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ABSTRACT

This document reports on a review of the leadership literature, a cross-sectional correlation study, and a series of in-depth teacher interviews, all of which were parts of an effort to better understand the conditions under which a principal can lead. The correlation study makes use of S. Kerr's theory that the effect of the leader's behavior on subordinate motivation or performance will be less in the presence of conditions that may substitute for, or neutralize, the leader's effectiveness. The study tested Kerr's 13 proposed conditions by surveying teachers and principals from a sample of elementary schools in Oregon and Washington. The results provided little support for Kerr's substitute theory in the setting of public elementary schools, but questionnaire weaknesses were thought to contribute to these adverse results. In an alternative approach, nine teachers were interviewed to detect the operation of substituting or neutralizing conditions as respondents recounted their teaching experiences. It is concluded that there are potential substitute conditions in elementary schools, but the question remains whether or not there is variation and if the conditions act as substitutes. Although this theory is worthy of further study, the instruments must be refined. Appendixes include related questionnaires. (DCS)

Principal Influence on Teacher Behavior: Substitutes for Leadership

by

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CHAPTER 1. PRINCIPAL INFLUENCE

Introduction

The role and influence of the principal in matters of instruction remains hotly contested with evidence accumulating on both sides of the issue. On the one hand, the current school effectiveness research suggests that specific leadership behaviors on the part of the principal appear to promote student achievement (Brookover and Lezotte, 1979; Cohen et al., 1977; Cotton and Savard, 1980; Edmonds, 1979; and Gross and Herriott, 1965). On the other hand, the work activity studies and other literature suggest that administrators exert only limited influence in the area of instruction (Corwin, 1970; Dreeben, 1970; Lortie, 1975). Perhaps a critical look at the studies will shed light on this discrepancy.

The Principal: Instructional Leader or Caretaker?

In the research affirming the influence of the principal, it is believed that principal-initiated behavior has its primary impact on the learning environment and teacher morale and productivity, which in turn affect student perceptions, intentions, and behaviors that eventuate in learner outcomes. Recently Edmonds (1979) reviewed a number of studies of exemplary schools and concluded that such schools are characterized by, among other things, principals who are concerned with instructional leadership. It is suggested that the principal is in a position to affect the variables that

are elements in the culture of an effective school (Purkey and Smith, 1982, p. 40). The elements most consistently found by research to lead to a positive learning atmosphere are identified as:

(1) collaborative planning and collegial relationships,
(2) a sense of community,
(3) clear goals and high expectations commonly shared, and
(4) order and discipline (Purkey and Smith, 1982, p. 41).

These are often presented as a recipe for administrators to follow in their school improvement efforts.

Critics of the effective schools literature point out that the lack of empirical data in many of these studies precludes "carrying out any kind of quantitative synthesis" of the findings (Purkey and Smith, 1982, p. 5). They further suggest that despite the intuitive logic of the findings, the "blanket acceptance" of the effective school characteristics is dangerous (p. 26). Purkey and Smith (1982) express reservations about the research as there has been (1) no systematic sampling of different types of schools, (2) no longitudinal studies of schools, and (3) no examination of schools trying to improve, just schools identified as already successful. These studies are criticized for their methodology, the type of questions asked--or not asked--and for giving unclear prescriptions for student, teacher, and principal behavior. These shortcomings can be illustrated.

First, the studies ask the wrong questions. The researchers have studied something other than the principal and then have asserted <u>after the fact</u> that the principal makes a significant difference in the creation or maintenance of an academically successful school. Rutter and associates (1978) state that: "Obviously the influence of the head teacher is very considerable. We did not look in any detail at the styles of management and

leadership which worked best. This is an issue which is now important to investigate" (p. 203).

Second, the effective schools studies usually offer inadequate prescriptions for schools to become academically successful. For example, we are told that time on task is important and that it should be increased. This prescription is rather vague. How much more time should be spent "on task?" Is it just the amount of time, or is pacing important too? Can students spend too much time at task? Many questions are left unanswered in the findings (Bossert, 1983).

The importance of the principal's contribution to the internal organization and functioning of schools has also been indicated by a variety of studies (see for instance, Gross and Herriott, 1965; Wellisch, Macqueen, Carriere, and Duck, 1978; Punch, 1970). In looking at the impact of principal leadership behaviors on teacher performance, different studies report that principals take either a facilitative (consideration or supportive) role or a directive (initiating structure) role. Kalis (1980) concludes that teacher morale is related to the consideration dimension of administrative behavior, as measured by the Leadership Behavior Description Questionnaire (LBDQ). In particular, personal interaction with and encouragement by principal have an impact on teachers. The perceptions teachers hold that the principal works closely with them on instruction correlates positively with teacher job satisfaction and positive attitudes (Cohen et al., 1977). Similar conclusions have been drawn by Holdaway who suggests that the administrative functions most relevant to job satisfaction include the provision of encouragement and support, the removal or reduction of irritants, and the granting of reasonable requests (1978). While the

above research indicates that administrators do have an impact on teacher morale and satisfaction, other factors such as staff cohesiveness and personal challenge may have a greater effect on morale (Brady 1976). There are, however, several studies in which supportive leadership had no relationship to performance ratings, productivity, or the motivation of subordinates (Filley et al. 1976).

In addition to the consideration dimension, structure also seems to be related to satisfaction. Hoy and others (1977) found that teachers generally desire and react favorably to administrative structure. Teachers desire definite rules and regulations, but it must also be noted that excessive supervision and tight enforcement of rules produce teacher resentment and dissatisfaction. Lortie (1975) found that teachers wanted principals to use their authority to facilitate teacher work. In the teachers' words, this meant that they wanted principals to "support them." Cohen and Miller (1980) also found that coordination was important in school settings. Effective principals were found to coordinate, discuss, and advise on instruction, while ineffective principals did none of these. Teachers judged that the ineffective administrator made poor decisions. The earlier studies concluded that the principal should be supportive and facilitative while leaving responsibility with the teacher, but now studies suggest that the principal ought to take responsibility and be more directive in the school's instructional program (Edmonds, 1979; Wellisch et al., 1978).

In contrast to the studies which affirm the influence of principals, another body of literature seriously questions the principal's involvement and influence in the technical core issues of schools. A number of scholars conclude that administrators exert only limited influence in the area of

instruction. Schools do not control the school work agenda and processes very well (Meyer and Rowan, 1979). A number of reasons are cited in support of this proposition. Inspection, supervision, and evaluation of classroom teaching by principals and superintendents is infrequent. This is confirmed in survey research (Rowan, 1982, p. 42) and observation studies of administrative work activities (e.g., Morris et al., 1981; Peterson, 1978; Wolcott, 1973). Principals spend their time working with students who are discipline problems and with teachers about noninstructional matters (Peterson, 1978); attending to logistics, external requirements, and social pleasantries (Sproull, 1979); and overseeing organizational maintenance and extra curricular activities (Martin and Willower, 1981). Peterson (1978) concludes that principals neither manage the workflow at the classroom level nor seek change or improvement through innovation or stabilization efforts.

Dornbusch and Scott (1975) in their study of evaluation suggest that characteristics of teaching and features of the work setting render controlling the work performances of teachers problematic. Teaching is complex (it entails many activities); the desired outcome of teaching varies enormously in clarity and precision; teaching is not predictable (we do not always know that a certain method or activity will lead to success); the work occurs in physical isolation from the supervisor; and principals communicate performance evaluations infrequently or when they do, they are in the form of "ceremonial congratulations" (Guthrie and Willower, 1973). Meyer and Rowan (1977) suggest that a "logic of confidence" operates; each level of the hierarchy assumes that what the lower level is doing makes sense. Principals offer another explanation. They claim they lack the skills or time to carry out instructional management tasks.

Beyond these explanations for the principal's lack of involvement in technical core matters, few school district policies specify the type of curriculum materials or the instructional methods to be used by the teacher. Or, when curriculum materials are specified, teachers may opt to supplant or supplement them with teacher-made or other published materials. In addition, teacher collective bargaining contracts increasingly limit management discretion to select materials and identify teaching methods (Goldschmidt, 1983). For example, such restrictions on management discretion in some school districts have resulted from teacher reluctance to use DISTAR or other direct instruction methods that have proved to be successful in promoting student achievement for lower ability level and disadvantaged students (Abt Associates, 1976, 1977; Becker and Carnine, 1980). This evidence suggests that even if administrators wanted to exercise more control over production activities, their efforts may be thwarted by collective bargaining agreements.

The work activity studies also have their limitations. They are criticized for their small samples, for concentrating on the superficial aspects of managerial work, for ignoring the content of administrative work, and for failing to evaluate administrative behavior and its consequences (Pitner, 1982).

The most striking deficiency across all of these studies is their failure to account for current leadership theory and research. The studies incorrectly assume that all school structures are the same; that all teachers or faculties are alike; that the work of teachers is organized in the same way in every school--or should be; and that all communities, or environments are identical. The studies concentrate on the invariant aspects of

administrator work and the invariant aspects of academically successful schools. Thus, neither line of inquiry is very helpful in understanding the variation in the influence potential of the principal in matters of instruction.

What we clearly know about leadership in organizations is that there is no one best way to lead. The question is not , Do or don't principals lead? or Can or can't principals lead? but Under what conditions can a principal lead? This problem must be addressed by looking at principal behaviors, in a variety of different school contexts, and with a sample large enough to permit generalizability of findings. Further, the investigation should proceed from a theoretical base relevant to hierarchical leadership in formal organizations.

Review of Leadership Literature

This suggests a need to review extant leadership theory and models to design a study for understanding and explaining the influence of the hierarchical superior (principal) upon the satisfaction, commitment and performance of subordinates (teachers). Before examining this literature, it is important to note that leadership is an imprecise term and is often used interchangeably with administration, management, power, and authority. Bennis suggests that the "concept of leadership eludes us or turns up in another form to taunt us again with its slipperiness and complexity. So we have invented an endless proliferation of terms to deal with it . . . and still the concept is not sufficiently defined" (1959, p. 259). Stogdill observes that "there are almost as many definitions of leadership as there are persons who have attempted to define the concept" (1974, p. 259). Yukl

notes that "leadership has been defined in terms of individual traits, behavior, influence over other people, interaction patterns, role relationships, occupation of an administrative position, and perception of others regarding legitimacy of influence" (1981, p. 2). Dubin asserts that "leadership must surely mean followership" that leadership does not exist without something called followership (1979, p. 225). Nevertheless, two assumptions appear in most definitions. These assumptions are that (1) leadership is a group phenomenon involving the interaction between two or more persons, and (2) it involves an influence process whereby intentional influence is exerted by the leader over followers (Yukl, 1981, p. 3).[1] Leadership theory has stumbled through the trait, behavioral, and situational approaches and the images of leader as orchestra conductor, quarterback, prince, hero, and superman (Jennings, 1960), spiney creature (Weick, 1978), and the Wizard of Oz (Ogawa, 1981). Leadership theory's justification is the belief that leadership has powerful effects on an organization's functioning (Pfeffer, 1977; Kerr, 1977). In the following section, we discuss the contributions of trait, behavioral, and situational approaches to the study of leader behavior.

Trait Theory

Early attempts to understand leadership led researchers to search for personal characteristics and traits that are consistently present or shared

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[1]This problem of the leadership concept is complicated in schools where a distinction is drawn between "instructional leadership" and other kinds. Scholars and practitioners disagree about what instructional leadership entails.

by effective leaders in formal and informal organizations. These traits include physical characteristics (such as height, appearance, energy level), personality (such as self-esteem, dominance, emotional stability), and ability (such as general intelligence, verbal fluency). The U.S. Army field manual, Military Leadership, and the popular bestseller, The Managerial Woman, are representative of the perspective that leaders--whether army officers or women executives--who succeed in their occupations have identifiable traits in common. These theories are based on the belief that the individual is more important than the situation or context.

Based on a seven decades of trait research, Stogdill (1948) concluded that only a limited number of traits appear to correlate with effective leadership. The traits with the highest positive correlations with leadership are intelligence, initiative, self-confidence, energy and activity, and task-relevant knowledge. For example, several of the studies showed that leaders who are more intelligent (as measured by intelligence tests) than their subordinates are more effective. A wide discrepancy between the IQs of the supervisor and subordinates, however, lessens the influence of the managerial leader (House and Betz, 1979). Further, intelligence of effective leaders was above-average but not of the genius level. A review of studies (which were conducted from 1900-1957) focusing on personality traits of leaders concluded that leaders tend to be more extroverted, dominant, masculine, conservative, better adjusted and have greater interpersonal sensitivity than non-leaders (Mann, 1959). In addition, "most successful leaders appear to have good health, be above average in height or well below it, and come from the upper socio-economic levels in society" (Handy, 1976, p. 90).

In another review of the trait literature, House and Betz (1979) drew three general conclusions. First, leadership exists only with respect to others, thus interpersonal skills are likely to be essential for successful influence attempts. Second, "leadership requires a predisposition to be influential," which means that such traits as dominance and ascendance are likely to be positively correlated with leadership. Finally, task objectives and organizational goals are most always a part of the exercise of leadership, thus the "need for achievement," "desire to excel," and "task-relevant ability" are hypothesized to be related to leadership.

In addition to these reviews, recent studies in a large international company have added another trait to these lists, the helicopter factor; that is the "ability to rise above the particulars of a situation and perceive it in its relation to the overall environment" (Handy 1976, p. 89). This can be likened to the difference between how the mouse and the eagle view the same country field. The effective leader is able to see the gestalt, while less effective leaders focus on the details.

It is interesting that although the major focus on traits of leaders was prominent in the 1950s, some scholars are returning to this ground, among them House and Betz. They contend that trait research needs to be continued because "the magnitude of the correlations between leader traits and criteria of leadership are as high and often higher than correlations between leader behavior and leadership criteria" (1979, p. 352).

A recent study conducted by Warren Bennis (1982) emphasizes traits that leaders exhibit. Based on interviews with 90 successful executives, Bennis identified six characteristics, or traits, these leaders shared. These characteristics include:

1. Vision. They had a strong vision of where the organization needed to go. They also had a strong outcome-orientation.

2. Communication and alignment. They were able to communicate their vision to their followers in special ways, perhaps through the use of metaphors.

3. Persistence. They were able to "stay the course." They viewed failure as an opportunity to learn.

4. Organizational learnings. They found ways and means to change.

5. Empowering others. They created a social system and environment that encouraged workers to do their best. They gave their workers the sense that they were at the heart of things, that they were an integral part of the organization and its progress (p. 55).

Yukl (1981) suggests that the investigation of leader traits has been more productive in recent years: "Greater progress can be attributed to the inclusion of more relevant traits, use of better measures of traits, examination of trait patterns rather than looking only at individual correlations, and the use of longitudinal research."

Despite the renewed interest, criticism of trait theory persists. Are personality traits antecedents of leadership or do they develop as individuals assume leadership roles? In addition to failing to identify a well defined list of traits--without exceptions--which are necessary and sufficient conditions for successful leadership, trait theory appears to be counter to the democratic and meritocratic norms prevalent in our culture. Trait theory implies an elite corps of leadership talent with inherited characteristics--the very frightening stuff from which movies such as The Boys from Brazil are made. Because scholars, in the large part, have failed to identify a set of personality traits that correlate with effective leadership, they turned to the leadership styles of managers. The assumption behind the style and behavior theories is that subordinates will perform more

effectively for managers who use a particular style of leadership. We examine these theories next.

Leader Style and Behavior

The actions of managerial leaders may be described in terms of behavior categories, managerial roles, or activity patterns. Managerial behavior has been studied by asking managers to maintain a record or diary of their activities (Carlson, 1951), by observing managers as they work for a sustained period of time (Mintzberg, 1973), by observing managers for brief intervals of time on random occasions (Kelly, 1964), by collecting critical incidents of managerial behavior from subordinates, supervisors and peers (Flanagan, 1951), and by asking managers, their supervisors or subordinates to respond to questionnaires that describe specific managerial behavior (Halpin and Winer, 1957). We will restrict our discussion to the theories and studies of managerial style that attempted to identify leader behavior or style instrumental for the attainment of group and organizational goals. Specifically, we consider the Ohio State University Leadership Studies, Likert's contributions, and the managerial grid. In addition, because there is little agreement across studies as to the categories of leadership behavior, we review an attempt by Yukl (1981) and his colleagues to integrate the studies and fill this void.

The Ohio State Leadership studies include several instruments designed to measure Leader Consideration (concern for subordinates' well-being, comfort and status) and Initiating Structure (structuring and defining the leader's and subordinates' roles). These instruments include the Leader Opinion Questionnaire (LOQ), Supervisory Behavior Description Questionnaire (SBDQ), and the Leader Behavior Description Questionnaire

(LBDQ). While Consideration and Initiating Structure are only two of the twelve scales that measure leadership behavior on the LBDQ, most of the research has focused on these two dimensions. (In the beginning of this chapter we noted studies which have relied on the LBDQ to gather data about the nature and effects of leader behavior of the principal.)

Some scholars claim that the LBDQ is not valid or particularly useful for understanding leadership behaviors. What are the criticisms of this instrument? We will highlight some of the more important reservations about the instrument. First, despite the word "behavior" in the name of the instrument, the LBDQ contains items far removed from specific behaviors and is more concerned with skills, traits, and personality attributes of the leader (such as, uncertainty tolerance, predictive accuracy, persuasiveness, and demand reconciliation) (Schriesheim, House, and Kerr, 1976). Second, the items for the most part, measure discretionary leader behavior as opposed to behavior which the leader can neither help nor control. This point is important in light of the work activity studies of school administrators which portray administrators as adapting and reacting to the requests of others, not initiating and manipulating opportunities. Third, items usually ask about the frequency of leader behaviors, less often about their magnitude, and never about the timing or appropriateness of structure or consideration to the particular task or work context (Schriesheim, House, and Kerr, 1976). Fourth, a serious deficiency of the research using the LBDQ concerns problems of inferring or determining the direction of causality. In other words, do considerate principals cause teachers to be more motivated and productive or do principals behave in a more considerate fashion when teachers perform well? The research findings do not clarify the direction of

this relationship. Schriesheim, House, and Kerr conclude after a thorough review of the instrument that the LBDQ "cannot be considered sufficiently valid to warrant [its] continued usage in leadership research" (p. 297). Yet, as Bridges (1981) notes in his review of research in educational administration, we continue to overly rely on the LBDQ in our field. We might add this is so primarily because a better instrument as yet has not been developed.

In addition to the major research program at The Ohio State University during the late 1950s and early 60s, studies at the University of Michigan Institute of Social Research focused on the relationship among leader behavior, group processes, and measures of group performance. The Michigan model was made up of four factors. The definitions for the four factors follow:

> Support. Behavior which increases subordinates' feelings of being worthwhile and important people.
>
> Goal Emphasis. Behavior which stimulates an enthusiasm among subordinats for getting the work done.
>
> Work Facilitation. Behavior which actually helps subordinates get the work done by removing obstacles and roadblocks.
>
> Interaction Facilitation. Behavior which builds the subordinate group into a work team (Likert, 1961).

Likert (1961) integrated the findings of the Michigan studies in the book New Patterns of Management. Likert identified five effective managerial practices: supportive behavior, group method of supervision, high performance goals, linking pin functions, and technical expertise functions. Likert concluded that most effective leaders are employee centered: "Superiors with the best records of performance focus their primary attention

on the human aspects of their subordinates' problems and on endeavoring to build effective work groups with high performance goals" (1961, p. 7). Power and responsibility are shared with the group (democratic style) as opposed to power residing solely with the leader (authoritarian style). Other approaches to leadership are very similar to Hemphill's and Likert's theories including McGregor's work (Theory Y) and Blake and Mouton's managerial grid (1964).

There appear to be several problems with the leadership style theories. First, most theories specify the result of desired leader behavior, not the behaviors that lead to desired outcomes. The manager is told what the finished product should look like, but not what to do to obtain the results. This is analogous to a cookbook full of photographs of gourmet meals without the recipes. Second, the consistent assumption underlying the style and behavior theories is that a single leadership style (such as, team management or Theory Y) is superior to other styles in all kinds of organizations (such as schools, hospitals or business corporations) and under all kinds of conditions (such as culture, environmental factors, or task characteristics). Third, each major study of leadership behavior has led to a different behavior taxonomy with only modest agreement across studies making it difficult to compare the findings. While the Consideration and Initiating Structure categories are the most widely used for understanding managerial leadership in a variety of contexts, they have been criticized for presenting too general and simplistic a picture of leadership: "They fail to capture the great diversity of behavior required by most kinds of managers and administrators" (Yukl, 1981, p. 121-22). This diversity is highlighted in the work activity studies.

In an attempt to reconcile the diverse findings of the aforementioned studies and to identify meaningful and measurable categories of leadership, Yukl has isolated twenty-three categories of managerial behavior. These behavior categories in the taxonomy are identified in Table 5 in Chapter 2. These behavior categories do not appear to be situation specific or overly broad and abstract. Nevertheless, sufficient research has not been conducted using the instrument in educational and non-educational settings to warrant claiming that these categories resolve the problems of identifying the realm of effective leadership behaviors or of specifying the appropriateness of leader behavior for a particular situation. Because of the failure of style and behavior theories to take the context of a leadership situation into account, scholars began to speculate an interaction between environment and leadership behavior. We examine the situational theories next.

Situational Theories

Situational or contingency theories of leadership posit that appropriate leader behavior depends, in part, on the situation. Thus, no one leadership style will prove effective in all contexts. Four significant contributions to the situational model are reviewed here: contingency theory, normative theory, path-goal theory, and substitutes for leadership theory.

Fiedler (1965) developed his contingency theory of leadership because of his disappointment with the results of research conducted on the differences in effectiveness between trained leaders and untrained leaders. Fiedler, consequently, developed a model of leadership that views group performance or effectiveness as dependent upon the interaction of leadership style and the favorableness of the situation. Fiedler identified two

significant leadership styles: task-oriented leadership and socio-emotionally oriented leadership. Task-oriented leaders are concerned with accomplishing the task above all else. Socio-emotionally oriented leaders are more concerned with maintaining good relations with their subordinates. Again, these notions are very similar to Initiating Structure and Consideration.

Fiedler measured leadership orientation with the Least Preferred Co-Worker (LPC) scale. Using bipolar adjective pairs following the semantic differential technique (Osgood, Suci, and Tannenbaum, 1957), leaders were asked to think of and describe the esteem in which they held his/her least preferred co-worker.

Relationship-oriented individuals tended to describe the least-preferred co-worker in more favorable terms than task-oriented leaders. The low-LPC leader shows a strong emotional reaction to people with whom he/she cannot work. Fiedler contends that a person who favorably describes a least preferred co-worker is able to see him/her as a person who might have some acceptable traits, thus indicating an interest in effecting strong interpersonal relations.

Fiedler identified three critical dimensions of a job to determine a situation's favorableness or unfavorableness: leader-member relations, task structure, and leader position power. Leader-member relations are favorable when the leader's subordinates are trusting and somewhat obedient. Task structure is favorable when the leader (and presumably the followers) know exactly what to do and how to do it. Finally, leader position power is high when the leader can distribute rewards and punishments freely. The higher the three situational factors, the more favorable the situation is for the

leader.

Fiedler argues, then, that leadership effectiveness or group performance depends on the interaction between leadership style and situation favorableness. For example, a low-LPC leader will be more effective when the situation is either highly favorable or highly unfavorable. A high-LPC leader is more effective in moderately favorable or unfavorable situations. Fieldler contends that when a mismatch between leadership orientation and the situation exists, it is easier to change the situation--through changes in responsibilities and power--than it is to change the leader's personality orientation, or what he has labeled "Engineer the Job to Fit the Manager" (1976).

There is some debate as to whether Fiedler's hypotheses have received empirical support. According to Steers (1981), research has generally demonstrated that relationship-oriented leaders are more effective when the situation is moderately favorable or unfavorable and task-oriented leaders are more effective under highly favorable or highly unfavorable conditions. Thus relationship-oriented leaders operate best in conditions of moderate situation favorability, and task-oriented leaders at the extremes, because they can take charge of a very unfavorable situation or merely direct when the situation is so favorable. On the other hand, Schriesheim and Kerr (1977) note that this theory is "probably the most widely known of all situational leadership theories" but raise serious questions concerning construct, content, and predictive validity (pp. 22-27). Further, quoting Ashour (1973), they assert that "the model is an atheoretical empirical generalization--it does not explain why its hypothesized relationship occurs, and it is therefore not a theory in almost anyone's sense of the word" (1977,

p. 55).

Path-Goal Theory of Leadership

Another contingency approach to leadership is the Path-Goal Model of leadership developed by House and colleagues (1971, 1974). This model focuses on how managers influence subordinate perceptions of their work, personal goals, and various paths to goal attainment. Leaders can facilitate task performance by showing subordinates how their performance can be instrumental in achieving desired rewards. The path-goal model builds heavily on the expectancy theory of work motivation.[2] The Path-Goal Model rests on two propositions: (1) the leader's function is supplemental and (2) the situation affects the motivational impact of specific leader behaviors (Schriesheim and Kerr, 1977, p. 14). This theory identifies situations in which directive, supportive, achievement-oriented, or participative leadership is most effective in promoting subordinate motivations and effort. The Path-Goal Model holds that effective leadership is a function of the interaction between leader behaviors and situational or contingency variables, such as subordinate characteristics and environmental factors (e.g., task characteristics, formal authority system, and characterization of primary work group) (Steers, 1981, pp. 271-72).

Little research on the Path-Goal Model has been conducted either in educational or noneducational settings. The studies that are available, however, lend some credence to the model. These studies suggest "that the

[2]Expectancy theory is based on two premises: (1) people subjectively assign values to expected outcomes and (2) motivated behavior is explained by ends people hope to accomplish and extent to which they believe their own actions contribute to producing preferred outcomes.

model is probably more complex than first thought and that additional variables, like conflict and structure, should be incorporated into future versions of the model" (Steers 1981, p. 271).

Kerr asserts that "situational approaches to leadership share the assumption that while the style of leadership likely to be effective will vary according to the situation, some leadership style will always be effective regardless of the situation" (p. 2). Kerr (1977) points out that the situational leadership theory least dependent upon the assumption that hierarchical leadership is always important is the Path-Goal Theory (House, 1971; House and Mitchell, 1974). This theory identifies situations in which directive, supportive, achievement-oriented, or participative leadership is most effective in promoting subordinate motivations and effort. House and Mitchell (1974) observe, however, that in certain work situations both goals and paths to goals may be clear. They warn that leader attempts to clarify either "will be both redundant and seen by employees as imposing unnecessary, close control" which may have negative consequences. Kerr is surprised that House and Mitchell never conclude that under these conditions leadership may not be necessary. Kerr elaborates that "subordinate attributes such as competence, knowledge, and experience may reduce requirements for leader-provided structuring information almost to zero, and that task-related characteristics such as inflexible regulations and invariant work methodologies may have the same effect" (1977, p. 3). These observations lead to the question: Is hierarchical leadership always necessary? Kerr (1977) and Pfeffer (1978) suggest that sometimes leadership does not matter.

Substitutes for Leadership

Kerr and Jermier (1978) propose that there are situations in which hierarchical leadership has no substantial impact on subordinate satisfaction, motivation, or performance. They suggest that the import of hierarchical leadership behaviors depends upon the characteristics of individuals, the characteristics of the work to be performed, or characteristics of the organizational structure. These variables act to influence which leadership style will permit the hierarchical superior to motivate, direct, and control subordinates while others act to moderate the superior's ability to influence subordinates. Kerr and Jermier identify two types of moderators, (1) "substitutes for leadership," conditions which serve in place of leadership, and (2) "neutralizers," conditions which counteract or make leadership pointless. The model suggests that, in some cases, the presence of substitutes or neutralizers, not leadership behaviors, may explain the presence or absence of desired end-results such as commitment, motivation, or performance. (See Figure 1.)

Kerr extracts the substitutes and neutralizers from micro- and macro-organizational theory. A preliminary set of substitutes and neutralizers for supportive and instrumental behavior based on Kerr's work was developed by Yukl (1981) and is displayed in Table 1.

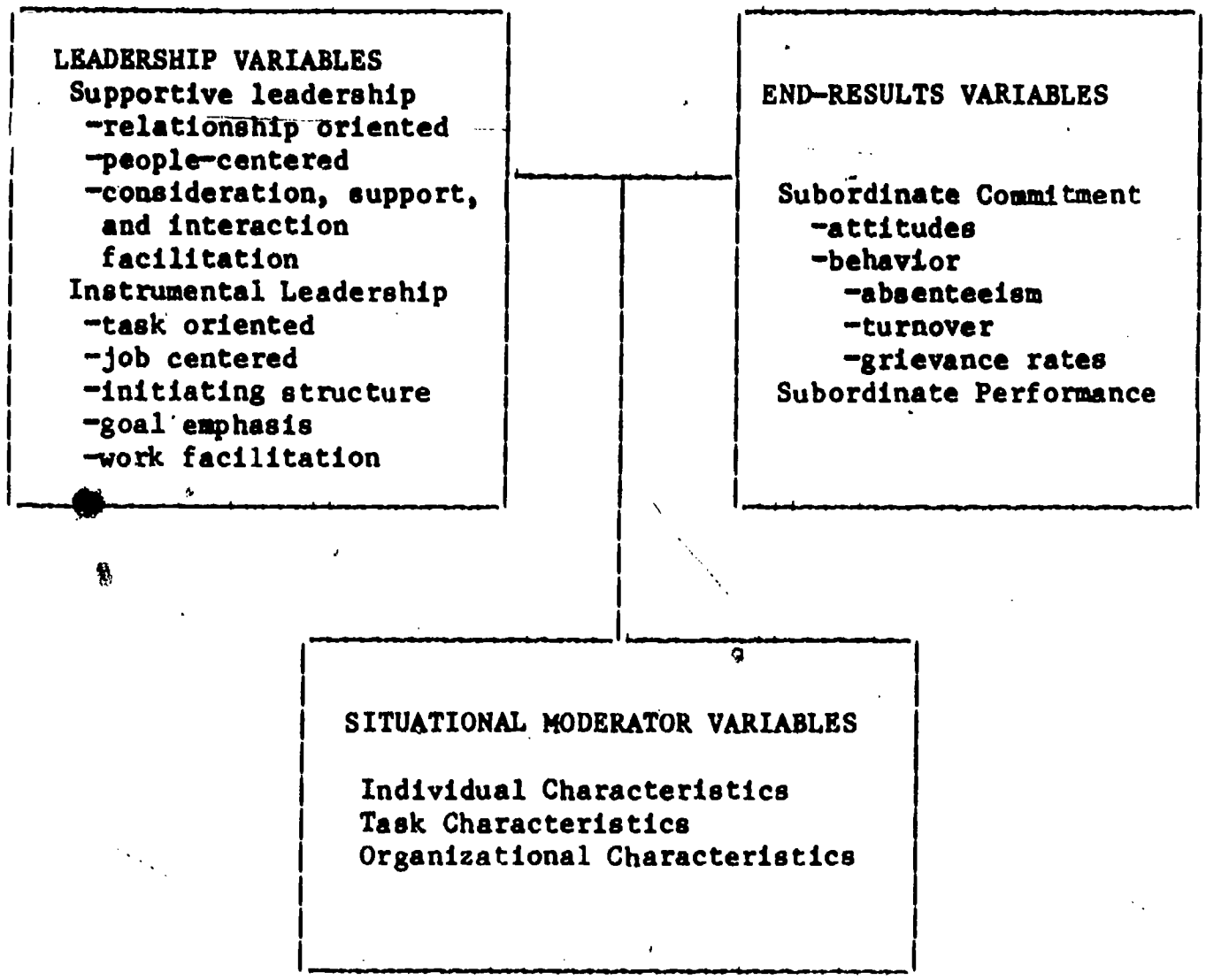

Figure 1. Kerr's Substitutes for Leadership.

Table 1. Potential Substitutes for Leadership [a]

Characteristics	May Substitute for the Leader's: Supportive Behaviors	Instrumental Behaviors
OF THE SUBORDINATE		
1. Ability, experience, training, knowledge		X
2. Need for independence	X	X
3. Professional orientation	X	X
4. Indifference toward organizational rewards	X	X
OF THE TASK		
5. Task clarity (unambiguous and and routine, methodologically invariant)		X X
6. Provides its own feedback concerning accomplishment		X
7. Intrinsically satisfying	X	
OF THE ORGANIZATION		
8. Formalization (explicit plans, goals, and areas of responsibility)		X
9. Inflexibility (rigid, unbending rules and procedures)		X
10. Highly-specified and active advisory and staff functions		X
11. Closely-knit, cohesive work groups	X	X
12. Organizational rewards not within the leader's control	X	X
13. Spatial distance between superior and subordinates	X	X

[a]From G. Yukl, Leadership in Organizations (Englewood Cliffs, N.J.: Prentice Hall, 1981), p. 163.

Substitutes for Leadership in Schools

Several of the conditions identified in the table appear to be present in school organizations: teaching is interesting and enjoyable (intrinsically satisfying task); principals appear to have modest control over the reward structure (low position power); teachers are not easily or frequently observed by principals as they perform their work (leader located apart from subordinates with only limited communication possible); feedback about how well a teacher is doing comes primarily from the student (feedback provided by the task); and collective bargaining agreements bring rigid rules and procedures for principals to follow in making teacher selection, assignment and utilization decisions (formalization and inflexibility). We believe these conditions are found to varying degrees in school organizations and may mediate the ability of principals to influence teacher behavior.

Specific examples of individual, task, and organizational conditions that act as substitutes or neutralizers follow. First, let us examine professionals in bureaucratic organizations. Scott (1966) observes that professionals resist bureaucratic authority and cultivate horizontal rather than vertical relationships. Goss (1969) adds that professionals will not accept directives regarding how to perform their work. They look to the professional peer group for advice and informal evaluations not to the hierarchical leader for recognition. Professionals also tend to take an instrumental view of the organization--their commitment to the organization is conditional and depends on the adequacy of the organization's facilities and program --travel money, parking, and clerical support (Scott, 1966). In other words, the attitudes and behaviors of professionals--their "professional orientation"--can reduce the importance of leadership by their

hierarchical superior.

Second, the model can be illustrated by looking at the reward structure of schools. As an example, we know from learning theory that reinforcement is a crucial element in behavior change. Rewards are considered to be a very important factor in controlling the performances of rats, monkeys, pigeons, and people (Kerr, 1977). The leader must be in position to control the allocation of rewards and punishments in order to reinforce desired behaviors and extinguish undesirable ones. Rewards in schools may conceivably be salary, prestige, and esteem, for example.

From Lortie (1975) and others we know that teachers purport to find their work interesting, enjoyable, and intrinsically satisfying. Further, Lortie notes that the "classroom is the major arena for the receipt of psychic rewards . . . . Much of a teacher's work motivaton will rotate around the conduct of daily tasks--the actual instruction of students" (pp. 104-106). Satisfaction derives from attaining the desired results with students. From Kerr and Jermier's theory we can identify two characteristics of teaching--feedback provided by the task and intrinsically satisfying tasks--which could potentially act as substitutes for leadership. Task-provided feedback will substitute for instrumental leadership. In this example, the principal does not need to tell the teacher how well he/she is doing because the teacher knows this from the evidence or, or lack thereof, of student progress. According to this model, intrinsically satisfying tasks substitute for supportive leadership. If teachers find their work enjoyable, the principal does not need to provide supportive leadership to make the job situation tolerable. Of course, the attractiveness of the working environment varies from school to school suggesting that in some cases

supportive leader behaviors may be necessary.

Although we noted that intrinsic or psychic rewards are important to teachers, extrinsic rewards are also attached to teaching. However, extrinsic rewards are distributed in a way that makes it difficult to influence their flow. For example, the two main criteria by which salary improvements are made (years of service and coursework) are determined by the teacher collective bargaining contract; teacher rewards are not based on performance; and teacher salaries are comparatively undifferentiated. Where teacher collective bargaining has taken hold, the principal has relatively little decision making prerogative in the allocation of salary improvements although he/she probably can allocate instructional materials, and to the extent not preempted by a collective bargaining contract, can assign a desired group of students or preferred extra duty as small tokens of appreciation (Goldschmidt, 1983).

The Research Problem

The problem, then, becomes to clarify those situations in which hierarchical leadership is important to teachers in the achievement of their goals. Specifically, we must identify conditions that mediate or enhance strong connections between the managerial and technical levels in schools, how these conditions vary from school to school, and how principal behavior varies in these contexts. The findings may suggest an alternative to the intellectual leap that effective schools are led by effective principals who follow a recipe of ingredients.

Scholars recognize that leadership does not come solely from the hierarchical position of authority, it comes from other places as well. The

great principal may recognize or create substitutes for his/her leadership--he/she need not personally supply structure, guidance, or good feelings.

Therefore, the question, arising from the debate on principal leadership in school organizations, that will be addressed in this study is:

> Under what conditions (e.g., individual, task, organizational, and contextual characteristics) does principal leadership behavior affect the motivation and commitment of teachers?

In particular, the study will attempt to test a series of hypotheses drawn from Kerr's formulation of the leadership problem in the context of public elementary schools. His propositions concern some 13 conditions which may substitute for, or neutralize, the principal's effectiveness in working with the school staff. To test them, it will be necessary to measure these moderating conditions as well as the principal's behavior as a leader (instrumental and supportive) and relevant "end-result" variables. The next chapter will report on the development of the measures and will describe the sample on which the study was conducted. The specific hypotheses tested in the study will be described in the succeeding chapter.

CHAPTER 2. METHODS OF STUDY

For this cross-sectional correlation study, data were collected from teachers and principals of a sample of elementary schools in Oregon and Washington. The data collection period covered the months of April and May of 1983. To secure the sample, the principal investigator personally telephoned superintendents to gain access into the districts. The principal investigator then met with the superintendent (or assistant superintendent in some cases) and a group of elementary principals in the school district's central office. The groups of principals varied from including all elementary principals in the district to a selected few. For the most part, principals "volunteered" their schools/teachers for participation in the study. When principals were selected by the superintendent, the criteria for selection were not always divulged to the researcher. In one case, principals were selected based on the superintendent's assessment of their performance. But, in another district, principals who would not be transferred to another school at the beginning of the next year were selected to participate.

Survey Administration and Sample

Surveys were given to principals for all full-time teachers in the schools. This meant that teachers with a reduced load assignment in a school or assigned to several schools were excluded from the study. The principals were asked to distribute the questionnaires to teachers who were to complete

them on their own time. The principals were also asked to complete a form requesting demographic data pertaining to the school (e.g., size, grade organization), themselves (e.g., age, sex, education) and teacher absenteeism and turnover rates in the school.

Both teacher and principal surveys were accompanied by a stamped, addressed envelope for individual return. On the surveys, teachers were assured that their individual responses would never be seen by principals or other district administrators and that administrators would receive no survey feedback identified by school. In follow-up telephone calls, principals were (1) asked to encourage teachers who had not yet responded to return their surveys and (2) reminded to complete the school data form.

In total, 1280 questionnaires were distributed to 57 schools in 13 districts in Oregon and Washington (with the majority of districts from Oregon). As few as one school but as many as 12 participated from the same district. Of that number, 524 questionnaires (teachers) and 57 school data forms were returned for a response rate of 41 percent and 100 percent respectively. Of that number, we determined that response rates for some schools were too low and the sample was reduced to 47 schools. The rule-of-thumb used to decide whether a school remained in the sample was the following: at least five teachers had to provide bonafide scores on the leadership instrument which enabled us to identify the leadership section of the questionnaire.

The elementary schools in this study were organized primarily kindergarten through grade six (92 percent) with a mean district expenditure per pupil of $2786 and mean student enrollment of 402 students. The racial composition of the schools was predominantly white with only one school

having a student population of over 10 percent Black and five schools with over 10 percent Asian. (See Table 2.)

The principals of these schools were male (85 percent), held a master's degrees plus additional credits (89 percent), were 47 years old, with an average of 12 years experience as an administrator and 8.7 years experience as a classroom teacher. (See Table 3.)

The teachers in the sample were female (84 percent), were 41 years old, and had continued their education beyond a bachelor's degree with 40 percent holding at least a master's degree, had an average of 14 years teaching experience with seven years in their present assignment. (See Table 4).

Table 2. Descriptive Information for Schools

TOTAL SCHOOLS	47
STUDENT ENROLLMENT	
Mean	402.14
Standard Deviation	99.60
Minimum	232
Maximum	627
PROFESSIONAL STAFF	
Mean Administrators	1.0
Mean Teachers	22.7
Minimum	12
Maximum	33
EXPENDITURE PER PUPIL	
Mean	$ 2785.86
Standard Deviation	379.01
Minimum	2084
Maximum	3332
GRADE ORGANIZATION (Per Cent)	
K-8, 1-8	2.5%
K-6, 1-6	92.5
K-3, 1-3, K-4	2.5
P-6	2.5
RACE COMPOSITION[a] (Per Cent White)	
90% or more	67%
80-89%	25
70-79%	4
60-69%	2
50-59%	0
40-49%	2

[a]One of 45 schools with over 10 percent Black, five of 45 schools with over 10 percent Asian.

Table 3. Descriptive Information for Principals

TOTAL PRINCIPALS	47
SEX (Per Cent)	
Male	85%
Female	15
EDUCATION LEVEL (Per Cent)	
Less than MA	0%
MA	2
MA Plus Credits	89
Doctor's Degree	9
AGE	
Mean	47.36
Standard Deviation	7.41
Minimum	30
Maximum	60
ADMINISTRATIVE EXPERIENCE (Ywea)	
Mean	12.30
Standard Deviation	7.16
Minimum	1
Maximum	27
PREVIOUS ADMINISTRATIVE EXPERIENCE (Per Cent)	
None	79%
Counselor	4
Consultant	4
Dept. Chair	2
Teaching Principal	2
Central Office	9
TEACHING EXPERIENCE (Years)	
Mean	8.70
Standard Deviation	3.96
Minimum	2
Maximum	27

Table 4. Descriptive Information for Teachers

TOTAL TEACHERS	458
SEX (Per Cent)	
Male	16.2%
Female	83.6
Not ascertained	.2
EDUCATION LEVEL (Per Cent)	
BA Degree	1.8%
BA Plus Credits	57.9
MA Degree	7.6
MA Plus Credits	32.5
Doctor's Degree	.2
AGE	
Mean	41.1
Standard Deviation	9.7
Minimum	23
Maximum	67
TEACHING EXPERIENCE (Years)	
Mean	14.05
Standard Deviation	7.47
Minimum	1
Maximum	41
TENURE (Years in this school)	
Mean	7.00
S.D.	5.31
Minimum	1
Maximum	27

Measures

The purpose of this study was to investigate the relationship between elementary principal leadership behavior and teacher commitment to the school and to determine if specific non-leader sources of influence (the substitutes/neutralizers construct) mediate or lessen the importance of the principal for exerting either positive or negative influence over teacher attitudes and behavior. Existing instruments were used--with some modification for the school organization--to tap the independent variable of leadership behavior, the dependent variable organizational commitment, and the mediating variable substitutes/neutralizes for leadership (hereafter called "substitutes"). These instruments will be described in detail as will our preparatory analysis for identifying key variables.

Leadership Instrument

Principal leadership behavior was measured using an instrument developed by Gary Yukl (1981). The Yukl instrument (Management Behavior Survey) contains 115 items which represent 23 categories (or scales) of management behavior (5 items per category). Table 5 lists the dimensions.

Table 5. Yukl's Management Behavior Categories

1. Emphasizing Performance
2. Showing Consideration
3. Career Counseling
4. Inspiring Subordinates
5. Providing Praise and Recognition
6. Structuring Reward Contingencies
7. Clarifying Work Roles
8. Goal Setting
9. Training-Coaching
10. Disseminating Information
11. Encouraging Decision Participation
12. Delegating
13. Planning
14. Innovating
15. Problem Solving
16. Work Facilitation
17. Monitoring Operations
18. Monitoring the Environment
19. Representing the School
20. Facilitating Interaction
21. Managing Conflict
22. Criticizing
23. Administering Discipline

The Yukl instrument was modified slightly (e.g., the word "principal" was substituted for "supervisor," "teacher" for "employee") to be more suitable for the school organization setting. The following alternatives allow responding teachers to report how often the principal exhibits behaviors described by the items:

	Category Weight
Never	1
Seldom	2
Sometimes	3
Usually	4
Almost Always	5
Don't Know or Not Applicable	-

(A full copy of the modified instrument is in Appendix A). Our thought was that certain of these categories would represent the two dimensions of leader behavior we sought to measure, instrumental and supportive leadership. Consequently, preliminary analyses were directed toward that end.

Responses of each teacher to the five items comprising a leadership category were summed for a category score. (Response alternatives were weighted 1-5, as indicated above.) Because of the large number of missing values for certain items (either "Don't Know or Not Applicable" selected or no response was given), each scale had to have less than three missing items to obtain a valid scale score.[3]

A factor analysis was then conducted on the scale scores to determine which categories represented dimensions that might be interpreted as instrumental or supportive. As a result of the problem of missing values, seven of the 23 scales had to be eliminated from the factor analysis. These management behavior categories deleted include: structuring reward contingencies, providing training and coaching, monitoring the environment, representing the school, managing conflict, criticizing, and administering discipline. Even by loosening the criteria for a valid score, the sample was reduced from 514 to 444 teachers for the factor analysis.

Only two common factors could be extracted from the intercorrelation matrix before the eigenvalues dropped below unity, which accounted for 56.4

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[3]Yukl's scoring practice was to recode "Don't Know or Not Applicable" to "Never." We did not follow this scoring procedure.

and 6.3 percent respectively of the total variance. Eight scales best defined the two dimensions, as shown in the rotated factor matrix of Table 6.

Table 6. Varimax Rotated Factor Matrix for Management Behavior Survey (Yukl revised by Pitner)

Variables	Factor I	Factor II
Y1	.71	.14
Y8	.60	.27
Y13	.71	.28
Y14	.74	.21
Y17	.65	.24
Y2	.30	.76
Y11	.24	.72
Y12	.15	.59
Y3	.61	.37
Y4	.65	.52
Y5	.50	.59
Y7	.64	.40
Y10	.43	.51
Y15	.65	.41
Y16	.59	.33
Y20	.58	.39

The five categories loading heavily on the first factor include:

emphasizing performance (Y1),
setting goals (Y8),
planning (Y13),
innovating (Y14),
and monitoring operations (Y17).

These variables resemble instrumental leadership and indicate efforts on the part of the principal to structure teacher work and performance. The

variables loading highly on the second factor include:

showing consideration (Y2),
encouraging decision participation (Y11),
and delegating (Y12).

These variables represent supportive leadership and indicate efforts on the part of the principal to be helpful, participative, and to grant autonomy to teachers. The eight remaining category scores did not load dominantly on one or the other of the two factors:

career counseling (Y3),
inspiring subordinates (Y4),
providing praise-recognition (Y5),
clarifying work roles (Y7),
disseminating information (Y10),
problem solving (Y15),
facilitating work (Y16),
facilitating interaction (Y20)

In light of the successful separation of the Yukl scales into sets corresponding to the two forms of leadership of the Kerr theory, individual teacher reports were averaged for instrumental leadership (over Y1, Y8, Y13, Y14, Y17) and for supportive leadership (over Y2, Y11, Y12), and the individual teacher scores were aggregated by school to represent the leadership style of the principal. Ten schools in the original sample of 57 had too few teachers reporting on the principal to furnish dependable measures of leader behavior, and those schools were dropped from the study. (We required that there be at least 5 teachers who described each principal.) Descriptive statistics for the leadership behavior scores of the remaining 47 principals are given in Table 7.

Table 7. Descriptive Statistics for Leadership Behavior (School Level)

	Mean	Standard Deviation	Range Min.	Range Max.	Inter-rater Reliability
Instrumental Leadership	3.77	.42	3.04	4.77	.768
Supportive Leadership	4.13	.40	2.39	4.41	.765

Substitutes Instrument

We used an instrument developed by Kerr (1976) to tap the substitutes/neutralizers construct in order to test whether nonleader sources of task structure, direction, and support weaken the causal link between principal leadership behavior and teacher commitment. The Kerr instrument was modified to reflect school roles and tasks; also we added a few items of our own. The questionnaire included 13 scales of three to seven items each. (See Appendix B). These scales include substitutes characteristic of the teacher, the teaching task, and of the organization structure, parallelling the 13 substitutes and neutralizers of the Kerr theory discussed in Chapter 1. (See Table 1 on p. 23 for their listing.) Individual attributes which may act as substitutes-neutralizers for hierarchical leadership include ability-experience-training, professional orientation, indifference toward organizational rewards, and need for independence. Task characteristics which may act as substitutes include task clarity, task provided feedback,

and intrinsically satisfying tasks. Organizational characteristics which are believed to act as substitutes include formalization, inflexibility, highly specified and active advisory-staff functions, cohesive work group, organizational rewards not within leader's control, and spatial distance between superior and subordinate.

Consistent with the Yukl instrument, a five point scale included the following response choices:

	Category Weight
Never	1
Seldom	2
Sometimes	3
Usually	4
Almost Always	5
Don't Know or Not Applicable	-

Upon examining teacher responses to the questionnaire form, we noted a high frequency of "Not Applicable" responses for some items. For some reason, these questions did not bring forth any response. Three examples illustrate this problem and how we dealt with it. First, some items were confusing because their wording did not allow meaningful use of the response alternatives we offerred. An example of this type of error follows:

> I cannot get very enthused about the rewards offered or about the opportunities available in this school.

"Never" or "Almost always" or the other alternatives were inappropriate for the item. We discarded the several items of this variety.

Second, the large number of "Not Applicable or Don't Know" responses for some items was inconsistent with our expectations. An example fitting this situation was found for the item:

> My chances for a salary increase depend on my principal's recommendation.

This item prompted our further examination because in this sample, all teachers work in districts covered by collective bargaining agreements. Increases in teacher salaries may result in three ways. First, each teacher will receive any negotiated cost-of-living or across-the-board increase. Such increases are negotiated between the board of education and the teacher union. Principals do not influence the receipt of these increases by teachers. Second, teachers receive increases in salary by meeting negotiated standards for additional educational degrees and training. Again, these standards are set in the contract (outside the influence of the principal) and are administered by district personnel staff. Third, teachers receive salary increases for performance/experience unless their performance is rated unsatisfactory. Principal evaluations determine whether a teacher receives this type of salary increase. It is, however, rare for a teacher to be rated unsatisfactory and be denied the step increase on the salary schedule. Therefore, it is reasonable to conclude that the teachers in this sample do not, in fact, rely on the principal for salary increases. In this case, the "Not Applicable" responses were recoded as "Never."

Other items evoked responses which suggested the item was not appropriate for the sample. An example follows:

> My chances for promotion (such as to department chair, teacher leader, administration,) depend on my principal's recommendation.

This item elicited a number of anecdotal comments from teacher respondents

such as, "Administration is not a promotion...it is not better than teaching, it is different." We concluded that teachers do not necessarily perceive movement away from teaching as a promotion. In this case, recoding would not be feasible so the item was dropped from analysis.

In total, four items were deleted and four were recoded. A factor analysis was conducted on the remaining 56 items. Even by deleting and recoding, however, only 175 of the original 514 teachers responded validly to all items, limiting the N on which the intercorrelations were based. Thirteen factors were extracted and rotated by the Varimax procedure. The resulting matrix of factor loadings is displayed in Table 8. (Just the loadings greater than $\pm$.30 are shown.)

Inspection of the matrix indicated that the configuration of item loadings was isomorphic with six of Kerr's *a priori* scales, in the sense that all (or most) of the items written for the scale loaded heavily on a distinct factor. In those cases, we retained items with the highest loadings to comprise the respective scales. These were Ability/Experience, Professional Orientation, Organizational Inflexibility, Advisory/Staff Functions, Cohesive Workgroups, and Spatial Distance between Principal and Teachers.

Items of two of Kerr's scales did not load prominently on any distinct factor (Attractiveness of Organizational Rewards and Need for Independence) and were unscored in the study, while two other scales (Task Clarity and Task Feedback) were merged into one by virtue of their loadings on a single factor.

Table 8. Factor Loadings (Rotated) for 56 Substitutes Items

Item	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII
Ability/Experience													
1										.52			
2										.62			
3										-.43			
Professional Orientation													
4		.32				.46							
5						.64							
6						.56							
Attractiveness of Rewards													
8													
9			-.34		.34								
Task Clarity													
10									.49				
11													
12									.55				
13									.44				
14													
15				.31								.32	
Task Feedback													
16									.43				
17													
18									.64				
Intrinsic Rewards													
19			.61										
20			-.31										
21		.32											
Organizational Formalization													
22		.39											.59
23		.41											.32
24		.33											.41
25		.54											
26		.65											
27		.50											
28		.50											
29				.75									
30				.74									
Organizational Inflexibility													
31					.66								
32					-.60								
33					.53								
Advisory/Staff Functions													
34						.67							
35											.56		
36											.76		
37											.34		
Cohesive Workgroups													
38	.68												
39	.64												
40	.73												
41	.73												
42	.82												
Principal Control of Rewards													
43												.51	
44												.61	
46							.89						
47							-.36						
49	-.35									-.37			.30
50				.30	.36								
52							.87						
53			.70										
54			.52										
Spatial Distance													
55								.75					
56								.70					
57	.30							.54					
Need for Independence													
58										-.34			
59										.33			
60										.36	.32		

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII

For the remaining three of Kerr's original 13 scales (Organization Formalization, Principal Control of Rewards, and Intrinsic Rewards), the associated items loaded on several factors. Through detailed analysis of item content in light of the loading patterns, it was possible to reassemble the items to provide meaningfully coherent scores for each scale, as indicated in Table 9. (Wording of the items can be found in Appendix B.) In the end, ten scales were constructed from 41 of the questionnaire items to correspond exactly or approximately to the substitutes/neutralizers dimensions of the Kerr theory.

Scoring was accomplished by summing teacher responses (weighted from 1 to 5) to items on each scale and dividing the sum by the number of items on which it was based. Weights for some items were reversed (Items 3, 20, 32, 40) to reflect their inverted wording, and responses to others were recoded (Items 8, 43, 46, 47, 52) as previously described. In general, scoring was

Table 9. Substitutes Factors and Items

Scale		Items
S1	Ability-Experience	(1,2,3)
S2	Professional Orientation	(4,5,6,34)
S3	Task Certainty/Feedback	(10,12,13,16,18)
S4	Intrinsic Satisfaction	(19,20,53,54)
S5	Formalization	(22,23,24,25,26,27,28)
S6	Rule Inflexibility	(31,32,33)
S7	Staff Availability	(35,36)
S8	Cohesive Work Group	(38,39,40,41,42)
S9	Principal's Position Powers	(43,44,46,47,52)
S10	Spatial Distance	(55,56,57)

contrived so that high values were consistent with the meaning implied by the

names of the scales. A high score meant the teacher had a strong Professional Orientation or a high level of Intrinsic Satisfaction, for instance. Except for Principal's Control of Rewards, high values also represented the presence of substitutes or neutralizers, low values their absence. The rule for deciding how many items would be needed to obtain a valid scale score varied from scale to scale because of the unequal number of items in the scales. Our principle was to demand more valid responses in the shorter scales. Besides calculating individual teacher scores, we aggregated them for school means on the ten dimensions, permitting analyses to proceed at either the teacher or school level.

Means and standard deviations of the teacher- and school-level distributions are given in Table 10, along with appropriate reliability

Table 10. Means, Standard Deviations, and Reliabilities of Substitutes Scales

	Teacher Level (N~450)			School Level (N=47)		
Scale	Mean	S.D.	Reliability[a]	Mean	S.D.	Reliability[b]
S1	4.02	.58	.60	4.03	.20	0
S2	2.54	.79	.71	2.52	.29	0
S3	4.58	.54	.63	3.58	.17	0
S4	4.20	.63	.65	4.20	.24	.20
S5	3.84	.57	.71	4.00	.24	.33
S6	2.38	.70	.63	2.36	.34	.51
S7	2.37	.90	.66	2.38	.39	.40
S8	3.24	.90	.85	3.21	.40	.44
S9	2.40	.82	.62	2.36	.48	.74
S10	3.38	.85	.73	3.41	.44	.62

[a]Internal consistency estimate (Cronbach's Alpha).

[b]Inter-rater estimate.

estimates. Internal consistency reliabilities are modest, ranging from .60 to .85. Item composition of the scales, of course, had been established by the preceding factor analysis, thereby assuring maximum coefficients. More dependable estimates would require cross-validation of the instrument with a new sample.

The inter-rater reliabilities in Table 10 are exceptionally low across the ten scales. The zero reliabilities of the first two scales, Ability-Experience and Professional Orientation, might be expected, since the dimensions describe properties of individual teachers and there is no reason to expect school staffs to be homogeneous with respect to those attributes. The zero or essentially zero reliabilities for S3 and S4, Task Certainty-Feedback and Intrinsic Satisfaction, can be viewed in the same way. While the items were supposed to measure characteristics of the teaching task itself, a reading of the items makes it apparent that they reference individual feelings about the work. (Indeed, one might wonder whether any of Kerr's substitutes/neutralizers dimensions relating to task properties would be relevant in settings where all respondents were performing the same task.)

The generally unsatisfactory inter-rater reliabilities for the remaining six scales, whose items explicitly call for teachers to describe properties of the organizational environment they presumably share, can be interpreted in several ways: (a) the environment (including principal relations with teachers) is not homogeneous at all, expecially in large

schools; rather, it consists of several sub-environments; (b) schools and principals of the sample differ very little with respect to these chracteristics; (c) scale items elicit responses heavily imbued with affective feelings of teachers; that is, they describe psychological states of individual respondents more than they describe environmental properties. Whatever the roots of "rater error" may be, and they probably differ from scale to scale, the problem is sufficiently severe that the likelihood of finding significant relationships with other variables is appreciably diminished.

Commitment Measures

The dependent variables for this study included organizational commitment, absenteeism, and turnover. According to theory, two dimensions of organizational commitment--attitudinal and behavioral--can be discerned and measured. Organizational commitment was measured using an instrument developed by Porter, Mowday, Steers, and Boulian (1974) known as the Organizational Commitment Questionnaire (OCQ). This instrument had been modified earlier for the school situation by Giduk (1982). The modification was slight: the word "school" was substituted for "firm" and "teach" for "work" (See Appendix C). Fifteen items tap feelings about the organization--the extent to which a teacher "buys into" the goals of the school and intends to remain. A seven-point scale was used to allow the responding teachers to describe their feelings about the school in which they work. These response options were:

	Scoring Weight
Strongly Disagree	1
Moderately Disagree	2
Slightly Disagree	3
Neither Disagree nor Agree	4
Slightly Agree	5
Moderately Agree	6
Strongly Agree	7

For scoring, weights were inverted for the several items with reversed wording (Items 3, 7, 9, 11, 12, 15). The sum of 15 items was computed and divided by the number of valid responses. (We required that at least nine items be answered.) Large numerical values indicate strong commitment to the school. Descriptive statistics for the OCQ are displayed in Table 11, based on 456 teachers or on 47 schools. We also calculated a coefficient indicating the extent to which the OCQ scores of teachers were alike within the schools. (The calculation was identical to an inter-rater reliability coefficient, but, considering that OCQ scores are "self-ratings" rather than ratings of principals or other school-level properties, it should not be construed as an estimate of the OCQ's reliability.) That coefficient turned out to be .59, which is a remarkably high value, especially when viewed in the light of the mostly lower values for the substitutes scales. It indicates that teachers of a school tend to have similar levels of commitment to the organization. Whether this is due to the inclination of schools to attract teachers of a kind to their staffs or to a bona fide "school effect" on teacher sentiments, we do not know. It does suggest, though, that it is appropriate to use staff means on the committment measure and conduct analyses at the school level.

Table 11. Means, Standard Deviations, and Range for the OCQ Scale

	Teacher Level (N=456)	School Level (N=47)
Mean	5.59	5.59
Standard Deviation	1.03	.51
Minimum	1.60	4.40
Maximum	7.00	6.32

In addition to this measure, purported behavioral indicators of teacher commitment--absenteeism and turnover rate--were secured at the school level. These data were obtained from reports from the principal and verified with the district personnel office. These data were difficult to get for several reasons. Schools do not maintain records of teacher absences but file reports with the central office. Records of teacher absences were not easily retrievable unless handled by a centralized computing system. Principals know more or less how often teachers are absent (especially in elementary schools which typically have smaller faculties). Also compounding the problem is the proliferation of absence categories and the lack of consistency among school districts in their definition and application. The categories of short-term absences, which "correspond" to reasons for the absence, include: sick leave, professional leave, personal leave, emergency leave, critical illness, and bereavement. In Oregon Revised Statutes, Section 342.596, "sick leave" is defined as "absence from duty because of a school employee's illness or injury." The district may expand the definition

to mean personal illness or injury without regard to person (i.e., a teacher may use paid sick leave because a child is ill). The remaining leave categories are set by the teacher collective bargaining agreement and, thus, vary among districts in availability and criteria for use. For example, "critical illness" (which may not be used for personal illness of teachers but for that of other family members) may either mean that recovery from an illness or injury is uncertain (the hospital definition) or, that in the judgment of a physician, the illness or injury is serious. In one district, "personal leave" may be used for any reason but limited in use in another. Hence, one individual may take personal leave to attend a conference whereas another uses the day to go fishing or sell real estate. The reason for the absence would not be known or recorded unless the teacher were seen in any of these places. In one school, teachers were absent frequently for professional development activities. Thus, the high percentage of absences in that school was not a valid indicator of "lack of commitment." (These district-sponsored absences may actually serve to increase commitment or reduce work-related stress of the inclination to use sick leave days.) Finally, in Oregon there is a high incentive not to use sick days as they are a noteworthy factor in the calculation of retirement benefits. In conclusion, teacher absences in schools are difficult to interpret and monitor and especially difficult to report. We believed the reports were undependable and, therefore, decided to drop these as dependent variables and measures in our analysis. To use teacher absence (or turnover) as a criterion variable would require a more sophisticated reporting procedure

than we used in the study.

Summary

In addition to giving details of the 47 elementary schools whose principals and staffs served as "subjects" of the study, the chapter has described our derivation of measures of variables to be used for assessing the moderating effects of individual, task, and organizational conditions. The Yukl instrument proved to be a satisfactory basis for measuring the instrumental and supportive dimensions of principal behavior, while our adaptation of the Kerr instrument to school settings enabled us to measure 10 of the 13 substitutes/neutralizers conditions originally proposed. (Psychometric properties of the measures, however, were not strong.) Although we had hoped to measure effects of leadership on both attitudes and behavioral attributes of teachers, the behavioral indicators (turnover and absenteeism) proved fickle and we were obliged to rely on the organizational commitment scale developed by Porter and colleagues as the sole "outcome" variable.

In the next chapter we turn to the specific hypotheses of the study, the analysis procedures we employed (hierarchical multiple regression), and results of the statistical analyses.

CHAPTER 3. ANALYSIS AND FINDINGS

We start by outlining the operational hypotheses regarding substitutes for leadership tested in the study, based on the operational definitions of the key constructs discussed in the preceding chapter, and follow by describing the analytical procedure used for testing them. Then we will present the results of the analyses.

Hypotheses

Kerr's formulation of the moderating effects of the substitutes/neutralizers, summarized in Chapter 1, may be rephrased as a conditional relationship for purposes of test. Specifically, the theory proposes that the effect of the leader's behavior, L, on subordinate motivation or performance, P, will be less in the presence of substitutes, S, than in their absence. Since the substitutes are usually measured continuously, as in the present study, an equivalent phrasing predicts that the magnitude of the relationship between L and P is contingent on the level of the substitute, such that the strength of the relationship diminishes with an increase in S. The expectations can be depicted graphically as a three-dimensional surface, as in Figure 2.

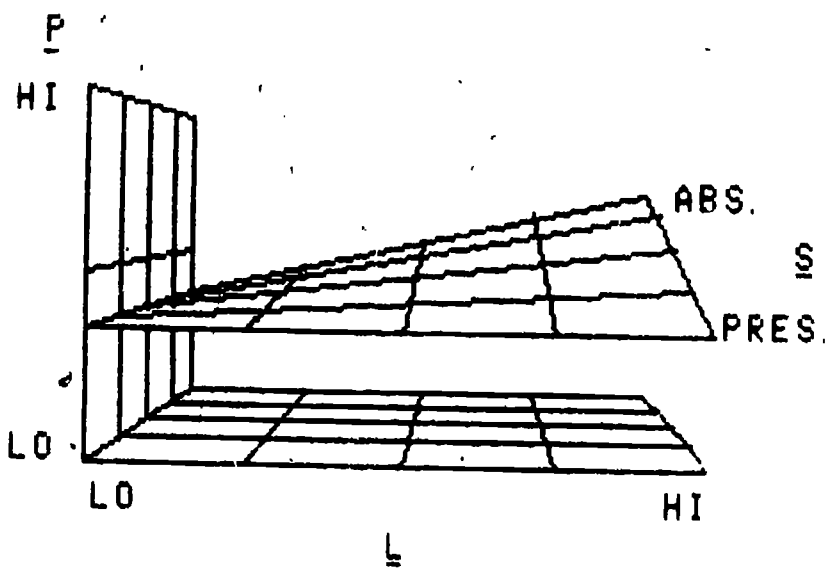

Figure 2. Three-dimensional representation of predictions.

To illustrate, consider Instrumental leader behavior as L and Organizational Commitment of teachers as P, these represented by the horizontal and vertical dimensions of the graph, respectively, and consider the staff's Ability/Experience level as the S in question, shown as the depth dimension. An increase in the principal's instrumental behavior (from left to right in the figure) is expected to be accompanied by an increase in the elevation of the staff's commitment, but only when the staff is relatively inexperienced (the back part of the surface). When the staff is highly experienced, as represented by the front part of the surface, variation in instrumental behavior has no effect on the elevation of organizational

commitment.

Table 12. Substitutes Expected to Moderate Relationship of Commitment and Instrumental or Supportive Principal Behavior

Substitute[a]	Supportive	Instrumental
S1 Ability/Experience		X
S2 Professional Orientation	X	X
S3 Task Certainty/Feedback		X
S4 Intrinsic Satisfaction	X	
S5 Formalization		X
S6 Rule Inflexibility		X
S7 Staff Availability		X
S8 Cohesive Work Group	X	X
S9 Principal Position Power	X	X
S10 Spatial Distance	X	X

[a]Except for S9, low score signifies absence of substitute.

Table 12 identifies the specific variables that Kerr and Jermier propose as substitutes for, or neutralizers of, the two forms of leader behavior, stated in terms of the particular measures used in the present study. The table parallels Table 1 in Chapter 1. It identifies 14 such pairings, each of which will be independently examined. We should note that in hypotheses implicating Principal's Position Power (S9), unlike the other substitutes, a high score represents the relative absence rather than presence of the substitute.

Analysis Procedures

The surface shown in Figure 2 is defined by the following equation:

$$P = b_1(L) + b_2(S) + b_3(L*S) + c \quad ,$$

where P is the Organizational Committment score, the b's are parameters governing the plane's shape, and c is a constant representing its overall elevation. The equation's third term is formed by the product of L and S, as the symbols suggest. Parameters of the equation have the congenial property of being estimatable by multiple regression, using Ordinary Least-Squares to obtain a fit. When the regression is performed hierarchically, entering the third term after the first two, a direct test can be made of its contribution to the prediction (Kerlinger & Pedhazur, 1973). A significant increment in the explained variance associated with it suggests that L and S combine interactively to affect P--that the slopes at the back and front of the surface are not parallel. In that event, it is necessary, of course, to evaluate the prediction equation (or examine the signs on the paramter estimates) to assure they are in accord with the substantive prediction. A roughly equivalent procedure sometimes followed by researchers is to dichotomize the sample on S and to test the difference between the zero-order correlations of L and P for the two halves.

Some investigators (e.g., Howell & Dorfman, 1981) screen the indicators of leader behavior and of potential substitutes for the significance of their bivariate correlations with the dependent variable, P, retaining for further examination only those reaching a particular probability criterion. Although we show the correlations, we have not followed this practice. Under certain circumstances relating to the relative magnitudes of the b coefficients and levels of L and S prevailing in

the sample, an interactive effect could render one or the other of the correlations zero in the bivariate space, or at least statistically insignificant. In an extreme case, both correlations could be exactly zero, even though a true interactive effect were present.

A more problemmatic issue concerns the level at which analyses are to be performed--the individual teacher level or the school level. This is essentially a theoretical issue rather than one merely of the mechanics of analysis, but the Kerr-Jermier formulation does not address it explicitly. While leader behavior rather unequivocally refers to a property of the school principal, and we will treat it as such, Organizational Commitment might be regarded either as an individual or group property. Had we measured certain other "end-result" variables mentioned by Kerr and Jermier (1978), such as turnover or grievance rates, the variables logically (or customarily) characterize the staff as a whole. The substitutes variables are a mixture. Some are explicitly attributes of individuals (Ability/Experience and Professional Orientation), while others are attributes of the staff collectively or of the organization proper, including Formalization, Rule Inflexibility, Staff Availability, Cohesive Work Group, Principal's Position Power, and Principal's Spatial Distance. The content of the rating scales reflects the difference. Still another set of substitutes reference the nature of the task in which subordinates are engaged--presumably the task of teaching, which is common to all respondents in our study. As we noted in Chapter 2, however, the two for which we were able to develop scales (Task Certainty/Feedback and Intrinsic Satisfaction) may better be regarded as

measuring attributes of individual teachers.

In the end, we conducted analyses at both the individual and school levels. The school-level analyses used staff means of Organizational Commitment and mean ratings of the several substitutes as terms in the equation; effectively, schools were unweighted by staff size (or, more exactly, by the number of responding teachers) and N = 47. Individual-level analyses used the disaggregated substitutes and Organizational Commitment scores, although we retained the aggregated measures of Instrumental and Supportive leader behavior to avoid a purely psychologistic investigation. Relationships in the teacher-level analyses necessarily are weighted by the number of respondents in the schools, and the N's ranged downward from 454 (to 420) by virtue of missing data on some measures. In the report of results to follow, we give primacy to the school-level analyses.

Results

Principal Behavior and Staff Commitment

Before taking the substitutes/neutralizers into account, we will report our analyses of the overall effects of Instrumental and Supportive principal behavior on the Organizational Commitment (OCQ) of their respective teaching staffs. The following figures show the zero-order correlations among the three variables measured as school means (N = 47).

r

	Supportive	OCQ
Instrumental	.42	.36
Supportive		.48

Both dimensions were positively correlated with Organizational Commitment in the sample, and more than modestly so in the case of Supportive behavior.

Since Instrumental and Supportive leadership were themselves correlated, we conducted a multiple regression analysis to weigh their relative contributions to the prediction of Commitment. (See Table 13.) The Beta coefficients demonstrated that Supportive behavior was by far the more important predictor. Indeed, the b coefficient for Instrumental behavior was less than twice its standard error, and the coefficent of multiple correlation for the two together, .51, was not much greater than the zero-order correlation for Supportive behavior, .48.

Table 13. Regression of Organizational Commitment (School Means) on Two Dimensions of Principal Behavior (N = 47)

Predictor	Beta	b	Standard Error	t
Instrumental	.194	.235	.173	1.358
Supportive	.399	.505	.180	7.853
Constant		2.623		

R^2 = .262
R = .511

Parallel analyses using the disaggregated Commitment scores of teachers produced similar results, except that Instrumental behavior contributed relatively more to the prediction and the correlations were generally smaller. (The zero-order correlations of Supportive and Instrumental behavior with Commitment were .20 and .17, respectively, and the multiple correlation was .23.)

On the possibility that Commitment means would be disproportionately high (or low) under a particular combination of the dimensions--for example, when the principal was high on both Instrumental and Supportive behavior--an interaction term was added to the regression. It added virtually nothing to the prediction, indicating that the dimensions combine additively rather than interactively to affect Commitment.

Correlations of the Substitutes with Organizational Commitment

Measures of the several substitutes for leadership were indifferently correlated with Organization Commitment of the school staffs, as Table 14 shows. Most of the zero-order coefficients were within the bounds of chance, a fact which may be attributable in some degree to the measurement problems associated with the substitutes scales. Only the correlation of S10 (Spatial Distance) was of appreciable magnitude, suggesting that staffs in schools in which the principal was more remote from teachers had less commitment on average than those in schools with more accessible principals.

Table 14. Zero-order Correlations of Substitutes with Organizational Commitment, School Level (N = 47)

	Substitute	r
S1	Ability/Experience	-.10
S2	Professional Orientation	-.16
S3	Task Certainty/Feedback	.11
S4	Intrinsic Satisfaction	.19
S5	Formalization	-.01
S6	Rule Inflexibility	-.28
S7	Staff Availability	-.18
S8	Cohesive Work Group	-.18
S9	Principal Position Power	.03
S10	Spatial Distance	-.45

Note: r > .28 required for significance at .05 level.

Our inspection of the matrix of intercorrelations among the substitutes measures, themselves, revealed several strong relationships, mainly implicating Cohesive Work Group. (Matrix not shown.) It correlated with Professional Orientation (.51), Spatial Distance (.46), and Principal's Position Power (.40), yet the latter three were essentially uncorrelated with one another. Professional Orientation also showed a strong relationship with Staff Availability (r = .55). The five other substitutes measures were unassociated with any of their fellows. (This pattern of connection between discrete pairs of variables in the matrix was confirmed by a factor analysis, which yielded five common factors, all of them either singlets or doublets and hence uninterpretable.) In short, little meaning beyond the empirical observations could be attached to the intercorrelations.

Tests of Hypotheses

The critical test of the operation of substitutes as moderators of the leadership-commitment relationship lies in determining whether or not the interaction term (the product of L and S) contributed significantly to explanation of the variance in commitment scores, P, once the independent contributions of L and S were taken into account. Table 15 reports the results of the tests. It gives the percentage of variance explained by the two variables independently, the additional percentage explained by the interaction, and the associated F ratio and probability level (the last simply designated as NS if it failed to reach our criterion of .05).

It is apparent that, with the exception of Professional Orientation acting on Supportive leadership, none of the substitutes scales moderated the behavior-commitment relationship. The additional variance explained by the interaction term was under 1 per cent in nine tests, and 4 per cent or under in another four.

Table 15. Tests of Moderating Effects of Substitutes on Relationship Between Instrumental or Supportive Behavior and Organizational Commitment (School Level Analysis)
(N = 47)

	Substitute	Behavior Dimension	R^2 L + S (%)	Added R^2 L * S (%)	p
S1	Ability/Experience	Instrumental	13.0	0	NS
S2	Professional Orientation	Instrumental	14.0	1.7	NS
S2	Professional Orientation	Suportive	23.1	7.0	.04
S3	Task Certainty/Feedback	Instrumental	13.3	0	NS
S4	Intrinsic Satisfaction	Supportive	29.3	0	NS
S5	Formalization	Instrumental	14.0	.3	NS
S6	Rule Inflexibility	Instrumental	20.1	1.3	NS
S7	Staff Availability	Instrumental	15.7	.2	NS
S8	Cohesive Work Group	Instrumental	13.0	4.0	NS
S8	Cohesive Work Group	Supportive	23.5	3.9	NS
S9	Principal Position Power	Instrumental	13.3	.9	NS
S9	Principal Position Power	Supportive	26.6	0	NS
S10	Spatial Distance	Instrumental	22.2	.8	NS
S10	Spatial Distance	Supportive	28.6	.1	NS

Parallel teacher-level analyses, using disaggregated substitutes and commitment scores, produced similar results, but even the moderating effect of Professional Orientation was unobservable in that analysis. These analyses are given in Table 16 on the next page.

Table 16. Tests of Moderating Effects of Substitutes on Relationship Between Instrumental or Supportive Behavior and Organizational Commitment (Individual Level Analysis)
(N ~ 450)

	Substitute	Behavior Dimension	R^2 L + S (%)	Added R^2 L * S (%)	p
S1	Ability/Experience	Instrumental	3.2	.1	NS
S2	Professional Orientation	Instrumental	6.7	0	NS
S2	Professional Orientation	Suportive	6.8	.4	NS
S3	Task Certainty/Feedback	Instrumental	4.3	.1	NS
S4	Intrinsic Satisfaction	Supportive	11.9	0	NS
S5	Formalization	Instrumental	3.1	.2	NS
S6	Rule Inflexibility	Instrumental	5.0	.2	NS
S7	Staff Availability	Instrumental	4.0	0	NS
S8	Cohesive Work Group	Instrumental	3.4	.5	NS
S8	Cohesive Work Group	Supportive	4.1	0	NS
S9	Principal Position Power	Instrumental	3.0	.2	NS
S9	Principal Position Power	Supportive	4.0	0	NS
S10	Spatial Distance	Instrumental	4.9	.6	NS
S10	Spatial Distance	Supportive	8.9	0	NS

Estimated b coefficients for the single significant effect in the school-level analyses are indicated in the following equation.

$$\hat{P} = 3.58(SUP) + 4.68(S2) - 1.14(SUP*S2) - 9.11 ,$$

where $\hat{P}$ signifies the predicted value of Organizational Commitment. Figure 3 portrays the plotted equation to establish that the results supported rather than opposed expectations. Minimum and maximum values of Supportive behavior and of Professional Orientation observed in the 47 schools constitute the range of interest and bound the regression surface of the figure.

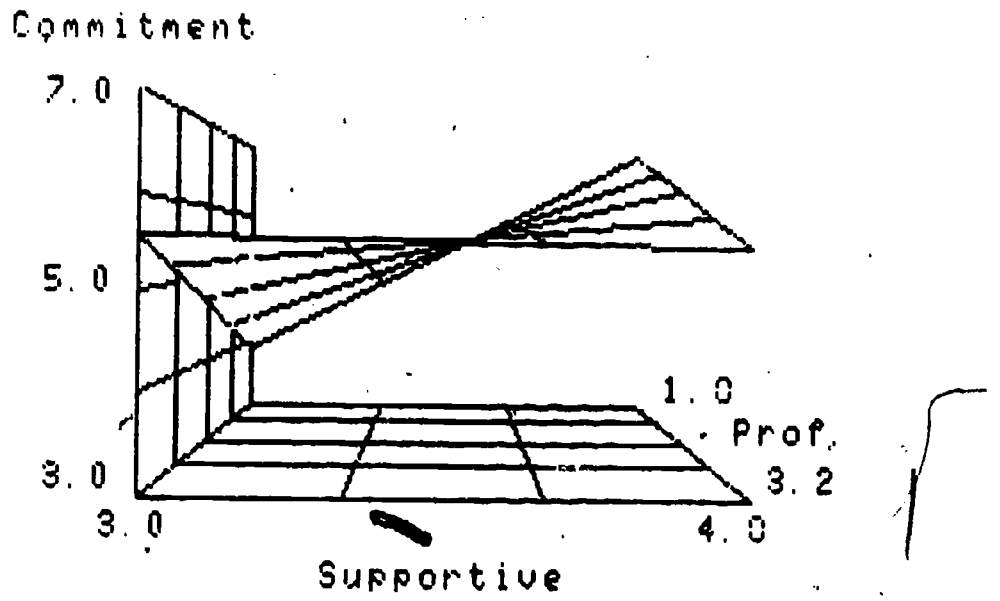

Figure 3. Surface depicting the moderating effect of Professional Orientation (S2).

The results in this instance were consistent with the substitutes hypothesis. Organizational Commitment scores rose sharply with increasingly Supportive behavior of the principal among staffs low on Professional Orientation, at the rear of the surface; they increased from 3.86 to 6.61 at a rate of +1.53 per unit-increase in leadership score. Among staffs high in Professional Orientation at the front edge of the surface, representing the presence of a substitute for leadership, the slope is virtually flat (-.08); their Commitment did not vary with the principal's Supportive behavior.

It is relevant to note, from the standpoint of our methodological

approach, that the zero-order correlation between Professional Orientation and Organizational Commitment was a statistically insignificant -.16 in Table 14, and had we followed the practice of other investigators and screened out substitutes with insignificant bivariate correlations, we would have overlooked the one instance of support for the Kerr propositions.

A final observation on the statistics produced by the regression analyses concerns the comparative strengths of the leadership variables and the substitutes measures to predict Organizational Commitment, particularly in the 13 instances in which no interactive effect was found. In every case, mean staff commitment was predicted significantly by the two types of variable together. (These data are not shown.) Their relative contributions to the prediction revealed that the substitutes, at least as measured in the study, contributed little. For the most part, the leadership variables were the active predictors. The main exception was Spatial Distance, which contributed twice as much to the prediction as Instrumental behavior and equally as much as Supportive behavior.

Summary

The statistical analyses described in this chapter provide little support for Kerr's (1977) substitutes for leadership construct in the setting of public elementary schools. Tests of the moderating influence of 10 operationally defined substitutes on the relationship between principal behavior (Instrumental and/or Supportive) and the organizational commitment of teachers were formulated as interaction effects and examined in a

hierarchical multiple regression procedure. Fourteen specific hypotheses were tested, once using the school as the unit of analysis and once using the individual teacher as the unit of analysis. Only one of the 28 tests produced a significant interaction term ($p > .04$). In that instance, the relationship between the principal's supportive behavior and staff commitment to the organization was less positive as a function of the staff's increasing level of professionalism. This finding, however, appeared only in the school-level analysis; it was not repeated at the individual teacher level. Given the number of tests conducted, one cannot dismiss the possibility that the appearance of a single significant effect was a manifestation of chance.

We are inclined to attribute the general absence of support for the theory to shortcomings in the instrument used to measure the substitutes. As noted in Chapter 2, items in the scales were plagued by "Don't Know or Not Applicable" responses and most of the scales themselves had notably low estimates of inter-rater reliability. In addition, only two of the substitutes scales had significant zero-order correlations with organizational commitment, and only one (Spatial Distance) had an appreciable effect on organizational commitment with principal behavior controlled.

The following chapter will report further work we undertook in trying to understand the operation of substitutes for leadership in public schools.

Chapter 4. TEACHER VIEWS ON SUBSTITUTES FOR LEADERSHIP AND SUGGESTIONS FOR FURTHER RESEARCH

The unproductive results of the statistical analyses reported in the preceding chapter led us to approach the substitutes construct in a different way. As noted at the chapter's end, we felt that our effort to apply Kerr's theory to the public schools was flawed by weaknesses in the questionnaire instrument we adapted for measuring the several potentional substitutes or neutralizers of principal leadership. Correspondingly, we decided to conduct a number of in-depth interviews with teachers in elementary schools to see if we could detect the operation of substituting or neutralizing conditions as respondents recounted their experiences in teaching. In the present chapter we report the fruits of our alternative methodological approach and conclude with suggestions for further research.

The Interviews

Procedures

The interviews were conducted with 9 teachers in two elementary schools during March and April, 1984.[4] One of the schools was included in the original sample and all five interviewees in that school reported that

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[4]We wish to acknowledge the contribution of Leland Stuart to the interview phase. Stuart assisted Pitner with the interviews in one of the elementary schools.

they had completed the questionnaire in the previous spring. Interviews were conducted at the school sites while classes were not in session. The principals had recruited a number of teachers with varying assignments, educational levels, and tenure at the school who would be willing to talk with us. All but one teacher was female. The pace of the interviews depended on the interest and vitality of the teachers. The shortest interview was 45 minutes and the longest two hours. The interviews were tape recorded.

In general we wanted teachers to describe their work in the school and their teaching experiences through the years in such a way as to touch on the the matter of administrative leadership and the various possible substitutes for it, while taking care not to put thoughts into the respondents' minds or to bias their responses. The overall interviews can be characterized as moderately directive. We did not work from a strict interview schedule but had a list of topics toward which we sought to direct discussion. Most topics were addressed in all of the interviews. Questions were open ended and teachers were encouraged to pursue matters of interest to them. After posing a question, the interviewer followed what the teacher had to say before proceeding to another topic. Probing questions were asked to elicit examples and descriptions of the impressions and experiences of teachers. Teachers generally responded with long answers; probes were used only when teachers' answers were short.

The Commentaries of Teachers

One concern was with describing circumstances under which teachers

look to principals for advice and assistance in the school setting and kinds of advice they sought. For instance, we wondered if the manner in which teachers related to the principals (or the principal related to teachers) varied with the experience of the teacher. We asked teachers to compare their first and second year teaching experience with later ones. One first grade teacher with ten years experience reflected about how she acquired experience and improved her teaching ability:

> I suppose a lot of it is the old trial and error method. I came to the first grade initially because that was where the opening was. The first year is extremely difficult. You're new at it, and they're [the first grade students] new at it. You're up 'til midnight. You wonder if what you're doing is correct... I think it just plain takes time and reflection to see if you're doing a good job. In the beginning you're so intent upon the lesson and how it's going that you're not really aware of how much the students are getting from it. As you become more comfortable with all that material, then you broaden. You can see who is getting it and who is not paying attention. Who's got it, who's bored. You don't need to do as much testing as you get experienced, too. But you don't know that when you first start off.

In comparing the first year with teaching now, a veteran teacher of learning disabled students replied:

> It's much easier now, but I seem to have less time. I think it's because I just have more and more things to do. I tested one student all day yesterday to get him certified. And, then by the time I filled out all the forms I have to fill out and all the little things, I wasn't finished by the end of the day. I had more to do.

Another veteran teacher suggested that although teaching the subject matter was easier, she was experiencing frustrations with conditions she felt were beyond her control.

> I think the frustrations that I feel now are things like you suspect a child is being abused. I did not see abuse when I first started out. I was looking at curriculum. I did not see bruises. I did not see the little girl who was crying, and I didn't get into what she was crying about. Now, after this many years, I think I'm more sensitive to the problems that children have at home; and I'm frustrated by my inability to do much about them. This is the frustration I take home. I am not frustrated because I have to prepare how to teach contractions tomorrow. I can do that. It's that other kind of stuff that you can broaden yourself through all these little details. I think I hear that same kind of thing from other people who have been on the job for a long time.

A young teacher brought in to be a change agent in a school with an entrenched staff reflected upon her third different grade and room assignment in three years:

> This is my last year as a probationary teacher, so I will be a real teacher. Since I've been in this building I've had a major stressful change each year. The first year I started in a third grade class, but after a month into school, I took 15 second graders and I had to switch to a split class. I tried to combine two curriculums. The next year I had a three-four split. It was hard to figure out the curriculum. Students ranged from second to fifth grade in ability. When I had the split, I felt I wasn't challenging my high fourth graders. The only way I could survive without going nuts was to gear the program to the average third grader. I didn't have the time, materials, or knowledge to individualize. This year I have all third graders and I'm making sure my top kids are challenged. Low kids go off to special programs. My personal goal is to help the top. I went to the TAG teacher and I'm using Bloom's taxonomy. This year I was able to cover the whole curriculum. There's talk that I will be moved to fifth grade next year. If I have to go to fifth grade next year, I'll have to start all over, learning how to teach long division. Oh, my!

It appears that experience plays an important role in promoting teachers' self confidence in their ability. With experience, teachers acquire skills and the ability to routinize their work freeing them to

perceive the complexity of the task and the human beings with whom they deal. Several teachers specifically mentioned "broadening" to describe the result of experience in one assignment. Teachers struggle in their first years with content, methods, materials, and discipline. Isolated in their individual classrooms, teachers either reach out for assistance or withdraw hoping no one notices until they "get their act together." We specifically inquired about where teachers get their ideas for teaching--how do they know what to teach? One teacher noted:

> We have specific curriculum for all the subject areas, so mainly the morning is spent in reading. I take groups for reading, while others do seatwork. In this school, we do reading in the morning. What else I give them is my own. The math is mostly dictated by the district.

She went on to elaborate about a unit on dinosaurs and then concluded by stating, "mostly I do what I think the student needs." When asked who decided reading should be in the morning, she indicated it was "a tradition for this building." A teacher of learning disabled students affirmed the importance of guidelines:

> There are specific guidelines that I must follow that the district sets up.

By this she was referring to guidelines regarding student placement and certification. Special education teachers know what to do because of the individualized educational programs (IEP) they develop for students. Other comments suggest that district guidelines are followed loosely, and teachers claim they rely on feedback from the student through his/her class performance in test results to fill in the details of the curriculum.

When teachers have curriculum or instructional problems, where do they go for advice? Teachers were asked if they called upon the principal for help. Responses varied as the following illustrates. One teacher recalled the assistance of a principal during her first two years in another school:

> The principal was very comfortable with coming into my room. He came in every day. He made suggestions and said nice things. This built up my confidence and I could ask him a question. I remember the day he looked at my writing on the chalkboard and said, "You can't see it." He broke the chalk in half and showed me how to make the marks broader. It was helpful. It made a difference. It was not insulting.

When asked if the principal assists her in this way now, the teacher added:

> If you're an experienced teacher, it's nice to be left alone. If the principal started showing up in my classroom every day, I'd worry.

Generally, teachers did not report that principals influenced the instructional program, as the following comments illustrate:

> Principals don't have a great deal of time, especially in a building this size [enrollment 500] to really be involved with what you're doing. Pretty much, if you keep your room quiet and look like you're doing something, it's okay.

A beginning teacher indicated:

> I get nervous when the principal walks in the room, that he's making judgments. (Smiling). But he's never said anything about my class afterwards.

Yet, a teacher with three years experience suggested the opposite.

> The principal doesn't come in enough. I know he supports me. He put his kids in my class.

Because teachers did not report the influence of the principal on their instruction, we raised the question of whether a good background in.

curriculum and instruction is necessary for the principal.

> It probably depends on how experienced you are as a teacher and what your needs may be. Sometimes if you have a curriculum and there are problems with it, but you have a principal who is not really knowledgable about curriculum, it's hard to really communicate.

Most teachers did not know of any instance of a principal questioning the methods or materials of a teacher. One teacher heard of an episode in another building in the district.

> A teacher was showing an inappropriate film, a religious film about the life of Jesus. The film was finished so nothing could be done right away. As a result, there are new district policies regarding bringing in materials that aren't approved.

Older teachers believed younger teachers found the principal intimidating, noting the conflict between the helper role and the evaluator role.

> A young teacher is not going to tell the principal that she really blew the lesson, that something went wrong. You will say that to the person next door. They're not going to evaluate you. They're not going to fire you. You can be very honest with them. You won't hear a young teacher say that to the principal. They don't want that to be in the principal's possession. A lot of principals can be a threat.

She was asked what she would do if she had the power to design something to assist a beginning teacher. She felt strongly that:

> There should be a person on the same grade level identified as a guardian angel for that person. I think it would be nice if the principal said, Mrs. Johnson is really there when you need help, and that person should come in and check. Usually the principal doesn't know much about primary anyway. They know intermediate. But, if you've got some little old lady down there who's taught her 20 years, who really knows the ropes, she can really help that young teacher. It shouldn't be a college person. Usually they're still so far into ideas and not into practical situations. They're not the people to help. I think it's another person at that

grade level who really wants to do it.

Most teachers reported limited contact with the principal regarding curriculum and instruction. A special education teacher indicated she keeps the principal aware of children being tested, of special difficulties, and of problematic parent conferences so he will not be surprised. Another, when asked if she consulted the principal on instructional matters, indicated she would only ask a principal for assistance if she "were going on a field trip and needed the principal's specific permission." Teachers readily admitted referring some difficult discipline problems to the principal. Another reported also sending students to the principal as a reward. When asked if she would go to the principal for help with discipline problems, a second grade teacher responded:

> I might go to the principal. We have a referral system for repeated problems or severe problems.

This raised the question of alternative sources of information about the work of teaching. In addition to the principal, other teachers and central office staff are potential sources of information and assistance with the performance of one's job. We found that some teachers team, but many do not. The norm appears to be one of sharing. Teachers reported working in grade level teams. We asked how teachers get together:

> It's a very gradual process. It maybe started when two of us got together and we were talking about the reading levels of our kids. Because I only had two kids at a particular reading level, we we're more or less helping one another.

We asked how the decision is made to team. She added:

> It's more or less traditional with a building. This building is built with individual classrooms. Some buildings are built for team teaching with three rooms connected, although it doesn't always stay that way. Since I've been here we're teaming more. We share children. I think it has to do with the physical aspects of the building.

In this building where grade level teams appear to be active, teachers reported that the principal was not involved in the day-to-day aspects of the instructional program, but they said the principal did set school goals and particular emphasis for the year. For example, the reading program was the special emphasis this year, and resources were directed toward this effort. The principal can also influence the program through his hiring decisions:

> Three of us were hired to deliberately shake things up. It worked well. They [the older teachers] kept saying we've not done it this way before. I was team leader last year. I just bulldozed my way through. The team was wishy-washy. We were hired because the principal said he wanted new ideas.

Control of resources is another way to influence the program. Most teachers noted, however, the severity of budget cuts and the lack of resources to do special things.

> We don't have money. On an in-service day it's now acceptable to stay in your room and work. If you go out of town they won't pay for travel or even your lunch.

It appears teachers with specialized functions such as teachers of gifted, slow learners or reading, and counselors are in a unique position to assist regular classroom teachers. For example, a special education teacher indicated that she provides technical assistance to teachers who request it:

> Many times a teacher will say to me, I know this child isn't eligible for your program or services, but he's having problems with this. Can you give me an idea of what do do?

Another teacher commented that the location of her classroom affected her relationships with other teachers:

> Last year I was across from the office. People stopped in, asked for ideas. I'm now moved. People don't poke their heads in now.

Also available are curriculum specialists located in the central office. Some utilized central office specialists, but others did not. One teacher mentioned her reliance on central office personnel (curriculum specialists).

> I had a split assignment last year and it was hard trying to combine two curriculums. Before our budget cuts, I used the curriculum assistants next door. [The regional superintendent's offices were located on the same grounds.] Several times a month I worked with these folks. One helped locating materials and with discipline. He scrambled around to find a different social studies series to accommodate the wide range of student abilities.

Another teacher indicated that she telephoned the curriculum specialists to request additional materials. She added:

> Our curriculum resource teacher has been in the building several times. He was housed next door and he came over quite a bit. I've not worked with him personally. He's relocated now so we haven't seen him.

Still another said he supposed it was possible to call someone in the central office but that he never thought to do so.

Their success as teachers is a subject for reflection. When asked how one knows he or she is doing a good job, feedback from the student was the primary standard.

> The district tells you you're doing a good job supposedly by their testing programs and if you taught this objective or that one. But, I think after you've taught a lot of years, it isn't just on paper if you're doing a good job. It's the changes in children that aren't recorded on paper. You see them growing in confidence and skills... Shy kids willing to talk, discipline problems settling down and getting to work. A lot of it can't be measured on paper. But, with experience, you know when you're doing a good job.

Another teacher replied:

> By responses you get from students and their parents, you know you're doing a good job. Not so much by pats on the head or by conversations with the principal. If my supervisor asked me to do an extra assignment, I would know he thought I was doing a good job.

But, another teacher had a different perspective about the principal:

> Principals by virtue of their job cannot get around to teachers and see what they're doing in their classroom enough to make them feel good about it. I know how my principal feels about the job I do. He does let me know in conferences and evaluation sessions. He doesn't always have the time to tell me. It would be neat if he could. It always feels good when he says it's a great lesson. You don't look for your rewards from peers or principals because you have to wait too long in between. You get that every day from kids. You get that from the look on their faces. It's real intangible.

A younger teacher was specific about the feedback received from a principal:

> I was just there [with the principal] with my goal planning. I trust him for legitimate advice. He's a good role model. I wanted to retain 5 kids and the [principal and counselor] were telling me I shouldn't. Damn it. I'm with them all day. I should know. But, it was my ego. The principal helped me analyze my own behavior. We promoted the students.

A resource room teacher gets feedback from peers as well as students:

> Basically, the classroom teacher says he's really doing his reading or I can see what success he has on an assignment I give him and how he feels about it. The child knows if he has read or answered it correctly.

Most teachers rely on the achievement and growth of their students to assess their merit as a teacher. Seeing this success brings a great deal of satisfaction to teachers:

> I enjoy seeing their success, knowing that they can do something. I think it's a greater satisfaction seeing a child who hasn't been successful suddenly to realize, 'Oh, I can do that.' I don't always get that. If I have one success a year it's worthwhile. There were children who weren't a success and there were times when I thought that it was my fault. I just couldn't reach the child.

We wanted to know in what ways teachers reinforced their colleagues. One teacher offered this insight:

> I think teachers talk very little with one another about who's doing a good job. I think people are more concerned about themselves, and I think that's characteristic of people in all professions. We're so worried about ourselves that we don't give our peers much reinforcement. I don't think you get a great deal of strokes from peers. Once in while you do. Someone will say, 'Hey, that's a great idea!' But, you don't look for strokes from peers. I think you look for them from the kids. Sometimes the parents. But, you don't wait to hear from your peers. Probably the principal more than other staff. In my team, I don't know enough about other teachers, so I wouldn't be legitimate. I value my husband's opinions. Even though he knows nothing about teaching. he encourages me a lot about what I'm doing. I just don't know whose opinions I would respect.

When asked how she knows someone is a mediocre teacher, she stated:

> By what the kids say in reading and by the comments the teacher makes in the staff room. Basically it's whether I like them personally [pause] which may have nothing to do with their teaching.

This appears in opposition to the teacher who indicated the importance of a

buddy in the first year for assistance. But, assistance is different from affirmation. Teachers were asked what principals do to reward teachers who are doing a good job. Several teachers responded as if the interviewer were speaking a foreign language unknown to them. One teacher suggested turning the question around and then proceeded:

> If I were a teacher who was never asked to take a special child or do something out of the ordinary, I would wonder why I wasn't being asked. I'm not doing well with this question.

The interviewer prompted her by suggesting that getting a better room assignment might be a reward. But, she clarified:

> In our team it has to do with how long you've been in the building. We have a hot side and a not-hot side. The hot side is the side that gets the sun all day and you cook in there.

With another teacher we also pursued the question of rewards. He said:

> There's no merit pay. There are no physical things. I've gotten verbal praise. That means a lot because I don't hear it much. Who knows?

Because of suggestions that teachers were primarily self-reliant (occasionally sharing with other teachers) and receive their rewards from successful students, we asked if principals make a difference. All teachers we interviewed agreed principals did but generally were unable to articulate and describe the difference. It is summed up in one teacher's comment, "yes, but I can't put it into words." It is further interesting that, in one school in which we interviewed five teachers, we found differences in teacher reports of how many principals had been in the building over the course of the last several years. The responses varied from two to five. In that

school at least, the principalship was not an especially salient office in teachers' lives.

Reflections on the Interviews

Teachers noted that at different stages in their experience, different sorts of assistance are helpful. With experience comes the understanding about whether or not you are doing a good job with curriculum, but other questions (such as child abuse) come into play, and other networks (such as the children's services division) become critical. This suggests to us that different individuals may be more appropriate for certain kinds of assistance. Also, the change of location of curriculum specialists suggests that, when help becomes less accessible, it will not be called upon.

The changes hoped for by bringing in three new, young teachers may be a bit of evidence demonstrating a principal's understanding of the limits to his leadership and the significance of teachers in substituting as leaders. The most common word used to describe favorable interaction between teachers (and principals) was "share." This sharing was non-threatening and non-critical. It had to happen without asking or offering it to someone in need.

Another form of sharing is found in a teacher's comments about placement decisions governing low ability students. She indicated, "it wouldn't be fair for one person to make the decision, but a committee is fair." However, fairness had to do with blame. A committee "shares" the decision, the decision is more likely to be accepted by other teachers; and "blame" for the possible incorrect decision is spread. Thus "fair" had

nothing to do with "correct" but only with protection for the decision makers. Both notions of sharing may stem from the uncertainty of the task, the lack of clear understanding of cause/effect relationships in the teaching-learning process.

On the notion of rewards, location of rooms (hot and cold side, convenience, or flow of people through school) appeared to matter to teachers in the extent that it made working conditions more tolerable. Being given something more to do was interpreted as confidence on the part of the principal. However, when does the vote of confidence become too much of a burden? It was interesting to note the teacher who was shifted from grade level to grade level and the tenuousness of her acceptance of such a shift as a reward. It would be just as easy to interpret the principal's action in another way. This is often a strategy employed to push a mediocre teacher out. Also, it could be interpreted as the principal's weakness by having the same teacher change instead of challenging someone else to grow. Since this was one of the teachers allegedly brought in to "shake things up," it probably was a vote of confidence. The reward and control systems appear to be mixed up. The same strategy is used to reward and punish. People who need to change but are not predisposed are allowed to continue in the present mode. Teachers who are willing to take on added responsibilities are abused. And, by changing assignments from year to year, they never acquire the one quality valued by the other teachers--experience. One teacher, who holds her administrative certificate, values the experience she has gained at both primary and intermediate grades, but she commented on the lack of continuity

necessary for coping with the problems she encounters. Will she ever acquire sufficient experience and ability in curriculum and instruction to offer leadership when she's a principal?

Recommendations for Further Research

Conditions which might serve as potential substitutes are present in the elementary schools. The question remains whether or not there is variation and if they act a substitutes. We believe the construct is worthy of continued study, but before proceeding the instruments must be refined. It may be that hypothetical situations to which the teacher responds would be more appropriate. Also, a purposive sample should be selected to ensure differences. Finally, the feasibility of conducting controlled field experiments should be pursued. That is, researchers could manipulate substitutes in different contexts and assess the impact on leader behavior and teacher performance.

Appendix A

Yukl's Management Behavior Survey (Revised by Pitner)

For each item, please circle the answer that best describes your principal. The answer choices are as follows:

1. Never
2. Seldom
3. Sometimes
4. Usually
5. Almost Always
9. Don't Know or Not Applicable

1. Emphasizing Performance

1. My principal encourages teachers to make a maximum effort in doing the work.

2. My principal talks about the importance of maintaining a high-quality program for the students' achievement.

3. My principal urges a teacher to make a special effort to complete a task or assignment.

4. My principal talks about the importance of improving efficiency and productivity in schools.

5. My principal urges teachers to improve their performance.

2. Showing Consideration

6. My principal spends time talking informally with each teacher to establish a closer relationship and provide personal attention.

7. My principal is sympathetic and supportive when a teacher is upset about something.

8. My principal makes a special effort to help a teacher with a problem.

9. My principal is polite rather than "bossy" when asking to do something.

10. My principal gives you his/her full attention and listens carefully to what you say (i.e., says things that show he/she is listening, doesn't keep interrupting, doesn't try to do something else at the same time).

3. Career Counseling

11. My principal offers helpful advice to teachers on how to advance careers.

12. My principal encourages teachers to develop the skills needed to advance to administration.

13. My principal encourages teachers to set personal development goals for themselves (e.g., to learn new skills, gain more expertise)

14. My principal helps teachers in their professional growth and development by providing opportunities to learn new skills and show what they can do (e.g., special assignments, new responsibilities).

15. My principal encourages teachers to attend training programs, right courses, or workshops to develop greater skill and expertise.

4. Inspiring Subordinates

16. My principal speaks in a manner that gets teachers really excited and enthusiastic about their work (e.g., uses colorful, emotional language, talks about how important their work is to others).

17. My principal gives a pep talk and tells the group that he/she has confidence in their ability to overcome obstacles and accomplish worthwhile objectives.

18. My principal says things that make a person feel proud to be a member of this school (e.g., recalls its earlier successes and accomplishments, talks about how special it is to be a member, tells teachers they are the best group he/she has ever worked with, etc.).

19. My principal describes a new project or task in an enthusiastic way that makes it seem important and worthy of each person's best efforts.

20. My principal inspires greater teacher effort and commitment by setting an example in his/her own behavior of dedication, courage, and self-sacrifice.

5. Providing Praise and Recognition

21. My principal praises specific instances of effective behavior by a teacher.

22. My principal tells a teacher why he/she thinks the teacher's performance is exceptional.

23. My principal praises a teacher for improvements in performance.

24. My principal provides recognition to a teacher who has performed especially well or has contributed important ideas and suggestions.

25. My principal expresses his/her personal appreciation when a teacher successfully carries out an assignment or does a job well.

6. Structuring Reward Contingencies

26. My principal lets teachers know that they will be rewarded in some way for effective performance.

27. My principal rewards a teacher who performs well with something the teacher regards as desirable and appropriate.

28. My principal bases his/her recommendations for a salary increase (i.e., step increase) on how well a teacher performs the work.

29. My principal bases his/her recommendations for the advancement or promotion of teachers on their performance and competence.

30. My principal rewards teachers in a way that does not seem manipulative.

7. Clarifying Work Roles

31. My principal clearly explains my duties, job responsibilities, and scope of authority.

32. My prinipal clearly explains the rules, policies, and regulations that teachers are expected to observe.

33. My principal gives clear, easy-to-understand instructions when assigning work to a teacher.

34. My principal explains what aspects of the work has the highest priority.

35. My principal checks to see if teachers understand what they are supposed to do.

8. Goal Setting

36. My principal meets individually with teachers to jointly establish specific goals for each important aspect of a teacher's job.

37. My principal discusses with a teacher how goal attainment will be verified.

38. My principal sets clear and specific goals for teachers.

39. My principal sets performance goals that are challenging but realistic.

40. My principal meets with a teacher to develop mutually acceptable action plans for attaining the person's performance goals.

9. Training-Coaching

41. My principal uses examples and demonstrations to show teachers how to

do a task.

42. My principal provides additional coaching and instruction to teachers who need to improve their skills.

43. My principal demonstrates both correct and incorrect procedures to help teachers understand the difference.

44. My principal has teachers practice or rehearse complex procedures to develop their skill and confidence.

45. My principal watches a teacher doing a new task and provides coaching in a patient and supportive manner.

10. Disseminating Information

46. My principal briefs teachers about relevant decisions made by higher administration and the reasons for the decisions.

47. My principal relays to teachers relevant information obtained in conversations obtained with other persons in the school or district or outsiders.

48. My principal reports on the progress being made in meetings or negotiations with other schools or organizations.

49. My principal informs teachers of his/her activities and plans.

50. My principal passes on relevant memos, reports, and other written materials that teachers would not otherwise receive.

11. Encouraging Decision Participation

51. My principal consults with teachers to obtain their ideas and suggestions before making major decisions.

52. My principal seriously considers the suggestions and advice of teachers when making decisions about the educational program.

53. My principal is willing to modify a proposed change when teachers have strong objections to it.

54. My principal asks teachers to make a group decision about a work-related matter.

55. My principal gets teacher approval in important matters before going ahead.

12. Delegating

56. My principal encourages me to use my own judgment in solving work

problems.

57. My principal allows me to make decisions and implement them without his/her prior approval.

58. My principal delegates additional authority and responsibility to me (e.g., a more complex and important task, and administrative function previously performed by him/her).

59. My principal tells me he/she has confidence in my ability to determine for myself the best way to a task or assignment.

60. My principal delegates to me the responsibility and authority to carry out some activity or task, then lets me handle it without interfering.

13. Planning

61. My principal plans in detail how to accomplish school objectives (e.g., he/she identifies the sequence of necessary action steps or tasks, determines when each task should be done and who should do it).

62. My principal plans how to do the work so that personnel, equipment, and facilities are utilized in an efficient manner.

63. My principal plans in advance what resources are needed by the teachers to carry out a task or project.

64. My principal develops plans, schedules, or standard procedures to coordinate the work of different teachers.

65. My principal plans in advance how to avoid or cope with potential problems and disruptions in the teaching (e.g., equipment breakdowns, supply shortages, classroom interruptions, accidents, bad weather, etc.).

14. Innovating

66. My principal looks for opportunities for the school to exploit.

67. My principal provides innovative ideas for making the school more effective.

68. My principal develops long-range plans for the school indicating the objectives and strategies to be pursued in coming years.

69. My principal indicates major changes in policies, procedures, or the organization of the school in order to increase its effectiveness and capacity to respond to changing conditions.

70. My principal taks the initiative in proposing new activities for the school to perform.

15. Problem Solving

71. My principal acts promptly to handle work-related problems.

72. My principal takes the initiative in identifying problems that the school needs to deal with.

73. My principal gives top priority to solving serious problems rather than becoming preoccupied with less important matters.

74. My principal makes a quick but systematic analysis of the cause of a work-related problem before taking corrective action.

75. My principal handles work-related problems and crises in a confident, decisive manner.

16. Work Facilitation

76. My principal keeps informed about the resources (e.g., equipment, tools, supplies, facilities, etc.) available for teachers and where the resources can be obtained.

77. My principal allocates available resources to teachers who need them to do their work.

78. My principal quickly requisitions any extra supplies, materials, tools, or equipment needed by a teacher to complete a task or assignment.

79. My principal quickly gets any necessary support services or extra help requested by a teachers (e.g., substitute teachers, teacher aides, outside consultants, etc.).

80. My principal checks to see that equipment and facilities used by teachers are maintained in good condition.

17. Monitoring Operations

81. My principal checks on the performance of teachers (e.g., reads lesson plans, visits classrooms, tours the building) to see how the work is going.

82. My principal holds progress review meetings to keep informed about the work of teachers.

83. My principal follows up after asking a teacher to do something to verify that it was actually done.

84. My principal inspects the work output of teachers to check on its quality.

85. My principal asks me to report on my progress in carrying out an assignment.

18. Monitoring the Environment

86. My principal develops a network of contacts with people outside the schools who can provide useful information about outside events and developments.

87. My principal gathers information on the activities of outsiders who can affect the school, such as parents, community leaders, special-interest groups, etc.

88. My principal attends meetings and social events to discover what is happening in other parts of the district.

89. My principal examines what is done in other schools and districts to get ideas about new methods and strategies to use in his school.

90. My principal telephones or meets with other administrators in the district to learn about their activities and discuss ways to achieve better coordination among schools.

19. Representing the School

91. My principal lobbies forcefully with higher administration to obtain necessary resources for the school.

92. My principal persuades superiors and outsiders to appreciate and support the school by telling them about its activities, accomplishments, and capabilities.

93. My principal resists unrealistic demands made on the school by central office administrators.

94. My principal negotiates aggressively with outsiders and other schools in the district to obtain agreements favorable to the school.

95. My principal makes strong and persuasive arguments to gain the support of higher level administrators for necessary changes in school plans, objectives, or procedures.

20. Facilitating Interaction

96. My principal emphasizes the importance of teamwork.

97. My principal reminds teachers that they depend on each other and must make a cooperative effort if they are to attain their common

objectives.

98. My principal encourages teachers to be friendly and supportive toward each other.

99. My principal encourages teachers with similar assignments to meet with each other to share information, exchange ideas, and coordinate their efforts.

100. My principal holds team-building sessions at which teachers talk about ways to improve their working relationships with each other.

21. Managing Conflict

101. My principal encourage teachers to resolve conflicts and disagreements in a constructive manner without unnecessary bickering and argument.

102. My principal mediates conflicts and disagreements among teachers by helping them to find a solution or an acceptable compromise.

103. My principal encourages teachers to focus on their common interests rather than becoming preoccupied with their differences.

104. My principal encourages teachers to build on each other's ideas rather than merely finding fault with them.

105. My principal helps to smooth over disagreements and keep them from developing into bitter conflicts (e.g., jokes to relieve tension, redirects discussion to a non-controversial topic, recesses a meeting when people need time to cool off).

22. Criticizing

106. My principal criticizes a teacher in private rather than in front of other people.

107. My principal criticizes a specific act rather than the person who did it.

108. My principal points out errors or unsatisfactory work in a calm, helpful manner.

109. My principal finds something positive to say about a teacher's work before pointing out deficiencies.

110. My principal gives a teacher adequate opportunity to explain why he/she made a mistake or failed to complete an assignment properly.

23. Administering Discipline

111. My principal investigates to get the facts before reprimanding or punishing a teacher for improper behavior.

112. My principal warns teachers with unsatisfactory performance that they are subject to disciplinary actions if they do not show some improvement.

113. My principal asks a teacher with a performance deficiency to suggest ways to overcome the problem.

114. My principal is firm about disciplining a teacher when it is necessary to do so (e.g., when there is consistently poor performance, disobedience to a legitimate order, or a violation of important rules and regulations).

115. My principal disciplines teachers in a fair and consistent way (e.g., doesn't show favoritism, is not too harsh or too lenient).

Appendix B

Kerr's Substitutes Items (Revised by Pitner)

INSTRUCTIONS: For the following items, please circle the answer that best describes your situation. The answer choices are as follows:

1. Never
2. Seldom
3. Sometimes
4. Usually
5. Almost Always
9. Don't Know or Not Applicable

1. Ability, Experience and Training

   1. Because of my ability, experience, training, or job knowledge, I have the competence to act independently of my principal in performing my day-to-day duties.

   2. Because of my ability, experience, training, or job knowledge, I have the competence to act independently of my principal in performing unusual and unexpected job duties.

   3. Due to my lack of experience and training, I must depend upon my principal to provide me with necessary data, information, and advice.

2. Professional Orientation

   4. For feedback about how well I am performing, I rely on teachers in my subject area/grade level, whether or not they are teachers in my school.

   5. I receive very useful information and guidance from teachers in my subject area/grade level, but who are not teachers in my school.

   6. My job satisfaction depends to a considerable extent on teachers in my subject area/grade leve, but who are not teachers in my school.

3. Organizational Rewards

   7. I cannot get very enthused about the rewards offered or about the opportunities available in this school.

   8. This school offers attractive payoffs to teachers it values.

   9. In general, most of the things I seek or value in this world cannot be obtained from my job or my school.

4. Teaching Tasks

10. For me, there is little doubt about the best way to teach my subject area/grade level.

11. Because of the nature of teaching, I am often required to perform non-routine tasks.

12. Because of the nature of teaching, at the beginning of each work day I can predict with near certainty exactly what activities I would like to perform that day.

13. There is really only one correct way to perform most of my tasks.

14. My job duties are so simple that almost anyone could perform them after a little bit of instruction and practice.

15. It is so hard to figure out the correct approach to most of my work problems that second-guessers would have had a field day.

5. Feedback from Task

16. After I've taught a lesson or unit, I can tell right away from the results I get whether I've done it correctly.

17. In teaching, you can make a mistake or error and not be able to see that you've made it.

18. Because of the nature of the tasks I perform, it is easy for me to see when I've done something exceptionally well.

6. Intrinsic Rewards

19. I get a great deal of personal satisfaction from teaching.

20. It is hard to imagine that anyone could enjoy teaching.

21. My job satisfaction depends to a considerable extent on the actual tasks I perform as a teacher.

7. Organizational Formalization

22. Clear, written goals and objectives exist for the grade level/subject matter I teach.

23. I learned about my job responsibilities from written documents.

24. In this school, teacher performance appraisals are based on written standards.

25. The teaching methods and materials I should use are specified in

rules (e.g., the teacher collective bargaining contract, school rules or policies).

26. Written rules (e.g., teacher collective bargaining contract, school rules or policies) exist to direct my work efforts in such areas as student discipline, student placement, acquisition of textbooks and instructional supplies, curriculum, and programs offered.

27. Written rules exist regarding my working conditions; e.g., preparation time, number of hours in a workday, and leaves of absence.

28. Written documents (such as class schedules, scope and sequence, and lesson plans) are used as an essential part of my job.

29. There are contradictions and inconsistencies among the school's written statements of goals and objectives.

30. There are contradictions and inconsistencies among the school's ground rules and practices.

8. Organizational Inflexibility

31. In this school the written rules are treated as a bible, and are never violated.

32. People in this school consider the rule books and policy manuals as general guidelines, not as rigid and unbending.

33. In this school anytime there is a policy in writing that fits some situation, everybody has to follow that policy very strictly.

9. Staff Functions

34. For feedback about how well I am performing, I rely on other teachers in the school, who are outside my department, team, or subject matter area.

35. In my job I must depend on central office supervisors, subject matter specialists, or curriculum coordinators to provide me with information and informal advice necessary for my job performance.

36. I receive very useful information and guidance from central office supervisors, subject matter specialists, or curriculum coordinators.

37. receive very useful information and guidance from educators who are not part of the school or district and are not teachers (e.g., professors, consultants, state and county specialists).

10. Cohesive Workgroups

38. For feedback about how well I am performing I rely on teachers in my school rather than my principal.

39. The quality of my teaching depends largely on the performance of teachers in my school rather than my principal.

40. I receive very useful information and advice from teachers in my subject area, grade level or team other than my principal.

41. I am dependent on teachers in my subject area, grade level or team other than my principal for important organizational rewards.

42. My job satisfaction depends to a considerable extent on teachers in my subject area, grade level or team other than my principal.

11. Principal Control Over Rewards

43. On my job I must depend on my principal to provide the necessary financial resources such as travel and conference money.

44. On my job I must depend on my principal to provide the necessary non-financial resources such as room assignment, textbooks, supplies and equipment.

45. My chances for a promotion (such as to department chair, team leader, administrator) depend on my principal's recommendation.

46. My chances for a salary increase depend on my principal's recommendation.

47. My principal has little say or influence over which of the teachers receive a salary increase.

48. My principal has little say or influence over which of the teachers receive a better teaching assignment (such as better group of students, subject matter, or school).

49. The only performance feedback that matters to me is that given me by the principal.

50. The only performance feedback that matters to me is that given me by my students.

51. I am dependent on my principal for a better teaching assignment.

52. I am dependent on my principal for a salary increase.

53. The feeling of achieving with students whatever I set out to do is more satisfying to me than money or promotion.

54. My job satisfaction depends to a considerable extent on students'

progress and achievement.

12. Spatial Distance Between Principal and Teachers

55. My principal is seldom around me when I'm teaching.

56. On my job my most important tasks take place away from where my principal is located.

57. My principal and I seldom interact with one another on significant issues and matters.

13. Teacher Need for Independence

58. I like it when the person in charge of a group I am in tells me what to do.

59. When I have problems I like to think it through myself without help from others.

60. It is important to me to be able to feel that I can run my life without depending on people older and more experienced than myself.

Appendix C

Organizational Commitment Questionnaire (Revised by Giduk)

INSTRUCTIONS: Listed below are a series of statements that represent possible feelings that individuals might have about the school in which they teach. With respect to your own feelings about the particular school for which you are now teaching, please indicate your agreement or disagreement with each statement by circling one of the seven options that best describes your feelings. The answer choices are as follows:

1. Strongly Disagree
2. Moderately Disagree
3. Slightly Disagree
4. Neither Disagree nor Agree
5. Slightly Agree
6. Moderately Agree
7. Strongly Agree

1. I am willing to put in a great deal of effort beyond that normally expected in order to help this school be successful.

2. I talk up this school to my friends as a great school in which to teach.

3. I feel very little loyalty to this school.

4. I would accept almost any type of teaching assignment in order to keep working in this school.

5. I find that my values and the school's values are very similar.

6. I am proud to tell others that I teach at this school.

7. I could just as well be teaching at a different school as long as the assignment were similar.

8. This school really inspires the best of me in the way of teaching performance.

9. It would take very little change in my present circumstances to cause me to leave this school.

10. I am extremely glad that I chose this school to teach in over others I was considering at the time I started.

11. There's not too much to be gained by sticking with this school indefinitly.

12. Often I find it difficult to agree with this school's policies on

important matters relating to teachers.

13. I really care about the fate of this school.

14. For me this is the best possible school in which to work.

15. Deciding to teach in this school was a definite mistake on my part.

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