by the score on the Professional Zone of Acceptance Inventory.*

The data relating to Hypothesis 9 are displayed in Tables 71 and 72. The F-value for interaction was 1.548 and  $p = .131$ . There was no interaction. Therefore, Hypothesis 9 was retained.

Table 71. Table of means for Professional Zone of Acceptance Inventory by levels of efficacy and years of experience (N=314).

Yrs of Experience by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) 1-5	112.63	8	113.07	14	114.25	4	123.33	3
(2) 6-10	109.69	13	114.91	11	96.80	5	118.50	10
(3) 11-20	113.10	50	112.27	44	117.62	29	112.93	42
(4) 21+	105.08	36	121.07	14	117.61	18	116.92	13

Table 72. Two-way ANOVA for efficacy levels and years of experience as measured by Professional Zone of Acceptance Inventory (N=314).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	1845.791	6	307.632	.919	.482
Levels	1672.065	3	557.362	1.664	.175
Yrs of Experience	114.273	3	38.091	.114	.952
2-Way Interactions: Yrs Exper x Level	4664.679	9	518.298	1.548	.131

***Hypothesis 10.*** *No statistically significant interaction exists among the two independent variables of levels of efficacy and organizational group of the school with the dependent variable of leader behaviors as measured by scores on Subscales 1-12 of the Leadership Behavior Description Questionnaire-Form XII.*

The data relating to Hypothesis 10 are displayed in Tables 73 through 96. For the purpose of this hypothesis, organizational group was categorized as follows: Category 1, or Group L organizations, had a district-wide student

enrollment of 3,500 or more; Category 2, or Group M organizations, had a district-wide student enrollment from 1,000 to 3,499.

Table 73. Table of means for representation by level of efficacy and organizational group (N=312).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	18.62	65	18.59	41	19.45	33	18.76	42
(2) Grp M enroll 1,000-3,499	17.12	42	18.33	39	18.13	23	19.52	27

Table 74. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 1, Representation (N=312).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	86.122	4	21.530	2.116	.079
Levels	54.710	3	18.237	1.792	.149
Organiz'l Group	31.452	1	31.452	3.091	.080
2-Way Interactions: Org Group x Level	60.116	3	20.039	1.969	.119

The F-value for interaction was 1.969 and  $p = .119$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 1, Representation, was retained.

Table 75. Table of means for demand reconciliation by level of efficacy and organizational group (N=312).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	17.00	65	15.88	41	18.42	33	18.02	42
(2) Grp M enroll 1,000-3,499	15.71	42	17.10	39	17.78	23	17.67	27

Table 76. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 2, Demand Reconciliation (N=312).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	182.735	4	45.684	3.010	.019
Levels	173.428	3	57.809	3.809	.011
Organiz'l Group	6.944	1	6.944	.458	.499
2-Way Interactions: Org Group x Level	72.879	3	24.293	1.601	.189

The F-value for interaction was 1.601 and  $p = .189$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 2, Demand Reconciliation, was retained. The main effects for levels of efficacy was significant at  $p = .011$ .

Table 77. Table of means for tolerance of uncertainty by level of efficacy and organizational group (N=312).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	32.43	65	32.37	41	32.70	33	33.55	42
(2) Grp M enroll 1,000-3,499	29.48	42	31.03	39	33.87	23	34.41	27

Table 78. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 3, Tolerance of Uncertainty (N=312).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	426.212	4	106.553	2.334	.056
Levels	350.433	3	116.811	2.559	.055
Organiz'l Group	68.953	1	68.953	1.510	.220
2-Way Interactions: Org Group x Level	220.459	3	73.486	1.610	.187

The F-value for interaction was 1.610 and  $p = .187$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 3, Tolerance of Uncertainty, was retained.

Table 79. Table of means for persuasiveness by level of efficacy and organizational group (N=312).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	33.08	65	33.05	41	34.73	33	35.00	42
(2) Grp M enroll 1,000-3,499	30.98	42	32.08	39	33.91	23	34.70	27

Table 80. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 4, Persuasiveness (N=312).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	504.272	4	126.068	2.525	.041
Levels	389.317	3	129.772	2.600	.052
Organiz'l Group	104.759	1	104.759	2.098	.148
2-Way Interactions: Org Group x Level	37.143	3	12.381	.248	.863

The F-value for interaction was .248 and  $p = .863$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 4, Persuasiveness, was retained.

Table 81. Table of means for initiation of structure by level of efficacy and organizational group (N=312).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	36.32	65	35.66	41	37.70	33	38.05	42
(2) Grp M enroll 1,000-3,499	34.07	42	36.26	39	36.35	23	38.11	27

Table 82. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 5, Initiation of Structure (N=312).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	389.953	4	97.488	3.480	.008
Levels	332.563	3	110.854	3.957	.009
Organiz'l Group	52.145	1	52.145	1.861	.173
2-Way Interactions: Org Group x Level	109.090	3	36.363	1.298	.275

The F-value for interaction was 1.298 and  $p = .275$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 5, Initiation of Structure, was retained. The main effects for levels of efficacy was significant at  $p = .009$ .

Table 83. Table of means for tolerance of freedom by level of efficacy and organizational group (N= 313).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	35.74	65	37.40	42	39.42	33	38.79	42
(2) Grp M enroll 1,000-3,499	35.52	42	35.59	39	38.26	23	37.37	27

Table 84. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 6, Tolerance of Freedom (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	1249.217	4	312.304	6.942	.000
Levels	996.629	3	332.210	7.385	.000
Organiz'l Group	249.776	1	249.776	5.552	.019
2-Way Interactions: Org Group x Level	78.584	3	26.195	.582	.627

The F-value for interaction was .582 and  $p = .627$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 6, Tolerance of Freedom, was retained. The main effects for organizational group was significant at  $p = .019$ . The main effects for levels of efficacy was significant at  $p = .000$ .

Table 85. Table of means for role assumption by level of efficacy and organizational group (N=313).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	36.05	65	34.00	42	37.24	33	35.24	42
(2) Grp M enroll 1,000-3,499	32.90	42	35.97	39	34.13	23	35.89	27

Table 86. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 7, Role Assumption (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	127.576	4	31.894	.950	.435
Levels	58.026	3	19.342	.576	.631
Organiz'l Group	67.902	1	67.902	2.024	.156
2-Way Interactions: Org Group x Level	400.927	3	133.642	3.983	.008

The F-value for interaction was 3.983 and  $p = .008$ . There was interaction. Therefore, the hypothesis for LBDQ Subscale 7, Role Assumption, was rejected. The nature of the interaction is displayed in Figure 5.

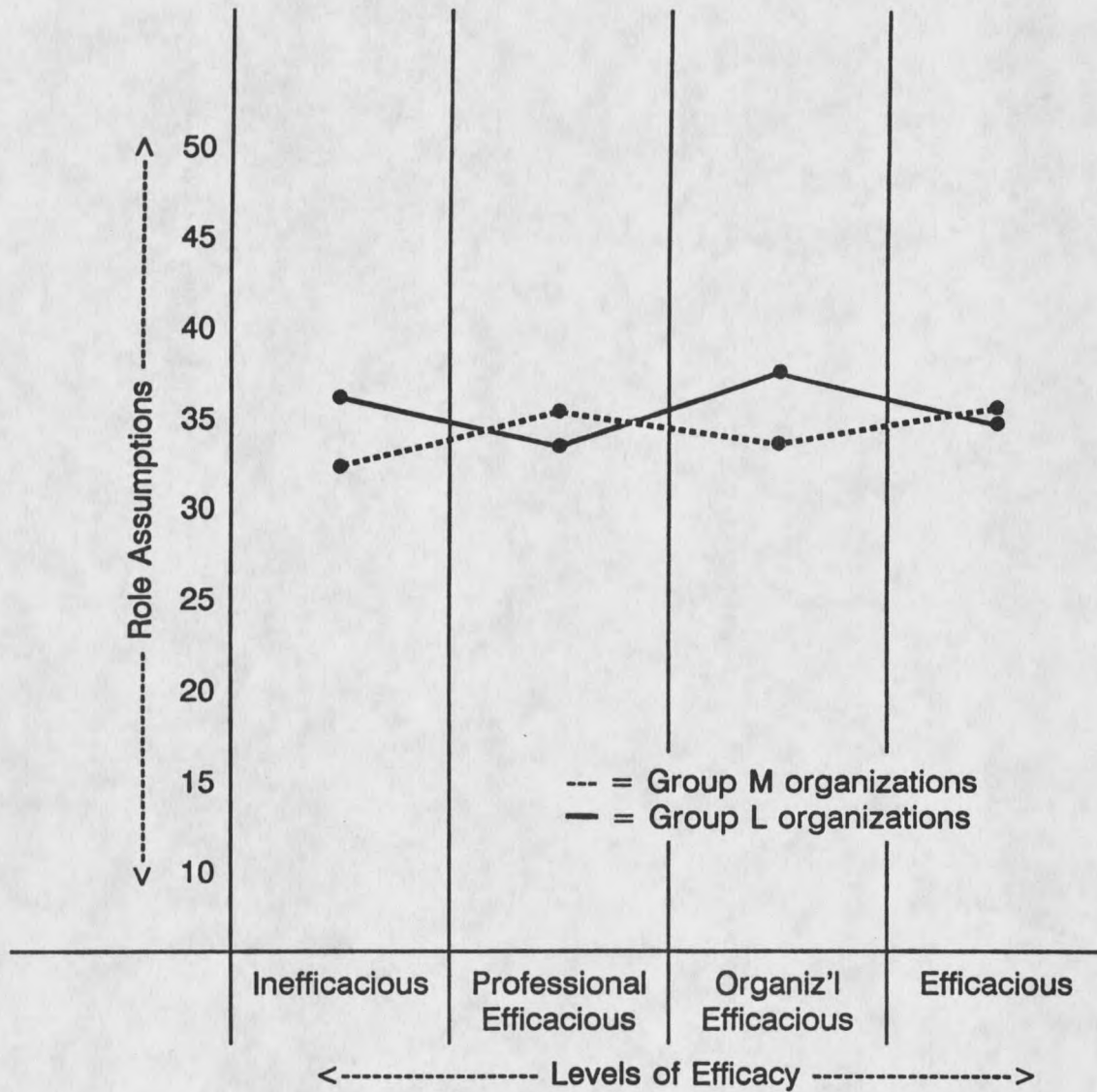


Figure 5. Interaction figure for organizational group and levels of efficacy as measured by LBDQ Subscale 7, Role Assumption (N=313).

Table 87. Table of means for consideration by level of efficacy and organizational group (N=313).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	36.05	65	34.00	42	37.24	17	35.24	42
(2) Grp M enroll 1,000-3,499	32.90	42	35.97	39	34.13	23	35.89	27

Table 88. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 8, Consideration (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	1420.926	4	355.231	6.704	.000
Levels	1325.768	3	441.923	.340	.000
Organiz'l Group	93.095	1	93.095	1.757	.186
2-Way Interactions: Org Group x Level	246.719	3	82.240	1.552	.201

The F-value for interaction was 1.552 and  $p = .201$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 8, Consideration, was retained. The main effects of levels of efficacy was significant at  $p = .000$ .

Table 89. Table of means for production emphasis by level of efficacy and organizational group (N=313).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	30.08	65	29.88	42	30.91	33	31.17	42
(2) Grp M enroll 1,000-3,499	29.48	42	30.74	39	31.04	23	31.52	27

Table 90. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 9, Production Emphasis (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	107.676	4	26.919	.969	.443
Levels	106.659	3	35.553	1.236	.835
Organiz'l Group	1.248	1	1.248	.043	.297
2-Way Interactions: Org Group x Level	25.287	3	8.429	.293	.830

The F-value for interaction was .293 and  $p = .830$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 9, production Emphasis, was retained.

Table 91. Table of means for predictive accuracy by level of efficacy and organizational group (N=313).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	16.45	65	16.24	42	17.15	33	17.12	42
(2) Grp M enroll 1,000-3,499	15.10	42	15.92	39	16.48	23	17.30	27

Table 92. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 10, Predictive Accuracy (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	117.753	4	29.438	2.959	.020
Levels	86.245	3	28.748	2.890	.036
Organiz'l Group	29.233	1	29.233	2.939	.087
2-Way Interactions: Org Group x Level	25.996	3	8.665	.871	.456

The F-value for interaction was .871 and  $p = .456$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 10, Predictive Accuracy, was retained. The main effects for levels of efficacy was significant at  $p = .036$ .

Table 93. Table of means for integration by level of efficacy and organizational group (N=313).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	15.60	65	14.88	42	16.91	33	16.67	42
(2) Grp M enroll 1,000-3,499	13.57	42	15.31	39	16.83	23	17.56	27

Table 94. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 11, Integration (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	324.211	4	81.053	5.139	.001
Levels	309.686	3	103.229	6.545	.000
Organiz'l Group	11.605	1	11.605	.736	.392
2-Way Interactions: Org Group x Level	110.150	3	36.717	2.328	.075

The F-value for interaction was 2.328 and  $p = .075$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 11, Integration, was retained. The main effects for levels of efficacy was significant at  $p = .000$ .

Table 95. Table of means for superior orientation by level of efficacy and organizational group (N=313).

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	32.95	65	33.86	42	33.94	33	34.05	42
(2) Grp M enroll 1,000-3,499	32.07	42	32.77	39	34.09	23	35.30	27

Table 96. Two-way ANOVA for efficacy levels and organizational group as measured by LBDQ Subscale 12, Superior Orientation (N=313).

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	181.675	4	45.419	1.626	.167
Levels	175.015	3	58.338	2.089	.102
Organiz'l Group	6.387	1	6.387	.229	.633
2-Way Interactions: Org Group x Level	63.334	3	21.111	.756	.520

The F-value for interaction was .756 and  $p = .520$ . There was no interaction. Therefore, the hypothesis for LBDQ Subscale 12, Superior Orientation, was retained.

***Hypothesis 11. No statistically significant interaction exists among the two independent variables of levels of efficacy and organizational group of the school with the dependent variable of professional zone of acceptance as measured by the score on the Professional Zone of Acceptance Inventory.***

The data relating to Hypothesis 11 are displayed in Tables 97 and 98.

The F-value for interaction was 1.638 and  $p = .181$ . There was no interaction.

Therefore, Hypothesis 11 was retained.

**Table 97. Table of means for Professional Zone of Inventory by levels of efficacy and organizational group (N=313).**

Organiz'l Group by Category	Level of Efficacy							
	Inefficacious		Professional Efficacious		Organizational Efficacious		Efficacious	
	Mean	No.	Mean	No.	Mean	No.	Mean	No.
(1) Grp L enroll 3,500+	111.94	65	115.40	42	115.91	33	119.95	41
(2) Grp M enroll 1,000-3,499	106.88	42	113.13	40	114.96	23	119.56	27

**Table 98. Two-way ANOVA for efficacy levels and organizational group as measured by Professional Zone of Acceptance Inventory (N=313).**

Source	Sum of Squares	DF	Mean Square	F	p-Value
Main Effects	1795.146	4	448.786	1.331	.258
Levels	1758.075	3	586.025	1.738	.159
Organiz'l Group	55.476	1	55.476	.165	.685
2-Way Interactions: Org Group x Level	1657.284	3	552.428	1.638	.181

## CHAPTER 5

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The formation of the problem of this study grew out of a critical analysis of the second-wave reform recommendations for the profession of teaching (Carnegie Forum, 1986; Holmes Group, 1986; Kearns and Doyle, 1988), and a concern that these recommendations were being made with inadequate information about how teachers perceived both their work experiences and their work roles in the school setting. In general, the major recommendation of second-wave reform agendas is the idea of "empowerment" for the classroom teacher -- empowerment through increased knowledge bases concerning effective instruction (Holmes Group, 1986), through increased organizational roles ("a voice in running the school") (Carnegie Forum, 1986; Kearns and Doyle, 1988), and through increased career opportunities and challenges (career ladders, peer supervision tasks, etc.) (Carnegie Forum, 1986). Despite all these empowerment recommendations, however, the literature in teaching supported the idea that classroom teachers have historically been fairly unenthusiastic as a group toward change processes which asked them to invest time and effort in areas which were not directly student-focused (Lortie, 1969; Eisenhart et al., 1988; Cuban, 1984, 1988a).

A basic truism of teaching is the belief that students are the primary source of focus, self-esteem and reward for teachers.

The research of Ashton and Webb (1986) and Gibson and Dembo (1984) formulated a conceptualization of teachers' sense of work efficacy based almost exclusively on the beliefs teachers hold about their ability to do classroom instruction so all students experience achievement regardless of the students' backgrounds. This conceptualization of teachers' individual work efficacy supported the traditional idea that teachers mainly define their work lives and roles in terms of the classroom (Lortie, 1969). From interviews with experienced teachers and from a careful reading of research on teachers' work lives by Liebermann (1988a, 1988b), Rosenholtz (1987), and McLaughlin et al. (1986), this conceptualization of teachers' individual work efficacy appeared incomplete. Fuller et al. (1982) also theorized that such a definition of efficacy was inadequate for understanding teacher perceptions about their work efficacy, particularly if change activity was occurring in the teacher's workplace. Fuller et al. proposed a bidimensional model of efficacy based on: (1) the traditional concept of teacher work efficacy (ability to perform effective instruction for all students), and (2) a new component of work efficacy involving organizational efficacy -- essentially a teacher's perception of his/her ability to exercise influence on organizational superiors beyond the classroom.

This theoretical restructuring of the sources of teachers' individual work efficacy suggested by Fuller et al. (1982) was intriguing in light of recent teacher concerns highlighted by McLaughlin et al. (1986), the Boston Women's Teachers' Group (1983), and the findings of both a national survey of teachers concerning first-wave reform measures and their reactions (Carnegie Foundation, 1988) and a research study by Rosenholtz (1987) which looked at first-wave reforms involving greater accountability and career ladders in Tennessee and Utah. The teachers these researchers investigated traced a pattern of increasing work frustration and job dissatisfaction when the teacher role was perceived by supervisors as too narrowly defined in terms of the classroom or too rigidly monitored by the bureaucracy. The Carnegie report (1988) focused specifically on first-wave reform measures and found teachers feeling increasingly "disempowered in their workplace." However, at the same time that the above researchers were reporting their findings, Eisenhart et al. (1988) reconfirmed that teachers had a decided preference for change activities which increased their ability to work effectively with students and a pronounced unwillingness to be involved in change activities which focused beyond the classroom and the students. Obviously, these conflicting findings in regard to teacher belief systems about their work role indicated that perhaps the suggestion of Fuller et al. (1982) that work efficacy was composed of both organizational and classroom efficacy was a potentially powerful one for understanding teachers and their perceptions of

their work experiences, work roles, and leader activities of their principals. Increased understanding of this aspect of teacher beliefs and experiences is of value in light of second-wave reform agendas. Organizational researchers (Kanter, 1977; Lipsky, 1980) have noted that a sense of powerlessness in mid-level professionals in bureaucratic organizations can have negative consequences for the overall accomplishment of the organization's goals -- especially in relation to goals requiring additional or new effort and expenditure of time and emotion by the professional staff. Perhaps the conflicting information teacher researchers have disclosed about teacher beliefs in regard to change and their work lives and roles is linked to differing beliefs individual teachers hold in regard to their efficacy to operate both in the classroom and in the larger work organization. Bandura (1986) has established that level of efficacy influences choices individuals will make in regard to experiences they will elect to do and in regard to personal career choices.

The initial purpose of this study was to discover if teachers did have different perceptions about their ability to perform the tasks of teaching in terms of their students and in terms of their ability to exercise influence with their superiors in the larger school organization. The study sought to establish if four different levels of efficacy belief existed among the teachers. The four teacher groupings were defined as follows:

- (1) The Inefficacious -- refers to that group of teachers who reflect a low level of efficacy in both the domain of professional efficacy and in the domain of organizational efficacy.
- (2) The Professionally Efficacious -- refers to that group of teachers who reflect a high level of efficacy in the domain of professional efficacy (ability to teach all students) but a low level of efficacy in the domain of organizational efficacy (ability to influence superiors).
- (3) The Organizationally Efficacious -- refers to that group of teachers who reflect a high level of efficacy in the domain of organizational efficacy and a low level of efficacy in professional efficacy.
- (4) The Efficacious -- refers to that group of teachers who reflect high levels of efficacy in both the domain of professional efficacy and in the domain of organizational efficacy.

If these different groupings did exist among teachers, the researcher then sought to discover if varying efficacy levels affected how teachers perceived their principal functioning as a leader in the school workplace. Since leadership activity is a critical factor in any successful change process, investigation of leader behaviors appeared appropriate. The dependent variables identified for investigation were as follows: (1) leader behaviors, and (2) teachers' professional zone of acceptance in relation to their principal's unilateral decision making.

In May 1989, a questionnaire consisting of Kunz and Hoy's (1976) PZAI and Stogdill's (1963) LBDQ-Form XII, plus selected demographic questions, was mailed to 400 Montana public school teachers. A total of 320 questionnaires were returned. Of those 320 returned questionnaires, 317 questionnaires were used to group the teachers on the independent variable of efficacy levels. Teachers in this study were grouped into four efficacy categories: (1) inefficacious, (2) professionally efficacious, (3) organizationally efficacious, and (4) efficacious.

#### Demographic Information on Surveyed Teachers

Demographic items on the questionnaire enabled the researcher to draw the following conclusions about the nature of the teachers sampled in this survey. Teachers in the state of Montana are largely trained at Montana colleges; 69% of teachers surveyed indicated they received their initial degree in Montana. Seventy-two percent of the teachers surveyed had worked only in Montana during their teaching careers. Teachers in the state of Montana are a very stable group with regard to their job; 248 of 317 teachers used in the data analysis had been in the field 11 years or more, and a majority of them were in their first or second place of teaching employment. Few of the teachers surveyed had worked in either an administrative or supervisory role at any point in their work lives; only 21% of the teachers reported doing so.

Only 8% of the teachers surveyed held any type of a supervisory or administrative endorsement.

The above information helped the researcher to conclude that a majority of the teachers in this study were experienced, long-term classroom teachers with little interest in seeking a supervisory role in their schools. The teachers were also very Montana-based, both in their training and their job experience. Unlike national studies of teaching (Carnegie Foundation, 1988), most Montana teachers are generally content with teaching; 79% of the Montana teachers surveyed indicated they would elect to teach again if they had the opportunity to make that choice. Montana teachers are unique in regard to the high percentage who would choose teaching again as a career. National studies have shown that less than 50% of teachers nationally would make a similar choice. In categorizing their involvement with their professional association, most indicated support for the goals of the association but limited active involvement; 77% indicated such a role in relation to MEA. Seven percent of the teachers indicated they did not support the goals of MEA. The surveyed teachers also indicated considerable freedom in the workplace; 64% of the responding teachers indicated a high amount of freedom to do their job as they saw fit. Only 15% of the surveyed teachers indicated their supervisors markedly limited their choices in relation to their work situation.

### Conclusions

- (1) The extended conceptualization of teachers' individual work efficacy was supported by the study's findings. Of the 317 teachers whose responses were analyzed in the study, 108 were classified as inefficacious since they indicated neither a strong belief concerning professional efficacy nor organizational efficacy. Eighty-four of the surveyed teachers were identified as being professionally efficacious since they indicated a strong belief concerning their level of professional efficacy, but a low belief concerning their level of organizational efficacy. Fifty-six of the surveyed teachers were labeled as being organizationally efficacious since they reported low efficacy beliefs regarding professional efficacy, but high efficacy beliefs regarding organizational efficacy. Finally, 69 of the surveyed teachers were recognized as being fully efficacious since they indicated strong beliefs about both their professional and their organizational efficacy.

This broadened conceptualization for understanding teachers' individual work efficacy is important since the recent research on self-efficacy (Bandura, 1988a; Wood and Bandura, 1989; Bandura et al., 1980) strongly supported the recognition of self-efficacy as a powerful construct shaping performance behavior of both leaders and subordinates in the bureaucratic work organization. Bandura (1988a) reported

the stronger the belief of an individual in his/her capabilities, the greater and more persistent will be his/her effort at tasks. Bandura also reported that level of efficacy strongly influences an individual's choice of work setting and activities, noting that people tend to avoid activities and situations they believe will exceed their capabilities. Bandura (1988a) stressed that individuals' perceptions of their capability can be shaped by both the social and leadership influences in the work environments surrounding the individual.

Research in leadership (Calder, 1977; Graen, 1976; Graen and Ginsburgh, 1977) has supported the idea that understanding the individual cognitive processes and beliefs of subordinates is important in order to fully understand how leader and follower activities work in organizations. Calder and Schurr (1981) noted that whether a leader is viewed as acting like an effective leader depends on what the subordinate's own theories and perceptions of leadership are. They argued that subordinates continually monitor their leader's behaviors and infer the causes of those behaviors to various situational and organizational factors. If the causes match the subordinate's beliefs about what an effective leader would do, the leadership is viewed as being successful. Consequently, beliefs about leadership would be influenced by one's belief about one's own capabilities.

- (2) The levels of efficacy of the individual teachers in this study -- both organizationally and professionally -- were not dependent on: (a) the gender of the teacher, (b) the years of experience the individual had as a teacher, or (c) the size of the school organization in which the teacher worked. Bandura (1986) has noted that individual self-efficacy arises from a gradual acquisition of complex cognitive, social, linguistic, and/or physical concepts/skills through experience. He has also stressed that self-efficacy is situation specific, i.e., that an individual's self-efficacy will vary as the situational and/or personal variables shift. This finding of the lack of any dependency among the fixed categories of gender, years of experience, and organizational size supports Bandura's (1986) conceptualization of the nature of self-efficacy as a uniquely individual process. Despite Maccoby and Jacklin's (1974) conclusion that females frequently have less confidence than males in relation to their abilities in a wide variety of activities, females appear not to have this lack of confidence in relation to the activities of teaching and working in a school workplace, regardless of their level of efficacy, since efficacy operates independently in relation to gender.
- (3) Levels of efficacy were found to influence how teachers perceived their principal's leader behaviors. In evaluating their principal's leader behaviors, organizationally efficacious and efficacious teachers tended to see their leader as more frequently performing the person-oriented leader

behaviors (Hoy and Miskel, 1982) (see Table 1) of the LBDQ-Form XII than did either inefficacious or professionally efficacious teachers. This finding of the study supports Bandura's (1986) idea that if people have high self-efficacy they will tend to be more positive in evaluating their environment. Wood and Bandura (1989) also noted that individuals who believe their efficacy is shaky in a situation will tend to dwell on inadequacies both in relation to themselves and their environments in order to cope with their situation.

The finding that levels of efficacy do affect perceptions of a leader's performance of person-oriented leader behaviors is also important to understanding the nature of leadership. Increasingly, the literature in leadership has found that the cognitive processes of both leaders and subordinates is critical for a complete understanding of how leadership operates in organizations (House and Baetz, 1979; Jago, 1982). Fiedler and Garcia (1987) maintained that a continuing problem of leadership study has been the need to blend the two antagonistic traditions out of which the concept of leadership has evolved in Western culture. Burns (1978) also articulated this duality of leadership approaches when he talked of transactional and transformational leaders. The LBDQ-Form XII also reflects this polarity with its listing of system-oriented behaviors focusing on tasks a supervisor must do in order to successfully maintain, manage, and protect the organization; and of person-oriented behaviors

focusing on tasks a supervisor must do in order to inspire, motivate, and influence the members of the organization to labor on behalf of organizational agendas (see Table 1). The finding that organizationally efficacious and efficacious subordinates tend to view their leader more positively in relation to person-oriented behaviors is significant in understanding this duality since leadership research has found that supervisory personnel respond with different behavior patterns depending on how the leader perceives an employee's competence (Lowin and Craig, 1968; Herold, 1977; Greene, 1975; Clark, 1972). Since leaders respond differently to subordinates they perceive to be at different levels of competence, and Bandura (1986) clearly identifies both verbal persuasion and modeling as information sources for the formation of self-efficacy beliefs, it can be concluded that leaders may be giving varying information cues which influence the formation of self-efficacy beliefs in subordinates. For subordinates perceived as competent, the leader could be responding in a more democratic, person-oriented way. For example, Farris and Finn (1969) found that leaders who believed their subordinates were high performers displayed greater supportiveness and generally were perceived by their subordinates as more sensitive and nonpunitive. Such behavior helps the subordinate feel more able and efficacious. Person-oriented leader behaviors, specifically Consideration, have been found to influence how satisfied subordinates are with their leader and how

motivated they are to perform their work (Halpin and Winer, 1957; Invik, 1986). Feeling more efficacious, the subordinate behaves in an active, positive fashion in the work situation. The leader observes this behavior and is supported in his/her conclusion so he/she reinforces and rewards the subordinate further for that competent, able behavior with greater support and less close supervision. Consequently, efficacious beliefs in the subordinate may foster person-oriented leader behaviors in the leader; person-oriented leader behaviors in the leader may foster efficacious beliefs in the subordinate.

- (4) Efficacious teachers tended to see their principals as more frequently performing Initiation of Structure behavior than did professionally efficacious teachers. Initiation of Structure is classified by Hoy and Miskel (1982) as a system-oriented behavior, and it is the only system-oriented behavior that levels of efficacy consistently influenced. The level of efficacy of a teacher influenced the tendency of that subordinate to perceive his/her leader's behavior as high in Initiation of Structure. Schriesheim et al. (1976), in analyzing the Initiation of Structure scale of the LBDQ-Form XII, concluded that the items described a leader who actively communicates, facilitates information sharing, and structures the work tasks which subordinates are prepared to do. This type of structuring leader behavior focuses strongly on communication and managing the work situation so all participants recognize what is expected. House

and Baetz (1979) reported that high occupational level employees (i.e., subordinates who have high knowledge about the work tasks they are being asked to perform) consistently reacted more favorably to leader Initiating Structure. Since an individual's perception of his/her efficacy is based on his/her beliefs concerning his/her capability to perform required work tasks successfully, it is logical that efficacious teachers (high in both professional and organizational efficacy) would tend to perceive their leaders as more able to perform initiating structure leader behavior. It can also be concluded that they would be more likely to respond favorably to such behavior from a leader. Schriesheim et al. (1976) noted that when supervisors of non-manufacturing employees (school principals, for example, supervise non-manufacturing employees) engaged in Initiation of Structure behavior with subordinates who had high knowledge about the work requirements, correlation with subordinate satisfaction was positive, although often the findings were marginally significant. Invik (1986) noted that research in Path-Goal Theory had shown that directive leader behavior positively influenced performance when task structure was low; the effect of directive behavior was minimal when task structure was high. Teaching is a complex activity which frequently has very low task structure.

- (5) Efficacy levels did not affect the willingness of a teacher to accept unilateral decision making from his/her principal. The PZAI asked

teachers to respond as to their frequency of compliance in 30 areas in which the principal might make unilateral decisions. Several comments were written by teachers in the margin of the survey document in relation to the PZAI. The comments reflected, in some cases, almost a resigned compliance to principal decision making: "He's the boss!" "If he got to be principal, I assume he knows his job." "I want to keep my job so I comply." "I don't always agree, but I know who's the boss." "It's not worth the hassle to fight the boss on most of these things!" Conversely, another category of comments reflected resistance to principal decision making in areas of student concerns or the classroom: "I run my classroom!" "He knows I know what I am doing!" "I do what I want in my area!" "What does he know about this?" No consistent pattern concerning efficacy level and type of comment was apparent. In tracing response patterns, the researcher found that resigned compliance comments tended to have mostly ones and twos circled for response on items; assertive comments tended to go with predominantly a four and five item response pattern. This lack of response pattern in relation to comments is supported by the findings. It can be concluded that efficacy level apparently does not influence the range of a teacher's zone of acceptance. Extremes in response was a frequent pattern. Kunz and Hoy (1976) in their study found that demographic variables like the teacher's age, years of experience, or desire to be an administrator did

not affect a teacher's zone of acceptance. Possibly levels of efficacy function like one of the above demographic variables in relation to zone of acceptance.

In light of the fact that efficacious teachers, by definition, have a high perception of their ability to do both the tasks of classroom teaching and the tasks of influencing superiors in the organization to gain their goals professionally, it would be expected that efficacious teachers might have narrower zones of acceptance than other efficacy groups since they would feel strong capability to make many of the PZAI decisions themselves. Kunz and Hoy (1976) found in their original study that Initiating Structure behavior by the leader was the most significant factor in relation to the teachers' professional zone of acceptance. The researchers stated, ". . . those principals who exhibited high Initiating Structure tended to have teachers with fairly wide zones of acceptance" (p. 59). Efficacious teachers in this study tended to see their principals as higher on Initiating Structure behavior. Kunz and Hoy noted in the discussion of their finding that it conflicted with the recommendations of many studies for effective leader behavior of middle managers. These leadership studies recommended emphasizing interpersonal aspects of leadership to a greater degree than directive, task-oriented behaviors in order to have more supportive employees. The finding supporting Initiating Structure, which Kunz and Hoy made, challenges this recommendation

since it found that teachers most willing to accept unilateral decision making had principals who were high on Initiating Structure behavior. Kunz and Hoy (1976) explained this contradiction by noting that Halpin identified a type of school culture which he labeled a Controlled Climate, which was characterized by a press for achievement at the expense of the need satisfaction of teachers. In this climate, teachers expected to be told personally just what to do and how to do it. Halpin (1966) noted, "Surprisingly, it seems that many school faculties actually respond well to this type of militant behavior and apparently do obtain . . . satisfaction within this type of climate" (p. 178). Kunz and Hoy (1976), in explaining their finding, concluded, "Perhaps the popular cultural stereotype of the teacher as deferent, highly organized, plodding, dependent, patient, and obsequious is not far off the mark . . ." (p. 60). Possibly both Halpin's and Kunz and Hoy's conclusions help explain why efficacious teachers in this study tended to not have any significantly narrower zones of acceptance than did any other efficacy level. It could be that the expectations of teachers in their work culture override efficacy beliefs in relation to willingness to accept unilateral decision making by the supervisor. In general, however, most teachers in this study, regardless of efficacy level, tended to have narrower zones of acceptance than Kunz and Hoy's teachers. (The mean score of Kunz and Hoy's teachers was in the 70s.)

- (6) When teachers were grouped according to levels of efficacy and gender, those who were organizationally efficacious or efficacious still tended to perceive their principals as more characterized by person-oriented leader behaviors and Initiating Structure behavior than did teachers who were either professionally efficacious or inefficacious. Gender of the subordinate did not appear to influence this response except on one scale -- Demand Reconciliation. This finding indicates that self-efficacy is a very individual-focused variable and, consequently, gender has limited impact on the formation of efficacy beliefs. Bandura (1986) noted that self-efficacy beliefs are formed by a complex three-way reciprocal interaction involving an individual's judgments concerning his/her behaviors, cognitions, and experiences with his/her external environments. Bandura stressed that levels of efficacy are individually established through this complex judgment process.

Organizationally efficacious male teachers did perceive their principals as somewhat higher in Demand Reconciliation behavior than did teachers, both male and female, at any other efficacy level. Efficacious male teachers, however, saw their principals as less able to exhibit Demand Reconciliation behavior than did efficacious female teachers. For this finding it is important to note that all but 37 of the principals in this study were male. Demand Reconciliation behavior evaluates the leader's ability to reconcile conflicting demands and reduce disorder in

the system -- a classic leader behavior. Male teachers who were efficacious organizationally would undoubtedly be close observers of their principal's leader approaches so they could read the principal correctly in order to get what they wanted organizationally. This close involvement with the principal could result in the principal seeing them in a positive way (at least organizationally). Leadership research shows leaders tend to treat employees perceived as competent more positively (Lowin and Craig, 1968). Gender research has found male subordinates are more likely to attribute the expert ability of male leaders as an important factor to their own individual performance (Rice et al., 1980; Garland and Price, 1977). Consequently, it is logical that organizationally efficacious males would see their leader as more able to perform a significant leader behavior which focuses on reducing disorder in the organization. Such behavior on the part of the leader would make people who focus on organizational agendas more able to be efficacious; hence the subordinate would tend to see the individual whom he believes has helped him be more efficacious as more able to do that behavior. With the introduction of professional efficacy which involves effectiveness with students, the male teachers' individual efficacy perceptions are probably perceived as being less dependent on the principal's behaviors and the principal's behaviors might actually be viewed as being in conflict with the teacher's ability to form a high sense of professional efficacy which is primarily

dependent on his successful interaction with students; consequently, the efficacious male teachers logically would perceive their principals as lower in Demand Reconciliation behavior than would either the efficacious female teachers or the organizationally efficacious male teachers.

- (7) Women teachers, regardless of their efficacy levels, saw their principals as being higher on the following leadership behaviors: (a) Tolerance of Uncertainty, (b) Representation, and (c) Superior Orientation. Two of these leader behavior scales involve system-oriented leader behaviors which revolve around the principal's ability to "represent" him/herself as a leader and to use that leadership role to maintain cordial relations with superiors in order to have influence. The other scale -- Tolerance of Uncertainty -- has been classified by Hoy and Miskel (1982) as a person-oriented leader behavior. However, it is a leader behavior that in Western culture tends to be very strongly associated with males -- the ability to cope with uncertainty without anxiety or upset. Culturally, males are viewed as strong, silent types who effectively manage the stress of uncertainty without the emotionality which females display. As Bass (1981) noted, "The female sex role stereotype labels women as less competent and warmer emotionally than men. The stereotype of the effective manager matches the masculine stereotype of competence and toughness -- lacking in warmth" (p. 495). Schein (1973, 1975) found that the stereotypical view of the typical leader and the typical woman is

viewed as incompatible. O'Leary (1974) and McClelland (1965) both found that women themselves tend to subscribe to the belief that women are quite different from and even opposite from men as a group in terms of desired traits for effective management. In brief, it is logical that women would tend on some leader behaviors to view a predominately male-dominated group (the principals evaluated in this study) as higher on those leader behaviors than would their male teaching counterparts.

Another contributing factor, which supports the finding that women teachers, regardless of efficacy levels, tended to see their principals as higher on (a) Representation, (b) Tolerance of Uncertainty, and (c) Superior Orientation is the research on organizational interactions and homogeneity. Bass (1960) found individuals are more likely to interact the more they value each other and the more they value the interaction between them. He also concluded that individuals interact more with those like themselves than those unlike themselves. Consequently, the male teachers, regardless of their efficacy levels, probably have more opportunity to interact closely with their male principal. They share the commonality of the same gender. This increased interaction with the principal could result in more direct and realistic perceptions of the leader in terms of understanding exactly how well the principal does interact with his superiors or how well he does tolerate uncertain conditions. Women, with less interaction, may be more likely to attribute

to their leader what they desire to see in a leader or to what they have been socialized to believe a leader should do -- particularly a male leader -- rather than actually perceive the leader in terms of what is. Consequently, it is not inexplicable that women teachers, regardless of their efficacy levels, perceived their principals as higher on these leader behaviors.

- (8) Women teachers, regardless of efficacy level, had the narrowest zones of professional acceptance. In other words, women teachers surveyed in this study were least willing to accept unilateral decision making by the principal. This finding appears to contradict much of what is popularly believed about the willingness of women to accept direction and to be submissive to a superior's directive. It also is opposite from the finding Kunz and Hoy (1976) found in their original investigation of the PZAI. Kunz and Hoy noted, "Females were significantly more accepting of directives than males" (p. 60).

This opposite result in relation to popularly held stereotypes concerning women's willingness to comply and the Kunz and Hoy finding concerning the PZAI may be explained via a close examination of a recent gender study. Gilligan (1982) has suggested that women do have different interpretations of concepts like *justice* and *correctness* in judgment situations. In addition, theorists studying both the female experience in teaching and the history of teaching (Herbst, 1989; Grumet,

1988) have shown how women were recruited to teaching with claims that teaching was *the* natural occupation for women since it was closely linked to the nurturing values of the female vision of life. However, when the bureaucratization of the work of teaching occurred, according to Herbst (1989), the result was "the betrayal of the teacher" since bureaucratization resulted in organizational needs frequently being prioritized over the professional needs of the classroom teacher. Research studies (Boston Women's Teachers' Group, 1983) and autobiographical statements of women teachers (Dombart, 1985) have also established the sense of anger and powerlessness many women teachers feel in relation to male principals (who frequently have limited classroom teaching experience) and their (the principal's) attempts to work in an evaluative fashion with classroom and student issues. Grumet (1988) used the metaphor of "bitter milk" to capture the deep sense of anger women teachers, in particular, have felt when they saw the nurturing values and concerns they regarded as critical in relation to effective teaching of students set aside for the bureaucratic and accountability concerns of the organization. In previous decades women teachers had social and cultural pressure to surrender to the stereotypical demands placed on them with respect to male authority figures. However, with the general increase of an anti-authority stance in the overall society since the early 1970s and, especially, with the increased empowerment of women in the

general society, the pressure to make the socially correct response is less pressing for most women teachers. In addition, it is important to remember that the makeup of teachers in this study is weighted toward teachers with 10 or more years of teaching experience. The age and experience level of the teachers in the study combined with the above body of knowledge on the female experience in teaching may logically result in an increased willingness by women teachers to "tell it like it is" -- at least from their perspective.

The information concerning women and teaching has mostly been accumulated since Kunz and Hoy's (1976) study. In their conclusions of the study, however, they did hypothesize that a shift might occur regarding their finding on the woman teacher's zone of acceptance, since they concluded, ". . . as the feminist movement gains momentum and begins to make inroads into the teaching force, the professional zone of acceptance of the female teacher may quickly begin to shrink" (p. 61). From this study, it can be concluded not only has it shrunk, it has reversed. This shift may have been strongly assisted by the 1980s reform movement. With the advent of second-wave reform agendas, the findings about the female experience in teaching and the validity of teachers having a greater voice in the larger school organization were widely popularized. As a result of all these changes, it is logical that women teachers in this study have less willingness than their male counterparts

to accept unilateral decision making by the principal -- especially if that decision making is connected with classroom or student issues.

In examining the mean scores of women teachers on the PZAI in relation to efficacy levels, an irregular pattern, which was not statistically significant, was noted. Women teachers who were least willing to accept directives from the principal were women in the professionally efficacious group (116.51). Conversely, professionally efficacious male teachers had one of the widest zones of acceptance among these respondents (108.67). A close item analysis of the PZAI revealed that 20 of the 30 items on the instrument examined student-focused issues or classroom-focused issues. Both of these sets of issues would be strong areas of concern to a professionally efficacious teacher since his/her judgment of individual efficacy would be, at least in part, influenced by such principal decisions. With individual efficacy perceptions being influenced by such issues, it is probable that women teachers would be quite unwilling to surrender such decisions to a principal -- especially in light of their value systems in regard to the nurturing aspects of teaching (as identified by Grumet, 1988) combined with the experiences teachers have had in the bureaucratized school workplace (Herbst, 1989). Male teachers, despite their professional efficaciousness, could have different orientations toward understanding their role in the bureaucratized school work place, both in relation to the principal and the student, which could result in

their perceptions that principal unilateral decision making is more acceptable. Male teachers, for example, do not carry the burden of the value system committed to nurturing and relational orientations (a burden women carry because of their socialization for their cultural role and which some researchers are suggesting may also be partially biologically-based) (Fausto-Sterling, 1985). Organizational researchers (Kanter, 1977; Henning and Jardin, 1977) both have established that women have different perceptions of their organizational experiences than men. It is, therefore, possible that the professional efficacious male teachers in this study have a different understanding of the role a principal plays in relation to their own sense of efficacy. Professionally efficacious male teachers may see the principal as of little importance in the formation of their sense of efficacy since professional efficacy is primarily based on student feedback. The male teacher may be realistic enough about the organization to know that no matter what the principal may decide in regard to students, the teacher can close his/her door and do what he/she thinks is best with students to a large degree. If so, the male teacher may be operating in the classic isolated classroom teacher fashion as described by Fuller et al. (1982); therefore, he would be much more willing to permit unilateral decision making by the principal than his female peer.

- (9) When teachers were grouped according to years of experience and levels of efficacy, those teachers who were organizationally efficacious or efficacious still tended to perceive their principals as higher on person-oriented leader behaviors and Initiating Structure behavior than did teachers who were either professionally efficacious or inefficacious. The individual sense of efficacy a teacher held did not appear to be influenced by the years of experience a teacher had in teaching. This finding indicates that self-efficacy is, as theorized by Bandura (1977b), an individual-focused variable; consequently, years of experience appears to have limited impact on the formation of efficacy beliefs. Bandura (1986) noted that self-efficacy beliefs are formed by a complex three-way reciprocal interaction involving an individual's judgments concerning his/her behaviors, cognitions, and experiences with his/her external environments. Bandura stressed that levels of efficacy are individually established through this complex judgment process. This study supports such a situation-specific, individualized view of how self-efficacy judgments are formed. However, Bandura (1981) also stated that an individual's behaviors, cognitions, and life experiences would increase an individual's base of knowledge for making judgments about one's capabilities. Consequently, changes would occur in that individual's efficacy beliefs. Due to limitations inherent in the design of this study, however, it was not possible to examine if a teacher's development in

his/her work setting over a period of time did affect his/her efficacy level, so Bandura's developmental concept of self-efficacy was not examined in this study. Hence, to definitely conclude that years of teaching experience does not influence efficacy levels is a too-ambitious conclusion.

In examining the means of the respondents in terms of their level of efficacy and years-of-experience group, it can be concluded that responses of teachers who had taught between six and ten years were frequently quite different from teachers who had one to five years of experience, and were moderately different from teachers with eleven or more years of experience. These differences were not found to be statistically significant since the number of teachers in several of the years of experience categories were quite small because many of the teachers in the study were in the 11 to 20 years of experience category due to the nature of the Montana teaching population. However, teachers in the category of six to ten years of experience tended to see their principals as less able at performing person-oriented leader behaviors than did teachers with one to five years of experience. The six to ten year veteran of teaching, however, tended to see his/her principal as higher on Initiation of Structure behavior than did the one to five year teacher. This differential pattern of perception for the six to ten year veteran of teaching is somewhat supported in the literature. Schlecty and Vance (1983) indicated that the fifth through tenth years was one of

the primary decision making periods for teachers concerning whether they intended to remain in the profession. Hence, teachers in this category would possibly be experiencing definite conflicts with their idea of what teaching is compared to what their experiences are telling them teaching is. Lortie (1975) concluded that differences in work orientation concerning the purpose and the tasks of teaching are apparent between the beginner and a veteran of eight to ten years of teaching.

Years of experience was found to be a significant factor in teachers' perception of the principal's tendency to apply pressure for productive output. While level of efficacy of the teacher did not influence the perception of a principal's ability to press for Production Emphasis, teachers who had one to five years of experience saw the principal as being more production-oriented in most cases than did teachers at other levels of experience. Overall, however, it is important to note that across efficacy levels and years of experience, all categories of teachers (with the exception of an efficacious teacher with one to five years of experience) tended to award their principals lower means in relation to Production Emphasis than on the other leader behavior scales. This perception of lack of Production Emphasis on the part of the principal in public schools is supported by Stogdill's (1974) conclusion about the leadership approach of educational administrators: ". . . a passive commitment exists throughout the profession to a laissez faire style of leadership"

(p. 98). Consequently, the finding of this study concerning the difference between the perceptions of one to five year teaching veterans and six to ten year veterans in regard to a principal's ability to do Production Emphasis leader behavior may be understood by recognizing that the more experienced teacher could have a more accurate understanding of how the principal operates in this area, which accounts for the closer match of the means of teachers in the eleven-plus years of experience categories with the means of the six to ten year veterans.

Another explanation of the difference between the perceptions of one to five year teaching veterans and teachers with more experience may arise from simple organization practices. Many of the teachers in the one to five year category would be nontenured. Principals tend to more actively supervise those teachers. Consequently, the mere fact the principal may be more frequently in contact with the one to five year teacher in regard to his/her work may result in that teacher perceiving the principal as more production-oriented.

- (10) Regardless of the efficacy level of the teacher, years of experience did not influence the range of the zone of acceptance of the teacher. In their original study of PZAI, Kunz and Hoy (1976) concluded, ". . . tenure and years of experience were not significantly related to teachers' professional zone of acceptance" (p. 60). The finding of this study supports the conclusion made by Kunz and Hoy, since years of

experience did not impact the range of the zone of acceptance of teachers surveyed.

The level of performance and organizational efficacy of a teacher also was not found to significantly influence the range of the zone of acceptance of that teacher. However, a close examination of teachers' scores on the PZAI reveals that teachers with six to ten years of experience who were organizationally efficacious tended to have a wider zone of acceptance than most other categories of teachers. Consequently, a firm conclusion as to the role that level of efficacy plays in combination with years of experience in relation to the range of the zone of acceptance of teachers cannot entirely be made. The issue concerning the developmental nature of efficacy as stated by Bandura (1981), and the inability to adequately examine that aspect of self-efficacy because of the limitations inherent in the design of this study, results in a guardedly cautious conclusion about whether levels of efficacy would influence the range of a teacher's zone of acceptance.

- (11) When teachers were grouped according to levels of efficacy and organizational size, those who were organizationally efficacious or efficacious still tended to perceive their principals as more able to perform person-oriented leader behaviors and to provide Initiating Structure behavior than did teachers who were either professionally efficacious or inefficacious. Size of organization did not appear to influence this response

except on one leader behavior scale -- Role Assumption -- where a pattern of interaction was shown between levels of efficacy and organizational size. This finding supports, as previously discussed, the writings of Bandura (1986, 1977b) about the nature of self-efficacy. An individual's sense of efficacy and how he/she perceives the leader does not appear to be influenced by the size of the organization in which he/she works.

The conclusion does not, however, receive support from the research findings in the literature of leadership. Miles and Petty (1971) investigated the relationship between organizational size and the degree of bureaucratization and concluded a strong positive relationship existed, i.e., that formalization, routinization, and standardization were higher in large organizations. They also found that subordinates in highly bureaucratized organizations tended to be less satisfied than subordinates who worked in less bureaucratized work settings. In general, organizational size has been found to impact perceptions of leadership (Jago, 1982). This study's use of subjects from a state which is predominately rural and has no truly urban districts limits the range of the concept of organizational size which was possible to be investigated. This limitation may explain why organizational size appeared to have so limited a consequence in relation to perceptions

of leader behavior, regardless of the level of efficacy of the teacher respondent.

Organizational size was significant in shaping teachers' views of their principal's ability to give followers scope to exercise their own initiative in regard to decisions and action. Teachers who worked in Group L size schools who were professionally efficacious, organizationally efficacious, and efficacious all perceived their principals as more readily exhibiting Tolerance of Freedom leader behavior than did teachers at the same levels of efficacy in Group M schools. Since Miles and Petty (1971) have shown that a positive relationship exists between the degree of standardization of work and the size of the organization, the view that a mid-level manager, such as a principal, was more prone to exhibit Tolerance of Freedom leader behavior may be due to the perception of teachers that the standardization of their work is not due to the principal but to other superiors in the organization. In fact, since the work of teaching involves constant decision making and is extremely difficult to standardize, it may well be that the principal, who is the closest organizational supervisor, may actually be viewed as an ally in navigating around the attempts of the central office to standardize the teacher's work; hence the high mean scores for Group L teachers on this leader behavior scale.

On the leader scale of Role Assumption, an interaction pattern was found between efficacy level and organizational size. Group M professionally efficacious teachers perceived their principals as higher on this leader behavior than did Group L professionally efficacious teachers. However, at the organizationally efficacious level, Group L teachers perceived their leader as more prone to show Role Assumption leader behavior than did organizationally efficacious Group M teachers. Group L efficacious teachers tended to be slightly lower in the score they gave their principals than the efficacious Group M teachers. Organizational size and levels of efficacy interacted in relation to how teachers perceived their principal actively exercising the leadership role within their organizations.

To explain this interaction pattern, it is important to consider the primary source of a professionally efficacious teacher's sense of work efficacy -- the student. Fuller et al. (1982) hypothesized that professionally efficacious teachers might actively seek to withdraw from the organization and concentrate on the classroom as much as he/she would be permitted to do so in order to develop their sense of work efficacy in that area. Consequently, professionally efficacious teachers in Group L organizations might be actively working to limit their interactions with the principal, and a principal managing a fairly large system which would make multiple demands on his/her time might do little to interact

with such a teacher since the teacher, due to his/her professional efficaciousness, would probably be experiencing little difficulty in the primary work of teaching. (Ashton and Webb, 1986, clearly established that teachers with strong classroom efficacy got academic achievement from the majority of their students.) Consequently, the principal of a Group L professionally efficacious teacher might be a fairly remote, seldomly-seen individual. The professionally efficacious Group M teacher might have a considerably different organizational experience. The principal of a Group M school would be managing a smaller staff and, consequently, would probably have more time available. The Group M teacher, therefore, despite his/her best efforts to keep out of the principal's orbit, would probably have more frequent direct interactions with the principal. Being professionally efficacious and focused on students rather than the organization, the teacher would probably not seek these interactions (Fuller et al., 1982); the interactions would probably occur because of the principal's initiative. Consequently, this assertive principal action would probably be tolerated and perceived by the professionally efficacious teacher as a prerogative of his/her leadership role. In addition, because of the size of the organization, the principal would also probably need the teacher to perform a wider range of tasks; hence the tendency of Group M

professionally efficacious teachers to view their principals as more readily exercising the leadership role.

To explain the reversal of response among organizationally efficacious teachers in Group M and Group L organizations, one must again consider the primary work goal of an organizationally efficacious teacher. As defined in this study, organizationally efficacious teachers are interested in developing influence with their superiors. In order to accomplish that goal, an organizationally efficacious teacher would do the reverse of a professionally efficacious teacher in relation to his/her principal. The organizationally efficacious teacher would actively seek out the principal for interaction and would invest considerable effort in watching and evaluating the principal's actions and decisions. In a Group M organization, access to accomplish such a goal may be quite available. It may be that a Group M organizationally efficacious teacher could get so intimate with the principal as to penetrate the "mask of leadership" to the point that many of the behaviors that a more remote teacher might have attributed to exercising the prerogatives of leadership may be understood more accurately. Hence, the Group M teacher would see his/her principal as less prone to exercise the leadership role. Indeed, in a Group M organization the principal may have much less need to exercise the type of directive and persuasive leader behaviors which are classically considered to be "leader" actions. The

Group L organizationally efficacious teacher may have an equally strong desire to get close to the principal, but due to the size of the organization and the interaction patterns of more complex organizations (like tends to associate with like) (Bass, 1960), the Group L organizationally efficacious teacher would have less opportunity to do so. Consequently, the organizationally efficacious teacher in Group L would probably be gaining his/her perceptions of the principal from more formal meetings where the principal would probably be more directly engaged in "acting like a leader." The Group L teachers would, therefore, be more likely to see their principal as assuming the role of leadership more readily than the Group M teachers.

- (12) Regardless of the efficacy level of a teacher, organizational size did not influence the range of the zone of acceptance of the teacher. In their original study using the PZAI, Kunz and Hoy (1976) concluded, "Again, the size of the professional staff, size of school, and size of the community were not related to the acceptance scores" (p. 60). The finding of this study supports the conclusion drawn by Kunz and Hoy.

#### Implications of Teachers' Sense of Efficacy in Relation to Reform Efforts

Organizations are interactive systems in which each member holds some degree of power. Pfeffer (1981) has concluded, ". . . the task of management is to provide explanations, rationalizations, and legitimization for

the activities undertaken by the organization" (p. 4). Kotter (1990) concluded, "Leadership . . . is about coping with change" (p. 104). Any attempt to change any part of the organization will result, either immediately or eventually, in changes in individual members' ideas about themselves, their leaders, and, ultimately, the entire organization (Sims et al., 1986). The role of the leader is to successfully understand and manage these cognitive processes; as Weick (1979) concluded, ". . . an organization is essentially a body of thought" (p. 53). The beliefs of the individual member about his/her role, what he/she believes concerning the leader's role, and what he/she believes about the organization's goals all influence the effectiveness of the organization. Depending on how efficacious a subordinate feels in relation to his/her work, the subordinate will function differently in that organization, and how efficacious an individual feels in his/her organization is influenced by how a leader works with his/her subordinates.

Bandura (1986) noted that level of self-efficacy strongly influenced an individual's choice of work/life settings and his/her choices in regard to work activities, the effort he/she expended on activities, and the initiation of and level of coping behaviors he/she adopted when he/she was confronted with obstacles in the work environment. Individuals with low self-efficacy, Bandura noted, will tend to avoid activities and situations which they believe will exceed their capabilities. Cervone and Peake (1986) and Bandura and Cervone (1986) each concluded that individuals with a strong belief in their efficacy will

tend to exert greater effort to master difficult challenges and will persist longer in the face of obstacles than will individuals with low work efficacy. They also concluded that as individuals perceive themselves as being more capable, they will be more willing to undertake challenging activities and pick complex environments. Self-efficacy research also supports the idea that self-efficacy perceptions can be shaped by both the social and leadership influences in the work environments surrounding the individual (Bandura, 1988). Consequently, it can be concluded that the level of efficacy an individual holds in regard to his/her work role and tasks will strongly influence his/her receptivity to any larger change agenda in relation to the organization. To some degree, empowerment is a vision the subordinate has of his/her own work role.

Cuban (1988a) has established the sorry record of reform in education, noting that even while education continually embarks on reform efforts, those efforts have been largely meaningless since "schooling appears to be pretty much the same as it always has been" (p. 341). Ravitch (1983) noted that throughout 20th century reform efforts, teachers have tended to be treated as so many pieces of movable furniture. Roland Barth (1986) has spoken of the "primitive quality of human relationships" in the school organization, observing, "School boards infantilize superintendents; superintendents, principals; principals, teachers; and teachers, children" (p. 76). Historically, as Ravitch (1983) has noted, reform policymakers have failed to see teachers

as possessing any significant influence in relation to larger schooling agendas. Those agendas have largely been the preserve of the education administrator. In short, policymakers have viewed the teacher in a simplistic "receiver" role in the organization; hence, the knowledge education currently possesses about how teachers view their work roles and work situations is largely based on hearsay and supposition.

Cuban's fundamental puzzle of a-reform-that-never-reforms may be influenced by the failure of educational policymakers to view their organizations as interactive systems in which the subordinates, the teachers, have multiple work agendas and goals and that these individual work agendas and goals have considerable influence over the impact of change policy. Without any further empowerment of teachers (as empowerment is currently discussed in second-wave reform agendas), today's teachers, because of their ideas and perceptions concerning themselves and their work roles, possess considerable power to frustrate or to support reform agendas. If, for example, a teacher holds a low sense of professional efficacy, he/she may choose to retreat or surrender when confronted with adversity in the classroom (Bandura and Schunk, 1981). Ashton and Webb (1986) noted that teachers with a low sense of efficacy also spent an inordinate amount of work time diagnosing and attributing their failures to external sources rather than focusing on the tasks of the organization. Conversely, teachers with a high sense of work efficacy put forth greater work effort and tended to be more

open to change (Guskey, 1988). The conclusion of Eisenhart et al. (1988) concerning the desire of teachers to focus on in-classroom reform agendas instead of looking at broader reform measures (such as those advocated in the second-wave reform agendas) may be a result of the differing cognitive judgments each teacher is making concerning their capabilities.

Of the 317 teachers in this study, 34% were categorized as inefficacious, with 26% being professionally efficacious. Both inefficacious teachers and professionally efficacious teachers tended to cluster together in how they viewed their principal. Possibly, these two groups might also view other aspects of the organization similarly. By what is currently known from research in self-efficacy, it can be concluded these two groups of teachers would prefer the status quo to change, or, at the very least, would prefer that the reforms made should focus on the classroom and students. Increased understanding of how teachers' individual efficacy levels develop in school work settings and how they influence organizational agendas has value. Such understanding might result in the formation of more effective reform policy measures which would, eventually, result in more meaningful reform in the schools.

#### Recommendations for Practice

- (1) Both teachers and administrators should acquire increased understanding of the role their beliefs concerning their work roles play in their work

lives. In preservice training of teachers and administrators, it would be valuable for them to have a cognitive understanding of the concept of self-efficacy. It would also be valuable for each preservice teacher and administrator to develop a greater understanding of his/her own efficacy level in regard to both the professional work of teaching (professional efficacy) and the organizational use of influence (organizational efficacy). Ashton and Webb (1986) have clearly established that a teacher's sense of teaching efficacy influences the achievement levels of that teacher's students. Bandura (1982), Bandura et al. (1980), and Wood and Bandura (1989) have established a significant correlation between high self-efficacy beliefs in relation to work tasks and improved performance.

- (2) A goal of both preservice and in-service teaching and administrative programs should be to promote a high sense of efficacy (as defined by this study), since efficacy research has established that the stronger an individual's efficacy belief, the greater and more persistent are their efforts (Bandura, 1988; Wood and Bandura, 1989).
- (3) This study found that efficacious and organizationally efficacious teachers clustered together in perceiving their leaders as more person-oriented in leadership than did teachers who were inefficacious or professionally efficacious. In light of the findings in leadership study concerning the different patterns of supervisory response to employees perceived as competent (Lowin and Craig, 1968; Herold, 1977), it is

important that teachers feel organizationally efficacious in relation to their immediate superior since supervisors tend to respond more democratically, tend to give greater support and less supervision to employees they view as competent. Teachers who have increased understanding of the organizational role of teaching (i.e., the importance of understanding organizational concerns) will, according to efficacy research (Bandura, 1986), be more prone to project a competent image. Consequently, both teacher training programs and staff development programs should consider curriculums which would give the learner increased understanding of the school organization beyond the immediate classroom so as to assist the preservice or in-service teacher to a high sense of efficacy in relation to managing the organization to gain their professional goals.

- (4) Administrators should have increased awareness of how varying efficacy levels among their teachers influences the teacher's perception of his/her principal's leader behaviors. Weick (1979) noted that the primary task of managerial work is managing myths, beliefs, symbols, and images. Increased awareness of how varying efficacy levels among his/her subordinates influences their perceptions of the leader would aid the leader in doing the tasks of management as defined by Weick (1979). Kotter (1990) stressed a main task of leadership is appropriately "aligning people" so they can support the "vision" of the organization's future.

Understanding the range of efficacy perceptions in his/her subordinates would definitely aid a leader in his/her attempts to do this task.

- (5) Administrators should be aware of the shift in women teachers in regard to their professional zones of acceptance. Due to socialization and cultural stereotypes (Maccoby and Jacklin, 1974), a tendency may exist on the part of principals to believe their women teachers may be more willing to accept unilateral decision making than men. The finding in this study indicated professionally efficacious women teachers have a narrower zone of acceptance than male teachers who are professionally efficacious.

#### Recommendations for Further Research

While this study established the existence of the four categories of teachers in relation to the defined efficacy levels, like most survey research, it has tended to generate many more questions than it has answered. Therefore, below are several suggestions for further research.

- (1) Since the concept of organizational efficacy is the critical factor in the different perceptions of the leader by the organizational efficacious and efficacious teachers in this study, further research is warranted in relation to the idea of organizational efficacy. What is the nature of organizational efficacy? Does it incorporate more components than just influence

in regard to superiors? How is organizational efficacy acquired by teachers?

- (2) Since efficacy level has been found to influence perceptions of the immediate supervisor but not to influence a teacher's zone of acceptance, further research is warranted to investigate if efficacy levels influence other variables; for example, receptivity to reform measures, perception of school climate, perceptions of decisions, etc.
- (3) Since the finding concerning the PZAI and gender contradicts the earlier finding of Kunz and Hoy (1976), further investigation concerning the PZAI and gender should be done to see if this study is unique or will be supported by additional investigations.
- (4) Further investigation concerning the interrelationships of efficacy levels is warranted. For example, if an efficacious teacher works for a principal who is efficacious, would the result be increased efficacy for both teacher and principal? Therefore, research should be done looking at principal efficacy levels.
- (5) Despite Bandura's theory that efficacy is a developmentally influenced construct, this study did not find years of experience to be an influence over efficacy level of a teacher. However, the design used in this study limited the ability of the researcher to investigate years of experience from a developmental perspective. Further research is warranted to

investigate the developmental aspect of efficacy. Does a teacher's sense of efficacy shift over time? If it does shift, how?

- (6) Further research is suggested in order to investigate the relationship between efficacy level and leadership. Sergiovanni (1990), Kotter (1990), and Bass (1985) have suggested that leadership, as opposed to management, involves building followers' esteem, achievement, competence, autonomy, and self-actualization needs. In the school setting, what behaviors are required by the leader to move a teacher across the efficacy categories to an efficacious state in order to accomplish the building of competence? How must a leader shift his/her behavior in order to lead most effectively a staff dominated by one efficacy group or another?
- (7) Further research is suggested regarding the organizational size issue in this study. Since the Montana system does not contain truly urban districts, the possibility that organizational size could influence efficacy levels was not adequately examined in this study. Consequently, it would be valuable to investigate the issue of efficacy and organizational size further.

REFERENCES

## REFERENCES

- Adler, Mortimer Jerome. The Paideia Proposal. New York: Macmillan Co., 1982.
- Andrews, Richard L., Roger Soder, and Dan Jacoby. Principal Roles, Other In-School Variables, and Academic Achievement by Ethnicity and SES. Paper presented at meeting of the American Educational Research Association, San Francisco, CA, 1986. ERIC ED 268 664.
- Argyris, Chris. Increasing Leadership Effectiveness. New York: John Wiley and Sons, 1976.
- Aristotle. Politics. Trans. Benjamin Jowett. Oxford: Clarendon Press, 1931.
- Armor, David, Patrick Conry-Oseguera, Matthew Cox, Nathan King, Leonard McDonnell, Anthony Pascal, Edward Pauly, and George Cellman. Analysis of the School Preferred Reading Program in Selected Los Angeles Minority Schools. Report No. R-2007-LAUSD. Santa Monica, CA: The Rand Corp., 1976. ERIC ED 130 243.
- Ashton, Patricia. "Motivation and the Teacher's Sense of Efficacy." In Research on Motivation in Education. Eds. Carole and Russell Ames. San Diego, CA: Academic Press, 1985. 141-171.
- Ashton, Patricia T., and Rodman B. Webb. Making a Difference: Teachers' Sense of Efficacy and Student Achievement. New York: Longman, 1986.
- Ashton, Patricia, Rodman Webb, and Carol Duda. A Study of Teachers' Sense of Efficacy. Final Report, Executive Summary. Gainesville, FL: University of Florida, 1983. ERIC ED 231 834 and 231 835.
- Bacharach, Samuel B., Scott C. Bauer, and Joseph B. Shedd. "The Work Environment and School Reform." Teachers College Record 88 (Winter 1986): 241-256.
- Bales, Robert F. "In Conference." Harvard Business Review 32 (1954): 41-49.

- Bales, Robert F. "Task Roles and Social Roles in Problem-Solving Groups." In Readings in Social Psychology. Eds. Eleanor E. Maccoby, Theodore M. Newcomb, and Eugene L. Hartley. New York: Holt, Rinehart and Winston, Inc., 1958.
- Bandura, Albert. "Organizational Applications of Social Cognitive Theory." Australian Journal of Management 13 (1988a): 137-164.
- Bandura, Albert. "Reflections on Self-Efficacy." Advances in Behavioral Research and Therapy 1 (1978): 237-269.
- Bandura, Albert. "Self-Efficacy Mechanism in Human Agency." American Psychologist 37 (February 1982): 122-147.
- Bandura, Albert. "Self-Efficacy: Toward a Unifying Theory of Behavioral Change." Psychological Review 84 (1977a): 191-215.
- Bandura, Albert. "Self-Referent Thought: A Developmental Analysis of Self-Efficacy." In Social Cognitive Development Frontiers and Possible Futures. Eds. John H. Flavel and Lee Ross. Cambridge, MA: Cambridge University Press, 1981. 200-239.
- Bandura, Albert. "Self-Regulation of Motivation and Action Through Goal Systems." In Cognitive Perspectives on Emotion and Motivation. Eds. Vernon Hamilton, Gordon H. Bower, and Nico H. Frijda. Dordrecht, The Netherlands: Kluwer Academic Publishers, 1988b. 37-61.
- Bandura, Albert. Social Foundations of Thought and Action: A Social-Cognitive View. Englewood Cliffs, NJ: Prentice-Hall, 1986.
- Bandura, Albert. Social Learning Theory. Englewood Cliffs, NJ: Prentice-Hall, 1977b.
- Bandura, Albert, and Nancy E. Adams. "Analysis of Self-Efficacy Theory of Behavioral Change." Cognitive Therapy and Research 1 (1977): 287-310.
- Bandura, Albert, Nancy E. Adams, and Janice Beyer. "Cognitive Processes Mediating Behavioral Change." Journal of Personality and Social Psychology 35 (1977): 124-139.
- Bandura, Albert, Nancy E. Adams, Arthur B. Hardy, and Gary N. Howells. "Tests of the Generality of Self-Efficacy Theory." Cognitive Therapy and Research 4 (1980): 39-66.

- Bandura, Albert, and Daniel Cervone. "Differential Engagement of Self-Reactive Influences in Cognitive Motivation." Organizational Behavior and Human Decision Processes 38 (August 1986): 92-113.
- Bandura, Albert, and Daniel Cervone. "Self-Evaluative and Self-Efficacy Mechanisms Governing the Motivational Effects of Goal Systems." Journal of Personality and Social Psychology 45 (November 1983): 1017-1028.
- Bandura, Albert, and Dale H. Schunk. "Cultivating Competence, Self-Efficacy, and Intrinsic Interest Through Proximal Self-Motivation." Journal of Personality and Social Psychology 41 (1981): 586-598.
- Barling, Julian, and Russell Beattie. "Self-Efficacy Beliefs and Sales Performance." Journal of Organizational Behavior Management 5 (Spring 1983): 41-51.
- Barnard, Chester I. The Functions of the Executive. Cambridge, MA: Harvard University Press, 1968.
- Barr, Rebecca, Robert Dreeben, and Nongklai Wiratchai. How Schools Work. Chicago: University of Chicago Press, 1983.
- Barth, Roland S. "The Principal and the Profession of Teaching." Elementary School Journal 86 (March 1986): 471-492.
- Bass, Bernard. Leadership and Performance: Beyond Expectations. New York: Free Press, 1985.
- Bass, Bernard M. Leadership, Psychology, and Organizational Behavior. New York: Harper, 1960.
- Bass, Bernard M. Stogdill's Handbook of Leadership. New York: The Free Press, 1981.
- Beck, Melinda, and Karen Springen. "A School System Near Meltdown." Newsweek, 4 July 1988: 56-57.
- Belenky, Mary Field, Blythe McVicker Clincy, Nancy Rule Goldberger, and Jill Mattuck Tarule. Women's Way of Knowing: Development of Self, Voice and Mind. New York: Basic Books, Inc., 1986.

- Bennett, William J. "Is the Education Reform Movement Being Hijacked?" Speech delivered to the Education Writers Association, San Francisco, CA, 5 April 1987.
- Bennis, Warren, and Burt Nanus. Leaders. New York: Harper and Row, 1985.
- Berman, Paul, Milbrey McLaughlin, George Bass, Edward Pauly, and George Cellman. Factors Affecting Implementation and Continuation. Vol. 7 of Federal Programs Supporting Educational Change. Santa Monica, CA: The Rand Corp., 1977. ERIC ED 140 432.
- Betz, Nadine E., and George Hackett. "Applications of Self-Efficacy Theory to Understanding Career Choice Behavior." Journal of Social and Clinical Psychology 4 (April 1986): 270-289.
- Bishop, James M. "Organizational Influences on the Work Orientations of Elementary Teachers." Sociology of Work and Occupations 4 (May 1977): 171-208.
- Blake, Robert R. and Jane S. Mouton. The Managerial Grid III. Houston, TX: Gulf Publishing Co., 1985.
- Blase, Joseph J. "The Politics of Favoritism: A Qualitative Analysis of the Teachers' Perspective." Educational Administration Quarterly, 24 (May 1988): 152-177.
- Block, Peter. The Empowered Manager: Positive Political Skills at Work. San Francisco, CA: Jossey-Bass, 1987.
- Borg, Walter R., and Meredith D. Gall. Educational Research. 4th ed. New York: Longman, 1983.
- Boston Women's Teachers' Group. "Teaching: An Imperilled 'Profession.'" In Handbook of Teaching and Policy. Eds. Lee S. Shulman and Gary Sykes. New York: Longman, 1983. 261-298.
- Boyer, Ernest L., and Carnegie Foundation for the Advancement of Teaching. High School: A Report on Secondary Education in America. New York: Harper and Row, 1983.
- Bradburn, Norman M. "Response Effects." In Handbook for Survey Research. Eds. Peter Rossi, James D. Wright, Andy B. Anderson. New York: Academic Press, 1983. 289-318.

- Brief, Arthur P., and Ramon J. Aldag. "The 'Self' in Work Organizations: A Conceptual Review." Academy of Management Review 6 (1981): 75-88.
- Brookover, William. Schools Can Make a Difference. East Lansing, MI: Michigan State University, 1977.
- Brophy, Jere. "Research on Teacher Effects: Uses and Abuses." Elementary School Journal 89 (September 1988): 3-21.
- Brown, Alan F. "Reactions to Leadership." Educational Administration Quarterly 3 (1967): 62-73.
- Burlingame, Merrill. "The Great Man Approach to the Study of American Educational Leadership." In Leadership: The Science and the Art Today. Eds. Luvern Cunningham and William J. Gephart. Itasca, IL: Peacock, 1973. 143-161.
- Burns, James MacGregor. Leadership. New York: Harper and Row, 1978.
- Calder, Bobby. "An Attribution Theory of Leadership." In New Directions in Organizational Behavior. Eds. Barry Staw and Gerald Salancik. Chicago: St. Clair Press, 1977. 32-59.
- Calder, Bobby J., and Paul H. Schurr. "Attitudinal Processes in Organizations." In Research in Organizations, Vol. 3. Eds. L.L. Cummings and Barry M. Staw. Greenwich, CT: JAI Press, 1981. 283-302.
- Callahan, Raymond E. Education and the Cult of Efficiency: A Study of the Social Forces that Have Shaped the Administration of the Public Schools. Chicago: University of Chicago Press, 1962.
- Carnegie Forum on Education and Economy. A Nation Prepared: Teachers for the 21st Century. Report of the Carnegie Task Force on Teaching as a Profession. Washington, DC: Carnegie Foundation, 1986.
- Carnegie Foundation for the Advancement of Teaching. Report Card on School Reform: The Teachers Speak. Washington, DC: Carnegie Foundation, May 1988.
- Cartwright, Dorwin, and Alvin Zander. Group Dynamics. New York: Harper and Row, 1968.

- Cervone, Daniel, and Philip K. Peake. "Anchoring Efficacy and Action: The Influence of Judgmental Heuristics on Self-Efficacy Judgments and Behavior." Journal of Personality and Social Psychology 50 (March 1986): 492-450.
- Charters, W.W., Jr. "Some Factors Affecting Teacher Survival in School Districts." American Educational Research Journal 7 (1970): 1-27.
- Chubb, John E. "Why the Current Wave of School Reform Will Fail." The Public Interest 90 (Winter 1988): 28-49.
- Chubb, John E., and Terry M. Moe. What Price Democracy? Politics, Markets and the Public Schools. Washington, DC: The Brookings Institution, 1988.
- College Entrance Examination Board. Academic Preparation for College: What Students Need to Know and Be Able to Do. New York: Educational Equality Project, The College Board, 1983.
- Collins, James. Self-Efficacy and Ability in Achievement Behavior. Paper presented at the annual meeting of the American Educational Association, New York, 1982. ERIC ED 180 234.
- Conger, Jay A. The Charismatic Leader: Behind the Mystique of Exceptional Leadership. San Francisco: Jossey-Bass Publishers, 1989.
- Conger, Jay A. "Empowering Leadership." Working Paper, McGill University, Montreal, Canada. Quoted in Jay A Conger and Rabindra N. Kanungo, "The Empowerment Process: Integrating Theory and Practice." Academy of Management Review 13 (1988): 474.
- Conger, Jay A., and Rabindra N. Kanungo. "The Empowerment Process: Integrating Theory and Practice." Academy of Management Review 13 (1988): 471-482.
- Conley, Sharon C., and Samuel B. Bacharach. "From School-Site Management to Participatory School-Site Management." Phi Delta Kappan 71 (March 1990): 539-549.
- Conley, Sharon C., Timothy Schmidle, and Joseph B. Shedd. "Teacher Participation in the Management of School Systems." Teachers College Record 90 (Winter 1988): 259-280.

- Cox, Harold, and James R. Wood. "Organizational Structure and Professional Alienation: The Case of Public School Teachers." Peabody Journal of Education 58 (October 1980): 1-6.
- Crowe, Bruce J., Stephen Bochner, and Alfred W. Clark. "The Effects of Subordinates' Behavior on Managerial Style." Human Relations 25 (1972): 215-237.
- Cuban, Larry. "A Fundamental Puzzle of School Reform." Phi Delta Kappan 69 (January 1988a): 341-344.
- Cuban, Larry. How Teachers Taught: Constancy and Change in American Classrooms, 1890-1980. New York: Longman, 1984.
- Cuban, Larry. The Managerial Imperative and the Practice of Leadership in Schools. Albany, NY: State University of New York Press, 1988b.
- Cuban, Larry. "Reforming Again, and Again and Again." Educational Researcher 19 (1990): 3-12.
- Cusick, Philip A., and Christopher W. Wheeler. "Educational Morality and Organizational Reform." American Journal of Education 96 (February 1988): 231-255.
- Dansereau, Fred, Jr., George Graen, and William J. Haga. "A Vertical Dyad Linkage Approach to Leadership within Formal Organizations." Organizational Behavior and Human Performances 13 (September 1975): 46-78.
- Darling-Hammond, Linda. "Accountability and Teacher Professionalism." American Educator 12 (Winter 1988): 8-43.
- Darling-Hammond, Linda. Beyond the Commission Reports: The Coming Crisis in Teaching. Santa Monica, CA: The Rand Corp., 1984.
- Deal, Terence E. "Educational Change: Revival Tent, Tinkertoys, Jungle, or School Carnival." In Rethinking School Improvement, Research, Craft and Concept. Ed. Ann Lieberman. New York: Teachers College Press, 1986. 115-128.
- Decker, Patrick J. "The Effects of Rehearsal Group Size and Video Feedback in Behavior Modeling Training." Personnel Psychology 36 (1983): 763-773.

- Deci, Edward L., and Richard M. Ryan. Intrinsic Motivation and Self-Determination in Human Behavior. New York: Plenum Press, 1985.
- Dembo, Myron H., and Sherri Gibson. "Teachers' Sense of Efficacy: An Important Factor in School Improvement." The Elementary School Journal 86 (1985): 173-184.
- Dessler, Gary, and Enzo R. Valenzi. "Initiation of Structure and Subordinate Satisfaction: A Path Analysis Test of Path-Goal Theory." Academy of Management Journal 20 (1977): 251-259.
- Dewey, John. Education Today. New York: Putnam, 1949.
- Dillman, Don A. "Mail and Other Self-Administered Questionnaires." In Handbook for Survey Research. Eds. Peter Rossi, James D. Wright, Andy B. Anderson. New York: Academic Press, 1983. 359-376.
- Dillman, Don A. Mail and Telephone Surveys: The Total Design Method. New York: John Wiley & Sons, 1978.
- Dillon, Peter C., William K. Graham, and Andrea L. Aidells. "Brainstorming on a 'Hot' Problem: Effects of Training and Practice on Individual and Group Performance." Journal of Applied Psychology 56 (1972): 487-490.
- Directory of Montana Schools, 1988-1989. Helena, MT: Office of Public Instruction, State of Montana, 1989.
- Dombart, Patricia M. "The 'Vision' of an Insider: A Practitioner's View." Educational Leadership 43 (November 1985): 70-73.
- Doyle, Denis P., and Terry W. Hartle. Excellence in Education: The States Take Charge. Washington, DC: American Enterprise Institute for Public Policy Research, 1985.
- Eisenhart, Margaret A., Alexander M. Cuthbert, Judith L. Shrum, and Joe R. Harding. "Teacher Beliefs About Their Work Activities: Policy Implications." Theory Into Practice 27 (Spring 1988): 137-144.
- Ekstrom, Ruth B. Beginning Teacher Evaluation Study: Phase 2. Vol. 6 of The Relationship of Teacher Aptitudes to Teacher Behavior. Final Report. Princeton, NJ: Educational Testing Service, 1975.
- Ellis, Rebecca A., and Susan M. Taylor. "Role of Self-Esteem Within the Job Search Process." Journal of Applied Psychology 68 (1983): 632-640.

- Etzioni, Amitai. A Comparative Analysis of Complex Organizations. New York: Free Press, 1961.
- Evans, Martin G. "The Effects of Supervisory Behavior on the Path-Goal Relationship." Organizational Behavior and Human Performance 5 (1970): 277-298.
- Farris, George F., and Francis G. Lim. "Effects of Performance on Leadership Cohesiveness, Influence, Satisfaction, and Subsequent Performance." Journal of Applied Psychology 53 (1969): 490-497.
- Fausto-Sterling, Anne. Myths of Gender: Biological Theories about Women and Men. New York: Basic Books, 1985.
- Feltz, Deborah L. "Path Analysis of the Causal Elements in Bandura's Theory of Self-Efficacy and Anxiety-Based Model of Avoidance Behavior." Journal of Personality and Social Psychology 42 (1982): 764-781.
- Ferguson, George A. Statistical Analysis in Psychology and Education. 5th ed. New York: McGraw-Hill, 1981.
- Fiedler, Fred E. "Leadership Experience and Leader Performance: Another Hypothesis Shot to Hell." Organizational Behavior and Human Performance 5 (1970): 1-14.
- Fiedler, Fred E. A Theory of Leadership Effectiveness. New York: McGraw-Hill, 1967.
- Fiedler, Fred E., and Joseph E. Garcia. New Approaches to Effective Leadership Cognitive Resources and Organizational Performance. New York: John Wiley and Sons, 1987.
- Fiedler, Fred E., and Robert J. House. "Leadership Theory and Research: a Report of Progress." In International Review of Industrial and Organizational Psychology. Eds. C.L. Cooper and Ivan Robertson. New York: John Wiley and Sons, 1988. 73-92.
- Filley, Alan C., Robert House, and Steven Kerr. Managerial Process and Organizational Behavior. Glenview, IL: Scott, Foresman and Co., 1976.
- Fink, Arlene, and Jacqueline Kosecoff. How to Conduct Surveys. Beverly Hills, CA: SAGE Publications, 1985.

- Finn, Chester E., Jr. "Education that Works: Make the Schools Compete." Harvard Business Review 65 (1987): 63-68.
- Fleishman, Edwin A. "Twenty Years of Consideration and Structure." In Current Developments in the Study of Leadership. Eds. Edwin A. Fleishman and James G. Hunt. Carbondale, IL: Southern Illinois University Press, 1973. 67-112.
- Fleishman, Edwin A., and Eugene F. Harris. "Patterns of Leadership Behavior Related to Employee Grievances and Turnover." Personnel Psychology 15 (1962): 43-56.
- Forsyth, Patrick B., and Wayne K. Hoy. "Isolation and Alienation in Educational Organizations." Educational Administration Quarterly 14 (Winter 1978): 80-96.
- Foti, Rosanne J., Scott L. Fraser, and Robert C. Lord. "Effects of Leadership Labels and Prototypes on Perceptions of Political Leaders." Journal of Applied Psychology 67 (1982): 326-333.
- Fraday, Marshall, Joan S. Dunphy, and the ABC New Closeup Staff. To Save Our Schools, To Save Our Children. Far Hills, NJ: New Horizon Press, 1985.
- Fuhrman, Susan, William H. Clune, and Richard F. Elmore. "Research on Education Reform: Lessons on the Implementation of Policy." Teachers College Record 90 (Winter 1988): 237-257.
- Fuller, Bruce, Ken Wood, Tamar Rapoport, and Sanford M. Dornbusch. "The Organizational Context of Individual Efficacy." Review of Educational Research 52 (Spring 1982): 7-30.
- Garland, Howard, and Kenneth H. Price. "Attitudes Toward Women in Management and Attributions for Their Success and Failure in Managerial Positions." Journal of Applied Psychology 62 (1977): 29-33.
- Gay, L.R. Educational Research. 2nd ed. Columbus, OH: Charles E. Merrill Publishing Co., 1981.
- Geisert, Gene. "Participatory Management: Panacea or Hoax?" Educational Leadership 46 (November 1988): 56-59.
- Getzels, Jacob W., and Egon G. Guba. "Social Behavior and the Administrative Process." School Review 65 (1957): 423-441.

- Gibson, Sherri, and Myron Dembo. "Teacher Efficacy: A Construct Validation." Journal of Educational Psychology 76 (1984): 569-582.
- Gilligan, Carol. In a Different Voice: Psychological Theory and Woman's Development. Cambridge, MA: Harvard University Press, 1982.
- Giroux, Henry A., and Peter McLaren. "Teacher Education and Politics of Engagement: The Case for Democratic Schooling." Harvard Educational Review 56 (August 1986): 213-237.
- Gist, Marilyn E. "Self-Efficacy: Implications for Organizational Behavior and Human Resource Management." Academy of Management Review 12 (July 1987): 472-485.
- Glickman, Carl D. "Has Sam and Samantha's Time Come at Last?" Educational Leadership 46 (May 1989): 4-9.
- Glickman, Carl D. Supervision of Instruction: A Developmental Approach. 2nd ed. Boston: Allyn and Bacon, 1990.
- Glickman, Carl D. "Unlocking School Reform: Uncertainty as a Condition of Professionalism." Phi Delta Kappan 69 (October 1987): 120-122.
- Goldstein, Irwin L., and M. Jocelyne Gessner. "Training and Development in Work Organizations." In International Review of Industrial and Organizational Psychology. Eds. C.L. Cooper and Ivan Robertson. New York: John Wiley and Sons, 1988. 43-72.
- Goodlad, John I. A Place Called School: Prospects for the Future. New York: McGraw-Hill, 1984.
- Goodlad, John L. "The School as Workplace." In Eighty-Second Yearbook for the Study of Education: Part II. Chicago: University of Chicago Press, 1983. 36-61.
- Gonzales, Fred, and Peter Dowrick. "Mechanisms of Self-Modeling: An Investigation of Skills Acquisition Versus Self-Belief." Unpublished manuscript, University of Alaska, Anchorage, 1982.
- Graen, George. "Role-Making Processes Within Complex Organizations." In Handbook of Industrial and Organizational Psychology. Ed. Marvin D. Dunette. Chicago: Rand McNally, 1976. 1201-1245.

- Graen, George, Fred Dansereau, Jr., and Takao Minami. "Dysfunctional Leadership Styles." Organizational Behavior and Human Performance 7 (February 1972): 216-236.
- Graen, George, Fred Dansereau, Jr., Takao Minami, and James Cashman. "Leadership Behaviors as Cues to Performance Evaluation." Academy of Management Journal 16 (December 1973): 611-623.
- Graen, George, and Steven Ginsburgh. "Job Resignation as a Function of Role Orientation and Leader Acceptance: A Longitudinal Investigation of Organizational Assimilation." Organizational Behavior and Human Performance 19 (1977): 1-17.
- Grecas, Viktor, and Michael L. Schwalbe. "Beyond the Looking-Glass Self: Social Structure and Efficacy-Based Self-Esteem." Social Psychology Quarterly 46 (1983): 77-88.
- Greene, Charles N. "The Reciprocal Nature of Influence Between Leader and Subordinate." Journal of Applied Psychology 60 (1975): 187-193.
- Griffin, Ricky W. "Task Design Determinants of Effective Leadership Behavior." Academy Management Review 4 (1979): 215-224.
- Gronlund, Norman Edward. Measurement and Evaluation in Teaching. 5th ed. New York: Macmillan, 1985.
- Gross, Beatrice, and Ronald Gross, eds. The Great School Debate. New York: Simon and Schuster, 1985.
- Grumet, Madeline R. Bitter Milk: Women and Teaching. Amherst: University of Massachusetts Press, 1988.
- Guskey, Thomas R. "Context Variables that Affect Measures of Teacher Efficacy." Journal of Educational Research 81 (1987a): 41-47.
- Guskey, Thomas R. "Staff Development and the Process of Teacher Change." Educational Researcher 15 (May 1986): 5-12.
- Guskey, Thomas R. "Teacher Efficacy, Self-Concept, and Attitudes Toward the Implementation of Mastery Learning." Paper presented at the annual meeting of the American Educational Research Association, Washington, DC, April 1987b. ERIC ED 281 838.

- Guskey, Thomas R. "Teacher Efficacy, Self-Concept, and Attitudes Toward the Implementation of Mastery Learning." (1987c). Quoted in "The Last Should be First." Phi Delta Kappan 70 (September 1988): 72.
- Gustafson, David P. "The Effect of Commitment to the Task on Role Differentiation in Small Unstructured Groups." Academy of Management Journal 11 (1968): 447-458.
- Gustafson, David P., and Thomas W. Harrell. "A Comparison of Role Differentiation in Several Situations." Organizational Behavior and Human Performance 5 (1970): 299-312.
- Hackman, J. Richard. "The Psychology of Self-Management in Organizations." In Psychology and Work: Productivity, Change, Employment. Eds. Michael S. Pallak and Robert O. Perloff. Washington, DC: American Psychological Association, 1986. 89-136.
- Hackman, J. Richard, and Gregory R. Oldham. Work Redesign. Reading, MA: Addison-Wesley, 1980.
- Halpin, Andrew W. Theory and Research in Administration. New York: Macmillan, 1966.
- Halpin, Andrew W., and Bernard J. Winer. "A Factorial Study of the Leader Behavior Description." In Leader Behavior: Its Description and Measurement. Eds. Ralph M. Stogdill and Alvin E. Coons. Research Monograph No. 88. Columbus, OH: Ohio State University, Bureau of Business Research, 1957. 39-51.
- Hater, J.J., and Bernard M. Bass. "Superiors' Evaluation of Subordinates' Perceptions of Transformational and Transactional Leadership." Working paper. Binghamton, NY: State University of New York, 1986.
- Hemphill, John Knox. "Relations Between the Size of the Group and the Behavior of 'Superior Leaders.'" Journal of Social Psychology 32 (1950): 11-22.
- Hemphill, John Knox, and Alvin E. Coons. "Development of the Leader Behavior Description Questionnaire." In Leader Behavior: Its Description and Measurement. Eds. Ralph M. Stogdill and Alvin E. Coons. Monograph No. 88. Columbus, OH: Ohio State University, Bureau of Business Research, 1957. 6-38.

- Hennig, Margaret, and Anne Jardim. The Managerial Woman. Garden City, NY: Doubleday Press, 1977.
- Herbst, Jurgen. And Sadly Teach Teacher Education and Professionalization in American Culture. Madison, WI: University of Wisconsin Press, 1989.
- Herold, David M. "Two-Way Influence Processes in Leader-Follower Dyads." Academy of Management Journal 20 (1977): 224-237.
- Herrick, H.S. The Relationship of Organizational Structure to Teacher Motivation in Multiunit and Non-Multiunit Elementary Schools. Technical Report No. 322. Madison, WI: University of Wisconsin, Wisconsin Research and Development Center for Cognitive Learning, 1973.
- Hersey, Paul, and Kenneth H. Blanchard. Management of Organizational Behavior: Utilizing Human Resources. 5th ed. Englewood Cliffs, NJ: Prentice-Hall, 1988.
- Hills, Richard J. "The Representative Function: Neglected Dimensions of Leadership Behavior." Administrative Science Quarterly 8 (1963): 83-101.
- The Holmes Group. Tomorrow's Teachers: A Report of the Holmes Group. East Lansing, MI: The Holmes Group, Inc., 1986.
- Hord, Shirley M. "The Principal as Teacher Educator." Journal of Teacher Education 39 (1988): 8-12.
- Hornstein, Harvey A., Madeline E. Heilman, Edward Mone, and Ross Tartell. "Responding to Contingent Leadership Behavior." Organizational Dynamics 15 (Spring 1987): 56-65.
- House, Robert J. "A 1976 Theory of Charismatic Leadership." In Leadership: The Cutting Edge. Eds. J.G. Hunt and L.L. Larson. Carbondale, IL: Southern Illinois University Press, 1977. 110-138.
- House, Robert J. "A Path-Goal Theory of Leader Effectiveness." Administrative Science Quarterly 16 (September 1971): 321-338.
- House, Robert J. "Power and Personality in Complex Organizations." In Research in Organizational Behavior: An Annual Review of Critical Essays and Reviews. Eds. L.L. Cummings and B.M. Staw. Greenwich, CT: JAI Press, 1988.

- House, Robert J., and Mary L. Baetz. "Leadership: Some Empirical Generalizations and New Research Directions." In Research in Organizational Behavior, Vol. 1. Ed. Barry M. Staw. Greenwich, CT: JAI Press, 1979. 341-423.
- House, Robert J., and Gary Dessler. "The Path-Goal Theory of Leadership: Some Post Hoc and A Priori Tests." In Contingency Approaches to Leadership. Eds. James G. Hunt and Lars L. Larson. Carbondale, IL: Southern Illinois University Press, 1974. 29-55.
- House, Robert J., and Terence R. Mitchell. "Path-Goal Theory of Leadership." Journal of Contemporary Business 5 (1974): 81-94.
- Howell, J.M. "A Laboratory Study of Charismatic Leadership." Cited in "Leadership Theory and Research: A Report of Progress," by Fred E. Fiedler and Robert J. House. In International Review of Industrial and Organizational Psychology. Eds. Cary L. Cooper and Ivan T. Robertson. New York: John Wiley and Sons, 1988. 73-92.
- Howell, Jon P., and Peter W. Dorfman. "Leadership and Substitutes for Leadership Among Professional and Nonprofessional Workers." Journal of Applied Behavioral Sciences 22 (1986): 29-46.
- Hoy, Wayne K., and Cecil G. Miskel. Educational Administration. 2nd ed. New York: Random House, 1982.
- Hunter, Madeline, and George Barker. "If at First . . . Attribution Theory in the Classroom." Educational Leadership 45 (October 1987): 51-53.
- Husen, Terrell, L.J. Saha, and R. Noonan. "Teacher Training and Student Achievement in Less Developed Countries." Working Paper No. 310. World Bank, Education Department, Washington, DC, 1978. Photocopy.
- Immegart, Glenn L. "Leadership and Leader Behavior." In Handbook of Research on Educational Administration. Ed. Norman J. Boylan. New York: Longman, 1988. 259-277.
- Indvik, J. "Path-Goal Theory of Leadership: A Meta-Analysis." In Proceedings of the Academy of Management. Chicago, IL: The Academy, 1986.
- Jago, Arthur G. "Leadership: Perspectives in Theory and Research." Management Science 28 (March 1982): 315-336.

- Jennings, Eugene E. An Anatomy of Leadership: Princes, Heroes, and Supermen. New York: Harper, 1960.
- Kaestle, Carl F. "The Public Schools and the Public Mood." American Heritage 41 (February 1990): 66-81.
- Kanter, Rosabeth Moss. The Change Masters. New York: Simon and Schuster, 1983.
- Kanter, Rosabeth Moss. Men and Women of the Corporation. New York: Basic Books, 1977.
- Kanter, Rosabeth Moss. "Power Failure in Management Circuits." Harvard Business Review 57 (1979): 65-75.
- Katz, Daniel, and Robert L. Kahn. The Social Psychology of Organizations. 2nd ed. New York: John Wiley & Sons, 1978.
- Katz, Daniel, N. Maccoby, and Nancy C. Morse. Productivity, Supervision and Morale in an Office Situation. Detroit, MI: Darel, 1950.
- Katz, Ralph. "The Influence of Group Conflict on Leadership Effectiveness." Organizational Behavior and Human Performance 20 (1977): 265-286.
- Kazdin, Alan E. "Covert Modeling, Model Similarity, and Reduction of Avoidance Behavior." Behavior Therapy 5 (1974): 325-340.
- Kearns, David T. "A Business Perspective on American Schooling." Education Week, 20 April 1988a: 54, 56.
- Kearns, David T. "An Education Recovery Plan for America." Phi Delta Kappan 69 (April 1988b): 565-575.
- Kearns, David T., and Denis P. Doyle. Winning the Brain Race: A Bold Plan to Make Our Schools Competitive. San Francisco, CA: ICS Press, 1988.
- Kerlinger, Fred N. Foundations of Behavioral Research. 2nd ed. New York: Holt, Rinehart and Winston, 1973.
- Kerr, Steven. "Substitutes for Leadership." In Proceedings of the American Institute for Decision Sciences. San Francisco, 1976. 24-38.

- Kerr, Steven, and John M. Jermier. "Substitutes for Leadership: Their Meaning and Measurement." Organizational Behavior and Human Performance 22 (1978): 375-403.
- Kish, Leslie. Survey Sampling. New York: John Wiley, 1965.
- Kolderie, Ted. "Education That Works: The Right Role for Business." Harvard Business Review 65 (1987): 56-62.
- Kotter, John P. "What Leaders Really Do." Harvard Business Review 68 (May/June 1990): 103-111.
- Kunz, Daniel W., and Wayne K. Hoy. "Leadership Style of Principals and the Professional Zone of Acceptance of Teachers." Educational Administration Quarterly 12 (Fall 1976): 49-64.
- Kusnet, David. "New Ways of Working." American Educator 12 (Fall 1988): 18-45.
- Lanier, Judith, and Joseph Featherstone. "A New Commitment to Teacher Education." Educational Leadership 46 (November 1986): 18-22.
- Lawler, Edward E., III. "Control Systems in Organizations." In Handbook of Industrial and Organizational Psychology. Ed. Marvin D. Dunette. Chicago: Rand McNally, 1976. 1247-1291.
- Lefcourt, Herbert M. Locus of Control: Current Trends in Theory and Research. 2nd ed. Hillsdale, NJ: L. Erlbaum Associates, 1982.
- Lent, Richard W., and George Hacket. "Career Self-Efficacy: Empirical Status and Future Directions." Journal of Vocational Behavior 30 (1987): 347-382.
- Levin, Henry M. "A Cost-Effective Analysis of Teacher Selection." Journal of Human Resources 1 (1970): 24-33.
- Levy, Amir. "Second-Order Planned Change: Definition and Conceptualization." Organizational Dynamics 15 (Summer 1986): 5-20.
- Lieberman, Ann. "Expanding the Leadership Team." Educational Leadership 45 (February 1988a): 4-8.
- Lieberman, Ann. "Teachers and Principals: Turf, Tension, and New Tasks." Phi Delta Kappan 69 (May 1988b): 648-653.

- Liftig, Robert. "Our Dirty Little Secrets: Myths about Teachers and Administrators." Educational Leadership 47 (1990): 67-70.
- Likert, Rensis G. The Human Organization: Its Management and Value. New York: McGraw-Hill, 1967.
- Likert, Rensis G. New Patterns of Management. New York: McGraw-Hill, 1961.
- Linsky, Arnold S. "Stimulating Responses to Mailed Questionnaires: A Review." Public Opinion Quarterly 39 (Spring 1975): 82-101.
- Lipsky, Michael. Street-Level Bureaucracy: Dilemmas of the Individual in Public Services. New York: Russell Sage Foundation, 1980.
- Little, Judith Warren. "Norms of Collegiality and Experimentation: Workplace Conditions of School Success." American Educational Research Journal 19 (Fall 1982): 325-340.
- Locke, Edwin A. "The Nature and Causes of Job Satisfaction." In Handbook of Industrial and Organizational Psychology. Ed. Marvin D. Dunnette. Chicago, IL: Rand McNally, 1976. 1297-1349.
- Locke, Edwin A., Elizabeth Frederick, Cynthia Lee, and Philip Bobko. "Effect of Self-Efficacy, Goals, and Task Strategies on Task Performance." Journal of Applied Psychology 69 (1984): 241-251.
- Lord, Robert G. "An Information Processing Approach to Social Perceptions, Leadership, and Behavioral Measurement in Organizations." In Research in Organizational Behavior, Vol. 7. Eds. Luvern L. Cummings and Barry Staw. Greenwich, CT: JAI Press, 1985. 245-269.
- Lortie, Dan C. "The Balance of Control and Autonomy in Elementary School Teaching." In The Semi-Professions and Their Organizations: Teachers, Nurses, and Social Workers. New York: Free Press, 1969. 1-53.
- Lortie, Dan C. Schoolteacher: A Sociological Study. Chicago: University of Chicago Press, 1975.
- Lowin, Aaron, and James R. Craig. "The Influence of Level of Performance on Managerial Style: An Object-Lesson in the Ambiguity of Correlational Data." Organizational Behavior and Human Performance 3 (1968): 440-458.

- Luthans, Fred, and Tim R.V. Davis. "Behavioral Self-Management: The Missing Link in Managerial Effectiveness." Organizational Dynamics 8 (1979): 42-60.
- Lyson, Thomas A., and William W. Falk. "Recruitment to Schoolteaching: The Relationship Between High School Plans and Early Adult Attainments." American Educational Research Journal 21 (1984): 191-193.
- Maccoby, Eleanor E., and Carol N. Jacklin. The Psychology of Sex Differences. Stanford: Stanford University Press, 1974.
- Maccoby, Michael. The Leader. New York: Ballantine Books, 1981.
- Maeroff, Gene I. Don't Blame the Kids: The Trouble With America's Public Schools. New York: McGraw-Hill, 1982.
- Maier, Norman R. Problem Solving and Creativity in Individuals and Groups. Belmont, CA: Brooks-Cole, 1970.
- "Managers and Leaders: Are They Different?" Public Management 67 (May 1985): 6-10.
- Mann, Richard D. "Review of the Relationships Between Personality and Performance." Psychological Bulletin 56 (1959): 241-270.
- Manz, Charles C., and Henry P. Sims, Jr. "Self-Management as a Substitute for Leadership: A Social Learning Theory Perspective." Academy of Management Review 5 (1980): 361-367.
- March, James G., and Herbert Alexander Simon. Organizations. New York: John Wiley, 1958.
- Mark, Jonathan H., and Barry D. Anderson. "Teacher Survival Rates in St. Louis, 1969-1982." American Educational Research Journal 22 (1985): 413-421.
- Mattingly, Paul H. "Workplace Autonomy and the Reforming of Teacher Education." In Critical Studies in Teacher Education: Its Folklore, Theory, and Practice. Ed. Thomas S. Popkewitz. New York: Falmer Press, 1987.
- Mawhinney, Thomas C., and Jeffrey D. Ford. "The Path-Goal Theory of Leader Effectiveness: An Operant Interpretation." Academy of Management Review 2 (1977): 398-411.

- McClelland, David C. "Achievement Motivation Can Be Developed." Harvard Business Review 43 (1965): 6-24.
- McLaughlin, Milbrey Walling, R. Scott Pfeifer, Deborah Swanson-Owens, and Sylvia Yee. "Why Teachers Won't Teach." Phi Delta Kappan 67 (February 1986): 420-427.
- Mendenhall, William, Lyman Ott, and Richard L. Scheaffer. Elementary Survey Sampling. Belmont, CA: Duxbury Press, 1971.
- Meyer, Herbert H., and Michael S. Raich. "An Objective Evaluation of a Behavior Modeling Training Program." Personnel Psychology 36 (1983): 755-761.
- Meyer, John W., and Brian Rowan. "Institutional Organizations: Formal Structure as Myth and Ceremony." American Journal of Sociology 27 (1977): 16-26.
- Miles, Robert H., and M.M. Petty. "Leader Effectiveness in Small Bureaucracies." Academy of Management Journal 20 (1977): 238-250.
- Miskel, Cecil G., John W. DeFrain, and K. Wilcos. "A Test of Expectancy Motivation Theory in Educational Organizations." Educational Administration Quarterly 16 (1980): 70-92.
- Miskel, Cecil, Richard Fevurly, and J.W. Stewart. "Organizational Structures and Processes, Perceived School Effectiveness, Loyalty, and Job Satisfaction." Educational Administration Quarterly 15 (1979): 97-118.
- Miskel, Cecil, and Rodney Ogawa. "Work Motivation, Job Satisfaction, and Climate." In Handbook of Research on Educational Administration. Ed. Norman J. Boyan. New York: Longman, 1988. 279-304.
- Mitchell, Terence R. "Cognitive Complexity and Leadership Style." Journal of Personality and Social Psychology 16 (1970): 166-173.
- Mitchell, Terence R. "Motivation and Participation: An Integration." Academy of Management Journal 16 (1973): 160-179.
- Mitchell, Terence R., Stan G. Green, and Robert E. Wood. "An Attributional Model of Leadership and the Poor-Performing Subordinate: Development and Validation." In Research in Organizational Behavior, Vol. 3 Eds. Luvern Cummings and Barry M. Staw. Greenwich, CT: JAI Press, 1981. 341-422.

- Mitchell, Terence R., James R. Larson, and Stan G. Green. "Leader Behavior, Situational Moderators and Group Performance: An Attributional Analysis." Organizational Behavior and Human Performance 18 (1977): 254-268.
- Mitchell, Terence W., Charles M. Smyser, and Stan E. Weed. "Locus of Control: Supervision and Work Satisfaction." Academy of Management Journal 18 (1975): 623-630.
- Morris, Joseph L. "A Qualitative Analysis of Teacher Recruitment: Consequences for the System." American Educational Research Journal 18 (1980): 317-327.
- Muire, Irene T. "The Relationship of Computer Self-Efficacy Expectations to Computer Interest and Course Enrollment in College." Sex Roles 16 (March 1987): 303-311.
- Mullis, V.S. Crossroads in American Education: A Summary of Findings. Princeton, NJ: National Assessment of Educational Progress and Educational Testing Service, 1989.
- National Commission on Excellence in Education. A Nation at Risk: The Imperative for Educational Reform. Washington, DC: U.S. Government Printing Office, 1983.
- Neilsen, Eric H. "Empowerment Strategies: Balancing Authority and Responsibility." In Executive Power. Ed. Suresh Srivastara and Associates. San Francisco, CA: Jossey-Bass, 1986. 78-110.
- "New York Lawsuit Highlights Growing Tension Between Principals, Teachers Over Their Roles." Education Week, 14 January 1987: 1, 23.
- O'Leary, Virginia E. "Some Attitudinal Barriers to Occupational Aspirations in Women." Psychological Bulletin 81 (1974): 809-826.
- Olson, Lynn. "Few Takers for Waivers." Teacher Magazine 1 (1990): 16-19.
- Olson, Lynn. "Goodlad on Teacher Education: Low Status, Unclear Mission." Education Week, 28 February 1990: 1, 27.
- Pavalko, Ronald M. "Recruitment to Teaching: Patterns of Selection and Retention." Sociology of Education 43 (1970): 340-353.

- Pereira, D.F. Factors Associated with Transformational Leadership in an Indian Engineering Firm. Toronto, Canada: Administrative Sciences Association of Canada, 1987.
- Peterson, Penelope L. "Teachers' and Students' Cognitional Knowledge for Classroom Teaching and Learning." Education Researcher 17 (1988): 5-14.
- Pfeffer, Jeffrey. "Management as Symbolic Action: The Creation and Maintenance of Organizational Paradigms." In Research in Organizational Behavior. Vol. 3. Eds. L.L. Cummings and Barry M. Staw. Greenwich, CT: JAI Press, 1981. 1-52.
- Phillips, James S., and Robert G. Lord. "Causal Attributions and Perceptions of Leadership." Organizational Behavior and Human Performance 28 (1981): 143-163.
- Popham, W. James. Modern Educational Measurement. Englewood Cliffs, NJ: Prentice-Hall, 1981.
- Pulvino, C.A.F. Relationship of Principal Leadership Behavior to Teacher Motivation and Innovation. Unpublished doctoral dissertation. University of Wisconsin, Madison, 1979.
- Ratsoy, Edward W. "Participative and Hierarchical Management of Schools: Some Emerging Generalizations." Journal of Educational Administration 11 (1973): 161-170.
- Ravitch, Diane. The Troubled Crusade: American Education, 1945-1980. New York: Basic Books, 1983.
- Ravitch, Diane, and Chester E. Finn. What Do Our 17-Year-Olds Know? A Report on the First National Assessment of History and Literature. New York: Harper and Row, 1987.
- Reddin, William J. Managerial Effectiveness. New York: McGraw-Hill, 1970.
- Report Card on School Reform. Princeton, NJ: Carnegie Foundation, 1988.
- Rice, Robert W., Lisa R. Bender, and Alan G. Vitters. "Leader Sex, Follower Attitudes Toward Women; and Leadership Effectiveness: A Laboratory Experiment." Organizational Behavior and Human Performance 25 (1980): 46-78.

- Roberts, Nancy C. "Transforming Leadership: A Process of Collective Action." Human Relations 38 (1985): 1023-1046.
- Rodman, Blake. "In Minnesota Experiment, Committee of Teachers Replaces Principal." Education Week, 17 June 1987: 1, 21.
- Rosenholtz, Susan J. "Education Reform Strategies: Will They Increase Teacher Commitment?" American Journal of Education 95 (August 1987): 534-562.
- Rosenholtz, Susan J. "Effective Schools: Interpreting the Evidence." American Journal of Education 93 (1985): 352-388.
- Rosenholtz, Susan J. Teachers' Workplace: The Social Organization of Schools. New York: Longman, 1989.
- Rosenholtz, Susan J., Otto Bassler, and Kathy Hoover-Dempsey. "Organizational Conditions of Teacher Learning." Teaching and Teacher Education 2 (1986): 94-104.
- Rosenthal, Robert, and Ralph L. Rosnow. The Volunteer Subject. New York: John Wiley, 1975.
- Rotter, Julian B. "Generalized Expectancies for Internal Versus External Control of Reinforcement." Psychological Monographs, 1966, 80 (Whole No. 609).
- Runyon, Kenneth E. "Some Interactions Between Personality Variables and Management Styles." Journal of Applied Psychology 57 (1973): 288-294.
- Rutter, Michael, Barbara Maughan, Peter Mortimore, Janet Ousten, with Alan Smith. Fifteen Thousand Hours: Secondary Schools and Their Effects on Children. Cambridge, MA: Harvard University Press, 1979.
- Salancik, Gerald R., and Jeffrey Pfeffer. "A Social Information Processing Approach to Job Attitudes and Task Design." Administrative Science Quarterly 23 (1978): 224-253.
- Schein, Virginia E. "The Relationship Between Sex Role Stereotypes and Requisite Management Characteristics." Journal of Applied Psychology 57 (1973): 95-100.

- Schein, Virginia E. "Relationships Between Sex Role Stereotypes and Requisite Management Characteristics Among Female Managers." Journal of Applied Psychology 60 (1975): 340-344.
- Schlechy, Philip C., and Victor Vance. "Recruitment, Selection, and Retention: The Shape of the Teaching Force." Elementary School Journal 83 (1983): 469-487.
- Schriesheim, Chester A., Robert J. House, and Steven Kerr. "Leader Initiating Structure: A Reconciliation of Discrepant Research Results and Some Empirical Tests." Organizational Behavior and Human Performance 15 (1976): 297-321.
- Schuler, Randall S. "Participation with Supervisor and Subordinate Authoritarianism: A Path-Goal Theory Reconciliation." Administrative Science Quarterly 21 (1976): 320-325.
- Sergiovanni, Thomas J. "Adding Value to Leadership Gets Extraordinary Results." Educational Leadership 47 (1990) 23-27.
- Shanker, Albert. "Our Profession, Our Schools: The Case for Fundamental Reform." American Educator 10 (Fall 1986): 10-17.
- Shanker, Albert. "A Proposal for Using Incentives to Restructure Our Public Schools." Phi Delta Kappan 71 (January 1990): 345-357.
- Shanker, Albert. "The Revolution That's Overdue." Phi Delta Kappan 66 (January 1988): 311-315.
- Shaw, Marvin E., and Jack Wright. Scales for the Measurement of Attitudes. New York: McGraw-Hill, 1967.
- Sheive, Linda Tinelli. "New Roles for Administrators in Rochester." Educational Leadership 46 (November 1988): 53-55.
- Simon, Herbert A. Administrative Behavior: A Study of Decision-Making Process in Administrative Organizations. New York: Macmillan, 1947.
- Sims, Henry P., Jr. "The Leader as a Manager of Reinforcement Contingencies." In Leadership: The Cutting Edge. Eds. James G. Hunt and Lars L. Larson. Carbondale, IL: Southern Illinois University Press, 1977. 15-33.

- Sims, Henry P., Jr., Dennis A. Gioia, and Associates. The Thinking Organization. San Francisco, CA: Jossey-Bass Publishers, 1986.
- Sizer, Theodore R. Horace's Compromise: The Dilemma of the American High School. Boston, MA: Houghton Mifflin, 1984.
- Slavin, Robert E. Research Methods in Education: A Practical Guide. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1984.
- Smircich, Linda, and Gareth Morgan. "Leadership and the Management of Meaning." Journal of Applied Behavioral Science 18 (1982): 257-274.
- Smith, B.J. "An Initial Test to a Theory of Charismatic Leadership Based on the Responses of Subordinates." Cited in "Leadership Theory and Research: A Report of Progress," by Fred E. Fiedler and Robert J. House. In International Review of Industrial and Organizational Psychology. Eds. Cary L. Cooper and Ivan T. Robertson. New York: John Wiley and Sons, 1988. 73-92.
- Steadman, Lawrence C. "It's Time We Changed the Effective School Formula." Phi Delta Kappan 69 (November 1987): 215-224.
- Stogdill, Ralph M. Handbook of Leadership: A Survey of Theory and Research. New York: Free Press, 1974.
- Stogdill, Ralph M. Individual Behavior and Group Achievement. New York: Oxford University Press, 1959.
- Stogdill, Ralph M. "Leadership, Membership, and Organization." Psychological Bulletin 47 (1950): 1-14.
- Stogdill, Ralph M. Manual for the Leader Behavior Description Questionnaire, Form XII. Columbus, OH: Ohio State University, Bureau of Better Business, 1963.
- Stogdill, Ralph M. "Personal Factors Associated with Leadership: A Survey of the Literature." Journal of Psychology 25 (1948): 35-71.
- Stogdill, Ralph M. "Validity of Leader Behavior Descriptions." Personnel Psychology 22 (1969): 153-158.
- Sudman, Seymour. Applied Sampling. New York: Academic Press, 1976.

- Sudman, Seymour. "Applied Sampling." In Handbook of Survey Research. Eds. Peter Rossi, James D. Wright, Andy B. Anderson. New York: Academic Press, 1983. 145-192.
- Sudman, Seymour, and Norman M. Bradburn. Asking Questions. San Francisco: Jossey-Bass Publishers, 1982.
- Summers, Anita A., and Barbara L. Wolfe. "Do Schools Make a Difference?" American Economic Review 67 (1977): 639-652.
- "Survey Finds Teachers 'Dispirited,' Uninvolved in Reform." Education Week, 25 May 1988: 1, 13.
- Szilagyi, Andrew D., and Henry P. Sims, Jr. "An Exploration of the Path-Goal Theory of Leadership in a Health Environment." Academy of Management Journal 17 (1974): 622-634.
- Taylor, Susan M., Edwin A. Locke, Cynthia Lee, and Marilyn Gist. "Type A Behavior and Faculty Research Productivity: What Are the Mechanisms?" Organizational Behavior and Human Performance 34 (1984): 402-418.
- Theobald, Neil. Who Shall Teach Our Children? Olympia, WA: Puget Sound Educational Consortium, University of Washington, and the State Superintendent for Public Instruction, 1987.
- Thomson, Scott D. "School Leaders Get Their First Long Look at Carnegie's Ambitious Agenda." American School Board Journal 173 (September 1986): 6.
- Thoreson, Carl E., and Mahoney, M.J. Behavioral Self-Control. New York: Holt, Rinehart and Winston, 1974.
- Trider, Donald M., and Kenneth A. Leithwood. "Exploring the Influences on Principal Behavior." Curriculum Inquiry 18 (Fall 1988): 289-311.
- Tuckman, Bruce W. Conducting Educational Research. 3rd ed. New York: Harcourt Brace Jovanovich, 1988.
- Tyack, David, and Elisabeth Hansot. Managers of Virtue: Public School Leadership in America, 1820-1980. New York: Basic Books, 1982.
- Urbanski, Adam. "The Rochester Contract: A Status Report." Educational Leadership 46 (November 1988): 48-52.

- Vance, Victor, and Philip C. Schlechty. "The Distribution of Academic Ability in the Teaching Force: Policy Implications." Phi Delta Kappan 54 (1982): 22-27.
- Van Maanen, John, and Schein, Edgar H. "Toward a Theory of Organizational Socialization." In Research in Organizational Behavior, Vol. 1. Ed. Barry M. Staw. Greenwich, CT: JAI Press, 1979. 209-264.
- Vroom, Victor H. "Some Personality Determinants of the Effects of Participation." Journal of Abnormal and Social Psychology 59 (1959): 322-327.
- Vroom, Victor H. "Leadership." In Handbook of Industrial and Organizational Psychology. Ed. Marvin D. Dunnette. Chicago: Rand McNally, 1976. 1527-1551.
- Watzlawick, Paul, John Weakland, and Richard Fisch. Change: Principles of Problem Formation and Problem Resolution. New York: Norton, 1974.
- Weber, Max. The Theory of Social and Economic Organization. Trans. A.M. Henderson and Talcott Parsons. Glencoe, IL: Free Press, 1947.
- Weick, Karl E. "Cognitive Processes in Organizations." In Research in Organizational Behavior, Vol. 1. Ed. Barry M. Staw. Greenwich, CT: JAI Press, 1979. 41-74.
- Weick, Karl E. "Educational Organizations as Loosely Coupled Systems." Administrative Science Quarterly 21 (1976): 1-19.
- Weiler, Kathleen. Women Teaching for Change: Gender, Class and Power. South Hadley, MA: Bergen and Garvey, 1987.
- Weiner, Bernard. "An Attributional Theory of Achievement, Motivation and Emotion." Psychological Review 92 (1985): 548-573.
- White, Ralph K., and Ronald Lippitt. Autocracy and Democracy: An Experimental Inquiry. New York: Harper and Row, 1960.
- Wilson, Bruce L., and William A. Firestone. "The Principal and Instruction: Combining Bureaucratic and Cultural Linkages." Educational Leadership 45 (September 1987): 18-23.
- Wise, Arthur. Effective Teacher Selection: From Recruitment to Retention. Monograph prepared for the National Institute of Education. Santa Monica, CA: The Rand Corporation, 1987.

- Wise, Arthur. Legislated Learning: The Bureaucratization of the American Classroom. Berkeley, CA: University of California Press, 1979.
- Wood, Robert, and Albert Bandura. "Social Cognitive Theory of Organizational Management." Academy of Management Review 14 (July 1989): 361-384.
- Worthen, Blaine R. An Experimental Study of Techniques to Improve Response Rates of Mailed Questionnaires: A Final Report. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA, February 1973. ERIC ED 078 088.
- Yukl, Gary A. Leadership in Organizations. 2nd ed. Englewood Cliffs, NJ: Prentice-Hall, 1989.
- Yukl, Gary A. "Toward a Behavioral Theory of Leadership." Organizational Behavior and Human Performance 6 (1971): 414-440.
- Yukl, Gary A., and David D. Van Fleet. "Cross-Situational and Multi-Method Research on Military Leader Effectiveness." Organizational Behavior and Human Performance 30 (1982): 87-103.
- Yunker, Gary W., and J.G. Hunt. "An Empirical Comparison of the Michigan Four-Factor and Ohio State LBDQ Leadership Scales." Organizational Behavior and Human Performance 17 (1976): 45-65.
- Zaleznik, Abraham. "Managers and Leaders: Are They Different?" Harvard Business Review 55 (May-June 1977): 67-78.
- Zielinski, Arlene E., and Wayne K. Hoy. "Isolation and Alienation in Elementary Schools." Educational Administration Quarterly 19 (Spring 1983): 27-45.

APPENDICES

APPENDIX A  
SURVEY INSTRUMENT

**COMMITMENT IN THE WORKPLACE  
AND TEACHER PERCEPTIONS OF PRINCIPALS:  
A STATEWIDE SURVEY OF MONTANA TEACHERS**

This survey is designed to investigate your perceptions of your principal's behaviors as a leader of your school. On the following pages, you will find questions covering four areas of interests: (1) questions focused on your personal experiences as a teacher, (2) questions asking for your perceptions of your principal's leadership behaviors, (3) questions investigating your range of acceptance of your principal's decision making actions, and (4) demographic questions. Please respond to all questions as directed. Your immediate perceptions are being sought in this questionnaire; therefore, you should complete it fairly rapidly. If you wish to comment on any questions or qualify your answers, please feel free to use the space in the margins to do so. Your comments will be read and taken into account. It is, however, very important that you give a response to each item, so ***please answer all questions.***

Do not worry that your name will be associated with your answers. The results of this study will not identify either individual respondents or schools/principals with which the respondents are associated.

Thank you for your help in completing this survey.



Department of Education  
Montana State University  
Bozeman, Montana 59717

*Below you will find four items asking your beliefs concerning teachers' professional and organizational roles in the school workplace. These items have no right or wrong answers, so answer with your immediate response. With these items, follow these directions:*

**READ** each item carefully.

**THINK** what you believe in regard to that item in relation to yourself in your **current** work situation.

**DRAW A CIRCLE** around one of the five response numbers ( 1 2 3 4 5 ) to show the answer you have selected.

### RESPONSE SCALE

1=Strongly Agree 2=Agree 3=Neither Agree nor Disagree  
4=Disagree 5=Strongly Disagree

- |  |                   |
|--|-------------------|
| (1) When it comes right down to it, a teacher really can't make much of a difference for a student because most of a student's motivation and performance depends on his/her home environment.   | 1   2   3   4   5 |
| (2) If I really try hard, I can get through to even the most difficult or unmotivated student.   | 1   2   3   4   5 |
| (3) When it comes right down to it, a teacher really can't do much to influence what happens in relation to professional decisions beyond his/her immediate classroom because most of those decisions are decided by supervisors over whom teachers have little influence. | 1   2   3   4   5 |
| (4) If I really try hard, I can influence what happens in relation to professional decisions involving issues beyond my immediate classroom because I can influence the supervisors in my school system.   | 1   2   3   4   5 |

*Our next concerns involve your perceptions of your activity within your job and your professional association.*

- (6) In your current work situation as a teacher, how much freedom do you feel you have to do what you think is best for you as a teacher and a district employee? *(circle one number only)*

1	2	3	4	5	6	7
Complete Freedom						Little Freedom

- (7) Please describe your activity as a member in your professional organization (MEA or MFT) according to the following scale. *(circle one response only)*

#### RESPONSE SCALE

1. Dues paying member in order to have insurance; don't particularly care about organization's goals/positions.
2. Dues paying member, but do support organization's goals/positions; do not participate in meetings much.
3. Attend majority (over 50 percent) of local meetings of organization and support organization's goals/positions.
4. Attend most local, regional, and statewide meetings of organization and actively participate by vocally supporting organization's local activities.
5. Very active, local or state officer, and/or serve on local or state committees.

*In order to understand how teachers view their work lives, it is important to gain an understanding of the range of teachers' willingness to accept unilateral decisions by the principal. For this reason, we now ask you to respond to the following inventory.*

### ZONE OF ACCEPTANCE INVENTORY

*Below are listed descriptions of broad areas in which your principal may make specific unilateral decisions. Each item describes a broad area, but **does not** ask you to judge whether a specific decision within this area is desirable or undesirable. **This is not a test of ability.** There are no right or wrong answers. It simply asks you to describe, as accurately as you can, your probable frequency of compliance with the decision of your principal in that area.*

#### **DIRECTIONS:**

**READ** each item carefully.

**THINK** about how frequently you would comply with a decision made by a principal in the area described.

**DECIDE** whether you would comply: (A) Always, (B) Often, (C) Occasionally, (D) Seldom, or (E) Never.

**DRAW A CIRCLE** around the appropriate response.

**ANSWER ALL QUESTIONS** in a manner you believe most accurately describes your probable behavior with your principal.

#### RESPONSE SCALE

A=Always   B=Often   C=Occasionally   D=Seldom   E=Never

**Your principal has made a specific policy decision within each of the following areas:**

- |  | I would comply with<br>the decision: |
|--|--------------------------------------|
|  | A   B   C   D   E                    |
| (8) The proper method of identification and handling of atypical children. | A   B   C   D   E                    |
| (9) The evaluation of proper social and emotional growth of students.      | A   B   C   D   E                    |

A=Always B=Often C=Occasionally D=Seldom E=Never

- |   | I would comply with<br>the decision: |   |   |   |   |
|---|--------------------------------------|---|---|---|---|
|   | A                                    | B | C | D | E |
| (10) The change and modification of existing curricula.                       | A                                    | B | C | D | E |
| (11) The planning and utilization of faculty meetings.                        | A                                    | B | C | D | E |
| (12) The evaluation of success of the instructional program.                  | A                                    | B | C | D | E |
| (13) The assignment of non-teaching duties during school hours.               | A                                    | B | C | D | E |
| (14) The methods for conducting parent conferences.                           | A                                    | B | C | D | E |
| (15) The selection of course offerings.                                       | A                                    | B | C | D | E |
| (16) The requirements for student membership in extracurricular activities.   | A                                    | B | C | D | E |
| (17) The appropriate faculty teaching assignments.                            | A                                    | B | C | D | E |
| (18) The selection of supplies and equipment related to teaching assignments. | A                                    | B | C | D | E |
| (19) The methods to be used to discipline students in the classroom.          | A                                    | B | C | D | E |
| (20) The selection of teachers for faculty committee membership.              | A                                    | B | C | D | E |
| (21) The evaluation of teaching success in individual subject areas.          | A                                    | B | C | D | E |
| (22) The extent of teacher involvement in student extracurricular activities. | A                                    | B | C | D | E |

A=Always B=Often C=Occasionally D=Seldom E=Never

	I would comply with the decision:
	A B C D E
(23) The methods to be used for evaluation of teacher progress.	A B C D E
(24) The degree of student proficiency needed to pass each grade and subject.	A B C D E
(25) The selection, evaluation, and retention of teachers.	A B C D E
(26) The scheduling of teacher attendance at school activities.	A B C D E
(27) The determination of time allotments for remedial help.	A B C D E
(28) The grouping of students for classes.	A B C D E
(29) The determination of specific course content.	A B C D E
(30) The evaluation of the success of the curriculum.	A B C D E
(31) The implementation of new curriculum offerings.	A B C D E
(32) The methods to be used for evaluation of pupil progress.	A B C D E
(33) The restricting of teachers' use of unscheduled school time.	A B C D E
(34) The rules governing desirable methods and techniques within the classroom.	A B C D E
(35) The nature and extent of in-service educational requirements.	A B C D E
(36) The content of students' cumulative files.	A B C D E
(37) The conduct of teachers during school hours.	A B C D E

*Anyone who works in a bureaucratic system like the typical public school is well aware of how important are the behaviors a leader exhibits in doing his/her job to the overall sense of well-being a leader's subordinate has in regard to his/her job. Consequently, we are now asking you to respond to a series of items dealing specifically with the behaviors your principal exhibits in doing his/her job.*

### LEADERSHIP BEHAVIOR DESCRIPTION QUESTIONNAIRE

#### DIRECTIONS:

**READ** each item carefully.

**THINK** about how frequently your principal engages in the behavior described by the item.

**DECIDE** whether he/she (A) always, (B) often, (C) occasionally, (D) seldom, or (E) never acts as described by the item.

**DRAW A CIRCLE** around one of the five letters (A B C D E) following the item to show the answer you selected.

#### RESPONSE SCALE

A=Always B=Often C=Occasionally D=Seldom E=Never

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| (38) He/She acts as the spokesperson of the group.             | A | B | C | D | E |
| (39) He/She waits patiently for the results of a decision.     | A | B | C | D | E |
| (40) He/She gives pep talks to stimulate the group.            | A | B | C | D | E |
| (41) He/She lets group members know what is expected of them.  | A | B | C | D | E |
| (42) He/She allows the members complete freedom in their work. | A | B | C | D | E |
| (43) He/She is hesitant about taking initiative in the group.  | A | B | C | D | E |
| (44) He/She is friendly and approachable.                      | A | B | C | D | E |

A=Always B=Often C=Occasionally D=Seldom E=Never

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| (45) He/She encourages overtime work.   | A | B | C | D | E |
| (46) He/She makes accurate decisions.   | A | B | C | D | E |
| (47) He/She gets along well with the people above him/her.                      | A | B | C | D | E |
| (48) He/She publicizes the activities of the group.                             | A | B | C | D | E |
| (49) He/She becomes anxious when he/she cannot find out what is coming next.    | A | B | C | D | E |
| (50) His/Her arguments are convincing.  | A | B | C | D | E |
| (51) He/She encourages the use of uniform procedures.                           | A | B | C | D | E |
| (52) He/She permits the members to use their own judgment in solving problems.  | A | B | C | D | E |
| (53) He/She fails to take necessary actions.                                    | A | B | C | D | E |
| (54) He/She does little things to make it pleasant to be a member of the group. | A | B | C | D | E |
| (55) He/She stresses being ahead of competing groups.                           | A | B | C | D | E |
| (56) He/She keeps the group working together as a team.                         | A | B | C | D | E |
| (57) He/She keeps the group in good standing with higher authority.             | A | B | C | D | E |
| (58) He/She speaks as the representative of the group.                          | A | B | C | D | E |
| (59) He/She accepts defeat in stride.   | A | B | C | D | E |
| (60) He/She argues persuasively for his/her point of view.                      | A | B | C | D | E |

A=Always B=Often C=Occasionally D=Seldom E=Never

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| (61) He/She tries out his/her ideas in the group.                         | A | B | C | D | E |
| (62) He/She encourages initiative in the group members.                   | A | B | C | D | E |
| (63) He/She lets other persons take away his/her leadership in the group. | A | B | C | D | E |
| (64) He/She puts suggestions made by the group into operation.            | A | B | C | D | E |
| (65) He/She needles members for greater effort.                           | A | B | C | D | E |
| (66) He/She seems able to predict what is coming next.                    | A | B | C | D | E |
| (67) He/She is working hard for a promotion.                              | A | B | C | D | E |
| (68) He/She speaks for the group when visitors are present.               | A | B | C | D | E |
| (69) He/She accepts delays without becoming upset.                        | A | B | C | D | E |
| (70) He/She is a persuasive talker.                                       | A | B | C | D | E |
| (71) He/She makes his/her attitudes clear to the group.                   | A | B | C | D | E |
| (72) He/She lets the members do their own work the way they think best.   | A | B | C | D | E |
| (73) He/She lets some members take advantage of him/her.                  | A | B | C | D | E |
| (74) He/She treats all group members as his/her equals.                   | A | B | C | D | E |
| (75) He/She keeps the work of the group moving at a brisk pace.           | A | B | C | D | E |
| (76) He/She settles conflicts when they occur in the group.               | A | B | C | D | E |

A=Always B=Often C=Occasionally D=Seldom E=Never

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| (77) His/Her superiors act favorably on most of his/her suggestions.          | A | B | C | D | E |
| (78) He/She represents the group at outside meetings.                         | A | B | C | D | E |
| (79) He/She becomes anxious when waiting for new developments.                | A | B | C | D | E |
| (80) He/She is very skillful in an argument.                                  | A | B | C | D | E |
| (81) He/She decides what shall be done in the group and how it shall be done. | A | B | C | D | E |
| (82) He/She assigns a task, then lets the members handle it.                  | A | B | C | D | E |
| (83) He/She is the leader of the group in name only.                          | A | B | C | D | E |
| (84) He/She gives advance notice of the changes.                              | A | B | C | D | E |
| (85) He/She pushes for increased work production.                             | A | B | C | D | E |
| (86) Things usually turn out as he/she predicts.                              | A | B | C | D | E |
| (87) He/She enjoys the privileges of his/her position.                        | A | B | C | D | E |
| (88) He/She handles complex problems efficiently.                             | A | B | C | D | E |
| (89) He/She is able to tolerate postponement and uncertainty.                 | A | B | C | D | E |
| (90) He/She is not a very convincing talker.                                  | A | B | C | D | E |
| (91) He/She assigns group members to particular tasks.                        | A | B | C | D | E |
| (92) He/She turns the members loose on a job and lets them go to it.          | A | B | C | D | E |

A=Always B=Often C=Occasionally D=Seldom E=Never

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| (93) He/She backs down when he/she ought to stand firm.                                    | A | B | C | D | E |
| (94) He/She keeps to him/herself.  | A | B | C | D | E |
| (95) He/She asks the members to work harder.   | A | B | C | D | E |
| (96) He/She is accurate in predicting the trend of events.                                 | A | B | C | D | E |
| (97) He/She gets his/her superiors to act for the welfare of group members.                | A | B | C | D | E |
| (98) He/She gets swamped by details.   | A | B | C | D | E |
| (99) He/She can wait just so long, then blows up.  | A | B | C | D | E |
| (100) He/She speaks from strong inner convictions.   | A | B | C | D | E |
| (101) He/She makes sure that his/her part in the group is understood by the group members. | A | B | C | D | E |
| (102) He/She is reluctant to allow the members any freedom of action.                      | A | B | C | D | E |
| (103) He/She lets some members have authority that he/she should keep.                     | A | B | C | D | E |
| (104) He/She looks out for the personal welfare of group members.                          | A | B | C | D | E |
| (105) He/She permits the members to take it easy in their work.                            | A | B | C | D | E |
| (106) He/She sees to it that the work of the group is coordinated.                         | A | B | C | D | E |
| (107) His/Her word carries weight with his/her superiors.                                  | A | B | C | D | E |

A=Always B=Often C=Occasionally D=Seldom E=Never

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| (108) He/She gets things all tangled up.                                 | A | B | C | D | E |
| (109) He/She remains calm when uncertain about coming events.            | A | B | C | D | E |
| (110) He/She is an inspiring talker.                                     | A | B | C | D | E |
| (111) He/She schedules the work to be done.                              | A | B | C | D | E |
| (112) He/She allows the group a high degree of initiative.               | A | B | C | D | E |
| (113) He/She takes full charge in emergencies.                           | A | B | C | D | E |
| (114) He/She is willing to make changes.                                 | A | B | C | D | E |
| (115) He/She drives hard when there is a job to be done.                 | A | B | C | D | E |
| (116) He/She helps group members settle their differences.               | A | B | C | D | E |
| (117) He/She gets what he/she asks for from his/her superiors.           | A | B | C | D | E |
| (118) He/She can reduce a madhouse to system and order.                  | A | B | C | D | E |
| (119) He/She is able to delay action until the proper time for it.       | A | B | C | D | E |
| (120) He/She persuades others that his/her ideas are to their advantage. | A | B | C | D | E |
| (121) He/She maintains definite standards of performance.                | A | B | C | D | E |
| (122) He/She trusts the members to exercise good judgment.               | A | B | C | D | E |
| (123) He/She overcomes attempts made to challenge his/her leadership.    | A | B | C | D | E |

A=Always B=Often C=Occasionally D=Seldom E=Never

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| (124) He/She refuses to explain his/her actions.                            | A | B | C | D | E |
| (125) He/She urges the group to exceed its previous performance.            | A | B | C | D | E |
| (126) He/She anticipates problems and plans for them.                       | A | B | C | D | E |
| (127) He/She is working his/her way to the top.                             | A | B | C | D | E |
| (128) He/She gets confused when too many demands are made of him/her.       | A | B | C | D | E |
| (129) He/She worries about the outcome of any new project.                  | A | B | C | D | E |
| (130) He/She can inspire enthusiasm for a project.                          | A | B | C | D | E |
| (131) He/She asks that group members follow standard rules and regulations. | A | B | C | D | E |
| (132) He/She permits the group to set its own work pace.                    | A | B | C | D | E |
| (133) He/She is easily recognized as the leader of the group.               | A | B | C | D | E |
| (134) He/She acts without consulting the group.                             | A | B | C | D | E |
| (135) He/She keeps the group working up to capacity.                        | A | B | C | D | E |
| (136) He/She maintains a closely knit group.                                | A | B | C | D | E |
| (137) He/She maintains cordial relations with superiors.                    | A | B | C | D | E |

Finally, we would like to ask some questions about yourself to help interpret the results.

(138) What is your age (nearest birthday)? Age \_\_\_\_\_ years

(139) What is your gender? (check one)

1. Female

2. Male

(140) How many total years of teaching experience do you have as a teacher?

\_\_\_\_\_ years

(141) What is your education level? (check correct response)

1. BA/BS

2. BA/BS + 15 (10 semester)

3. BA/BS + 30 (20 semester)

4. BA/BS + 45 (30 semester)

5. MS/MA

6. MS/MA + 15 (10 semester)

7. MS/MA + 30 (20 semester)

8. MS/MA + 45 (30 semester)

9. Educational Specialist

10. Doctorate

Please identify the university/college(s) from which you received your degree(s), including your bachelor's.

1. \_\_\_\_\_  
(Degree) (College/University)

2. \_\_\_\_\_  
(Degree) (College/University)

3. \_\_\_\_\_  
(Degree) (College/University)

(141) Did you receive your most recent training (check applicable response):

within the past five (5) years?

six (6) to ten (10) years ago?

eleven (11) or more years ago?

- (142) In your current teaching position, please identify the grade level/subject area(s) to which you are assigned.

---

(Describe current teaching assignment)

Which of the following teaching certification areas are you certified to teach in Montana? *(check all appropriate responses)*

- |  |   |
|--|---|
| <input type="checkbox"/> Agriculture                             | <input type="checkbox"/> Industrial Arts          |
| <input type="checkbox"/> Art (K-12)                              | <input type="checkbox"/> Journalism               |
| <input type="checkbox"/> Biology                                 | <input type="checkbox"/> Library (K-12)           |
| <input type="checkbox"/> Business Education w/Typing             | <input type="checkbox"/> Mathematics              |
| <input type="checkbox"/> Business Education w/Typing & Shorthand | <input type="checkbox"/> Music (K-12)             |
| <input type="checkbox"/> Chemistry                               | <input type="checkbox"/> PE & Health (K-12)       |
| <input type="checkbox"/> Distributive Education                  | <input type="checkbox"/> Physical Science         |
| <input type="checkbox"/> Dramatics                               | <input type="checkbox"/> Physics                  |
| <input type="checkbox"/> Earth Science                           | <input type="checkbox"/> Political Science        |
| <input type="checkbox"/> Economics                               | <input type="checkbox"/> Psychology               |
| <input type="checkbox"/> Economics/Sociology                     | <input type="checkbox"/> Reading (K-12)           |
| <input type="checkbox"/> Elementary                              | <input type="checkbox"/> General Science          |
| <input type="checkbox"/> English                                 | <input type="checkbox"/> Social Science           |
| <input type="checkbox"/> Foreign Language                        | <input type="checkbox"/> Sociology                |
| <input type="checkbox"/> Foreign Language (specify) _____        | <input type="checkbox"/> Special Education (K-12) |
| <input type="checkbox"/> Geography                               | <input type="checkbox"/> Speech-Communication     |
| <input type="checkbox"/> Guidance & Counseling (K-12)            | <input type="checkbox"/> Speech-Drama             |
| <input type="checkbox"/> Health                                  | <input type="checkbox"/> Technology Education     |
| <input type="checkbox"/> History                                 | <input type="checkbox"/> Trade & Industry         |
| <input type="checkbox"/> History/Political Science               | <input type="checkbox"/> Traffic Education        |
|  | <input type="checkbox"/> Other _____              |

- (143) Do you hold Montana certificate endorsement in any of the following areas? *(check appropriate response)*

- |   |  |
|---|--|
| <input type="checkbox"/> Elementary Principal | <input type="checkbox"/> Superintendent                    |
| <input type="checkbox"/> Secondary Principal  | <input type="checkbox"/> Supervisor (General and Specific) |
| <input type="checkbox"/> School Psychologist  |  |

- (144) What is the approximate student population of the district in which you teach? *(check appropriate response)*

- |  |   |
|--|---|
| <input type="checkbox"/> 1,000 - 1,999 | <input type="checkbox"/> 5,000 - 9,999  |
| <input type="checkbox"/> 2,000 - 4,999 | <input type="checkbox"/> 10,000 or more |

(145) If you had it to do over again, would you choose to become a teacher?  
(check one)

1. Yes

2. No

(146) How many years have you worked for your current principal?

\_\_\_\_\_ years

(147) How many years have you worked in your current school district?

\_\_\_\_\_ years

(148) Please list the different states where you have worked as a teacher starting with the state where you held your initial public school teaching job.

(1) \_\_\_\_\_

(3) \_\_\_\_\_

(2) \_\_\_\_\_

(4) \_\_\_\_\_

(149) Have you ever worked in a supervisory or administrative capacity in any of your employment? (check one)

1. Yes

2. No

(150) Have you ever worked in a supervisory or administrative capacity in your current school district? (check one)

1. Yes

2. No

**PROCEED TO NEXT PAGE**

Is there anything else you would like to tell us about your principal and how you perceive him/her functioning in your professional life? If so, please use the space below for that purpose.

Also, any comments you wish to make which will help us understand how you believe your work life might be improved will be appreciated, either below or in a separate letter.

---

*Please place your completed questionnaire in the enclosed stamped, self-addressed envelope and mail it. It would be appreciated if you would complete and return this instrument as soon as possible.*

*Your contribution to this project is greatly appreciated. If you would like a summary of results, please print your name and address on the back of the return envelope (NOT this questionnaire). We will see that you get it.*

**APPENDIX B**

**CONTACT LETTER, INITIAL MAILOUT**

May 12, 1989

Dear Teacher:

Never before in the history of public education in the United States has so much discussion been focused on the professional experiences of teachers. Policymakers readily recognize the vital importance of teacher contributions to the overall success of schools. Consequently, much thought is now being devoted to how to improve teachers' work lives. Everyone today seems to have a position on how to make teachers' work lives more satisfying. Some policymakers call for increased empowerment of teachers in the school decision making process. They maintain that as schools are currently structured, teachers are isolated inside individual classrooms unable to influence many critical educational decisions which directly impact their success in the workplace. These policymakers also claim teachers have low confidence in the principal's ability to ably lead the school. Other investigators, however, maintain that the primary focus of the work lives of teachers is the student; consequently, they have minimal interest in larger school organizational and leadership concerns. They support the effective school position that the principal is the critical leader in the school. However, even a brief review of the writings on these two positions leads one to conclude that both positions are being erected with little direct information from teachers who are actively working in public schools. Little is known, for example, concerning how teachers who are at varying levels of commitment view their work experiences and their immediate supervisor -- the building principal. This knowledge gap can only be corrected by asking teachers about their views. It is for this reason that I am contacting you. The information you will provide by completing the enclosed questionnaire will help fill in a noticeable gap in what educational policymakers now know about the work lives of teachers.

You are one of a small number of Montana public school teachers being asked to give your opinions on your work experiences in regard to your principal and his/her leadership and decision making behaviors. Your name was randomly selected from public school teachers currently employed in Montana. In order that the results will truly represent the

thinking of the State's public school teachers, it is important that each questionnaire be completed and returned.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so that we may check your name off the mailing list when your questionnaire is returned. Your name will never be placed on this questionnaire nor will it be associated with any of the reported results.

The results of this research will be made available to educational policy-makers, researchers, and others interested in teacher concerns. You may receive a summary of results by writing "copy of results requested" on the back of the return envelope, and printing your name and address below it. Please do not put this information on the questionnaire itself.

I would be most happy to answer any questions you might have. Please write or call. The telephone number is (406) 994-6459.

Thank you for your assistance.

Sincerely,

T. J. Greenwood  
Project Director

Enclosure

APPENDIX C

POSTCARD FOLLOW-UP

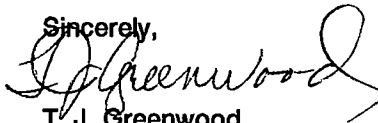
May 19, 1989

Last week a questionnaire seeking your views of your principal's decision making and leadership behaviors was mailed to you. Your name was selected from a random sample of public school teachers in Montana.

If you have already completed and returned it to us, please accept our sincere thanks. If not, please do so. Because the questionnaire has been sent to a small but representative sample of Montana teachers, it is extremely important that your responses be included in the results if the results are to accurately reflect the thinking of Montana public school teachers.

If by some chance you did not receive the questionnaire, or it got misplaced, please call 994-6469 and I will get another questionnaire in the mail to you immediately.

Sincerely,

A handwritten signature in cursive script, appearing to read "T. J. Greenwood".

T. J. Greenwood  
Project Director

**APPENDIX D**

**CONTACT LETTER, SECOND MAILOUT**

June 2, 1989

Dear Teacher:

I am writing you about our study concerning teacher perceptions of principal leadership and decision making behaviors. We have not yet received your completed questionnaire.

The large number of questionnaires returned to date is very encouraging. But whether this study will accurately reflect how Montana teachers feel on the issues the study addresses depends upon you and the other who have not yet responded. This belief is based on past research experiences which suggest that those of you who do not respond on questionnaires until late in the study tend to hold quite different perceptions of their experiences than those who respond early.

This is the first statewide study of this topic that has ever been done. Therefore, the results are of particular importance to Montana teachers, administrators, and educational policymakers interested in the topic of the work lives of teachers. However, the usefulness of the study's results depends on how accurately we are able to describe what Montana public school teachers perceive.

It is for these reasons that I am sending you another questionnaire with this letter. I urge you to please complete and return it as quickly as possible.

I'll be happy to send you a copy of the results of this study if you wish. Simply put your name, address, and "copy of results requested" on the back of the return envelope. I expect to have the results ready to send out early next Fall.

Your contribution to the success of this study is greatly appreciated.

Most sincerely,

T. J. Greenwood  
Project Director

Enclosure

APPENDIX E

CONTACT LETTER, THIRD MAILOUT

June 30, 1989

Dear Teacher:

I am writing you about our study concerning teacher perceptions of principal leadership and decision making behaviors. We have not yet received your completed questionnaire.

The large number of questionnaires returned to date is very encouraging. But whether this study will accurately reflect how Montana teachers feel on the issues the study addresses depends upon you and the other who have not yet responded. This belief is based on past research experiences which suggest that those of you who do not respond on questionnaires until late in the study tend to hold quite different perceptions of their experiences than those who respond early.

This is the first statewide study of this topic that has ever been done. Therefore, the results are of particular importance to Montana teachers, administrators, and educational policymakers interested in the topic of the work lives of teachers. However, the usefulness of the study's results depends on how accurately we are able to describe what Montana public school teachers perceive.

It is for these reasons that I am sending you another questionnaire with this letter. I urge you to please complete and return it as quickly as possible.

I'll be happy to send you a copy of the results of this study if you wish. Simply put your name, address, and "copy of results requested" on the back of the return envelope. I expect to have the results ready to send out early next Fall.

Your contribution to the success of this study is greatly appreciated.

Most sincerely,

T. J. Greenwood  
Project Director

Enclosure

APPENDIX F  
MONTANA SCHOOL DISTRICTS  
INCLUDED IN STUDY

Table 99. Montana school districts included in the study and their enrollments.\*

Group L Districts	Enrollment	Group M Districts	Enrollment
Billings	15,422	Miles City	2,002
Butte**	5,495	Glendive	1,043
Bozeman	4,252	Anaconda**	1,699
Great Falls	12,289	Lewistown	1,500
Helena	7,593	Columbia Falls	2,510
Missoula (2)	9,346	Whitefish	1,718
Kalispell	4,469	Belgrade	1,511
		Browning**	1,904
		Havre	2,527
		Libby	2,133
		Livingston	1,575
		Sidney	1,309
		Wolf Point	1,042
		Colstrip	1,370
		Glasgow	1,052
		Lockwood	1,137
		Dillon	1,027
		Hardin	1,577
		Poison	1,515
		Ronan	1,402
		Laurel	1,891
		Stevensville***	1,045
		Hamilton***	1,309

\*Figures for enrollment were obtained from the Office of Public Instruction, Helena, Montana.

\*\*These districts were not included in the study since they are professionally organized by the Montana Federation of Teachers and, therefore, did not meet the criteria of the defined population.

\*\*\*These districts were not included in the study since they are locally organized and are not affiliated with either of the statewide teacher associations.

APPENDIX G  
LETTER GRANTING PERMISSION  
TO USE PZAI



Graduate School of Education • 10 Seminary Place • New Brunswick • New Jersey 08903

November 22, 1988

T. J. Greenwood  
213 Reid Hall  
Department of Education  
Montana State University  
Bozeman, Montana 59717

Dear Dr. Greenwood:

You have my permission to use the Professional Zone of Acceptance Inventory (PZAI) in your research. I have enclosed a copy of the instrument you requested as well as a copy of the short version.

The only request I make of you is that you reference the article in any manuscript or publication which you write, and send me a copy of the results of the research.

Sincerely,

A handwritten signature in cursive script that reads "Wayne K. Hoy".

Wayne K. Hoy  
Professor

WKH:csh

MONTANA STATE UNIVERSITY LIBRARIES



3 1762 10077392 6

**Condition Noted**

1-2014 Stained pgs