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LA THÈSE A ÉTÉ
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LEAST PREFERRED CO-WORKER SCORE
OF THE PRINCIPAL
AND DEGREE OF BUREAUCRATIZATION
IN OPEN AND TRADITIONAL SCHOOLS

Thesis presented to the School of
Graduate Studies of the University
of Ottawa in partial fulfillment
of the requirements of the degree
of Doctor of Philosophy.

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CURRICULUM STUDIORUM

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INTRODUCTION

This thesis is a study linking the discernible leadership characteristics with type of organizational structure found in different types of schools.

The purpose of this study is to examine the behaviour of elementary school principals in traditional and open schools. The thesis attempts to verify Fiedler's hypothesis that the behaviour of high and low Least Preferred Co-Worker leaders varies according to the situation in which they find themselves. It is also an investigation of the organizational engineering aspect that has been generated by the Contingency Model and conceptualized by Fiedler as his idea of Leader Match. The thesis proposes the hypothesis that leaders tend to alter the structure of the organizations in specific ways.

In the field of education, very little useful research has been done concerning leadership selection. Principals are largely appointed on a hit or miss basis. Selections are usually made on the basis of past performance as a teacher.

If the variation in leader behaviour from one situation to another could be identified, either in general or specifically for educational situations, the task of selecting and preparing leaders would be much more clearly charted. Predictive reliability in this dimension could make leadership selection for a particular situation a rationally planned

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endeavour. The results of this study, then, could have considerable practical value.

This paper is arranged in three chapters. Chapter I deals with theories of leadership, Fiedler's Contingency Model, open and traditional schools, theories of bureaucracy, measures of bureaucracy, a brief summary of the chapter findings, statement of the problem and resulting hypothesis to be tested. Chapter II is concerned with methodology, the instruments used, description of the data, plan of the statistical analysis, and calculations. Chapter III gives the results, a brief summary, and outlines the conclusions drawn from the paper.

Also included are a list of references of articles and books used for background information, appendices, and an abstract of the report.

CHAPTER I

REVIEW OF THE LITERATURE

This chapter aims at providing the theoretical background necessary for the understanding of the present study. It begins with a description of theories of leadership and examines some of the studies that support these theories. The concept of bureaucracy is examined and relevant studies of school organizational structures are reviewed. Fiedler's Contingency Model of Leadership Effectiveness is described and some of the studies that have applied this model to the school situation are analysed. The need for an investigation involving these two dimensions, and the theoretical rationale of the study as stated in the following section are shown. The outline of the problem and the derived hypotheses are given in the final section of the chapter.

1. Theories of Leadership

The concept of leadership has occupied man's mind and imagination for a long time. Although a great deal of material, both literary and scholarly, exists, the greater part of such material is based in speculation and folk wisdom. Such opinions based on "common sense" and folk lore become axiomatic over time, clouding the issue so that the "accepted" views confound

attempts at real research that would yield reliable and replicable results.

As our society became more industrialized, and communication and transportation improved, the importance of organizations increased. Today, one of the chief characteristics of our Western culture and civilization is that it is an organizational society. It is usually assumed that leadership is necessary in organizations. Katz and Kahn (1966, pp. 300-308) point out that there is an almost universal assumption that even a small subpart of an organization can operate successfully only if some person has been formally designated a leader. The incompleteness of organizational design, the internal dynamics of organizations, the organization's changing environmental conditions, and the nature of the human members of the organizations make leadership necessary in an organization. This view is supported by Hall (1972, p. 243).

This interest in leadership and leadership effectiveness in organizations had led, in comparatively recent times, to empirical investigations in attempts to broaden our knowledge of leadership, leadership effectiveness, and the function of leaders in organizations.

A survey of the literature concerning leadership indicates that various approaches have been utilized as the theory of leadership developed. One of the first major problems was in operationally defining leadership itself.

REVIEW OF THE LITERATURE

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Hemphill (1968, p. 5) states that perhaps the most glaring inconsistency in the literature is in the definition of the leadership concept itself. He cites Gibb as identifying eight different perspectives of the leader. They are:

1. The leader as the focus for the behaviour of the group.
2. The leader as an individual in a given office.
3. The leader in terms of socio-metric choice.
4. The leader as one who exercises influence over others.
5. Leadership differentiated from headship.
6. The leader in terms of his influence on group syntality.
7. The leader as one who engages in leadership behaviours.
8. Focussed versus distributed leadership (Gibb, 1954, pp. 877-920).

From an analysis of these definitions Hemphill (1968, pp. 5-8) has identified two intersecting spheres of power phenomena: activated power or influence; and accepted power or authority. He redefined leadership as that set of power relationships which include both influence and authority. The leadership process is that set of behaviour changes which result from accepted power.

Bavelas (1959, pp. 491-498) distinguishes between the idea of leadership as a personal quality and the idea of leadership as an organizational function. The first focusses on the qualities and abilities of individuals while the second leads us to look at the patterns of power and authority, and human

interactions in organizations. Early notions about leadership dealt almost entirely with the personal qualities and abilities aspect, the so-called "trait theory" school of thought.

This school of thought is predicated on the belief that there are people who are endowed with certain characteristics or traits that especially fit them for their tasks as leaders. This trend of thought leads to searching for individuals who possess these traits to utilize their leadership potential. Training, according to this view, is very effective in improving leadership skills. Research based on this view attempts to identify these traits that determine leadership ability, and to refine the ways of measuring these traits in people. Even though extensive surveys of the research literature show little promise for this method, this notion of outstanding leaders possessing special traits persists. In 1948, Stogdill published a comprehensive survey of the literature concerning leadership, up to 1947. He concluded that the trait approach to leadership, as it had been used in most studies reported, had yielded negligible, and often contradictory, results. Stogdill reiterated this conclusion in his 1974 survey. Traits, considered singly, hold little diagnostic or predictive significance. In combination, traits appear to interact to generate personality dynamics that can be an advantage in leadership responsibilities. Studying these personality dynamics however is not the same thing as studying traits singly. In spite of this some researchers continued to use the trait approach.

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Lipham's (1960) empirical study compared the personal characteristics (as measured by an adjective check list, the Edwards Personal Preference Schedule, and a sentence completion test) of eighty-four principals, with their total rank of effectiveness as seen by the upper administrators. Effective principals were somewhat higher on activity drive, achievement drive, mobility drive, social ability, feelings of security, and emotional control than less-effective principals. The results though were somewhat inconclusive.

Similarly Van Fange's (1963) study of teachers and principals using the Meyers-Briggs Type Indicator to measure personality traits showed principals to be the more homogeneous group in terms of personality structure. Neither of these studies produced findings definitive enough to be useful in selecting educational leaders. They serve to emphasize Sanford's contention that "in a specific situation, leaders do have traits which set them apart from followers, but what traits set what leaders apart from what followers will vary from situation to situation" (Sanford, 1952, p. 51).

When leader trait studies proved to be of limited usefulness, researchers turned to a behavioural approach of studying leadership.

Halpin probably typifies this movement best by stating, "We will greatly increase our understanding of leadership phenomena if we abandon the notion of leadership as a trait, and concentrate instead upon an analysis of 'behaviour of

leaders'" (Halpin, 1969, p. 287). Influenced by Lewin's (1935) work on the distinction between a phenotypic (visible characteristics) and genotypic (underlying determining characteristics) approach to research, Halpin worked with Winer to modify the original Leader Behaviour Description Questionnaire.

The original Leader Behaviour Description Questionnaire as developed by Hemphill and Coons (1970) consisted of 150 items in nine categories that, under factor analysis, yielded three dimensions:

1. maintenance of membership character
2. objective attainment behaviour
3. group interaction facilitation behaviour.

Halpin and Winer (1970) modified the Leader Behaviour Description Questionnaire in studies of aircraft commanders and used factor analysis to identify four underlying factors:

1. Consideration
2. Initiating Structure
3. Production Emphasis
4. Sensitivity.

Two of the factors, Consideration and Initiating Structure, accounted for eighty-three percent of the total factor variance. Attempts to improve the contribution of the two other factors, Production Emphasis and Sensitivity, by increasing the number of items for their measurement were unsuccessful, so subsequent efforts were concentrated on developing the best possible

short scales for measuring Consideration and Initiating Structure. The final adapted instrument was the Leader Behaviour Description Questionnaire - Form XII (LBDQ) (Halpin and Winer, 1952).

The various adaptations of the LBDQ measuring structure and consideration have been used in many studies of leadership, as cited by Stogdill (1974, pp. 72-82).

The questionnaire attempts to measure leader behaviour in a specified situation, or in a given environment. As such, its predictive value for another situation is suspect. As Halpin admits:

The questionnaire measures the leader's behaviour in a specified situation - for example, as the commander of an aircrew, or as an administrator in a public school - but does not purport to measure an intrinsic capacity for leadership. But whether individuals tend to employ the same style of leader behaviours in different situations is an empirical question that remains to be answered (Halpin, 1969, p. 292).

Korman (1969) reviewed the literature extensively on the relationship of Initiating Structure and Consideration. He examined not only the literature presented, but wrote as well to acknowledge leaders in the field for information on unpublished and ongoing research. He found a predominance of

low to moderate correlations between these dimensions and other indicators of effectiveness such as ratings by superiors and subordinates. There was almost no evidence on the predictive validity of the two dimensions.

Greenfield (1968) attacks the problem by looking at some of the shortcomings of the LBDQ. He says it lacked a theory base initially and was widely used because it provided a quick, easy description of the leader behaviour in groups. Because it merely describes leader behaviour at a single point in time, it is not adequate to describe complex behaviour processes within an organization. One of the dangers of using a single instrument as much as the LBDQ has been used is that it may become legitimized and enshrined because of its widespread use and popularity and its limitations overlooked. Clearly more dynamic statements about leadership processes are needed. Greenfield suggests Homans' approach may be a better answer.

Homans (1950) characterizes the leader as the person in the group that moves it from one state to another. Leadership deals with active leading, with role maintenance, with authority, with obedience, and with communications channels. Ways of studying leadership might be role theory, group dynamics, or Fiedler's theory and variables (Fiedler and Chemers, 1974).

Miklos (1963) says that role theory, which explains the behaviour of individuals in a social system in terms of the expectations associated with the positions they hold in that system, is very useful in the study of administration. His study indicated that a principal has his behaviour shaped to a large degree by the expectations of him held by his teachers, his superintendent, the parents in that particular community, and his colleagues.

A study by Wiggins (1971) supports Miklos' findings. Wiggins found little variance in the behaviours associated with the principal's role. The behaviour of the principal is developed more by the expectations held for him than by his personality.

Barracough (1973) supports this view too. He says an administrator's style of leadership develops because of the organization's structure, his own personal value system, his personality, his concept of personal success, his amount of experience, and more importantly, his role expectations as perceived by others.

The importance of role expectations was illustrated by Anderson and Brown (1966) in a study of 1,551 Alberta teachers. To be rated as a good principal style of leadership was relatively unimportant. The good principal in terms of staff satisfaction, confidence in the principal, and the feeling of school success, is simply the principal who frequently leads his staff.

Other studies add support to this view.

Chase (1954) quotes two studies that showed that the school situation in which he works shapes a person's attitude more than his personal characteristics do.

McKague (1968b) found that most teachers seem to prefer working with an administrator who is concerned about all aspects of his school, who takes an interest in what teachers are doing, and who attempts to involve them in what is going on in the school. Leadership style was relatively unimportant to the teachers.

These studies seem to indicate that educational leadership in a school is largely a matter of interaction between group members and between leader and group members. What kinds of interactions are most appropriate for effective leadership depend upon the variables in that particular situation.

The most useful system for studying leadership behaviour in groups and for explaining the apparent contradictions and discrepancies in past research findings, seems to be the theory and measuring instrument incorporated in Fiedler's Contingency Model (Fiedler and Chemers, 1974).

2. Fiedler's Contingency Model

Fiedler's Contingency Model, an empirically derived theory, attempts to link leadership style and situational favourability. The theory postulates that the effectiveness of

a particular style of leadership for group performance will be contingent on the favourability of the situation in which the leader finds himself. Fiedler's basic hypothesis is that: "The performance of a group depends on both the leader's style of interacting with his group members and on the nature of the group situation in which he and his group find themselves" (Fiedler, 1967, p. 36). The theory predicts that there will be different relationships between leadership style and group performance depending upon the situational favourability.

Leadership style is determined by the leader's scores on the Least Preferred Co-worker Scale. Situational favourability is determined by three situational variables, position power, task structure, and group atmosphere or leader-member relations.

A - Leadership Style

Fiedler's research program had its beginnings in findings unrelated to leader behaviour. It was noted that effective psychotherapists perceived their patients to be more like themselves than poor therapists did. This suggested that "the individual who perceives another person as similar tends to feel psychologically close, accepting, and permissive toward him" (Fiedler, 1964, p. 153). This idea, developed further during an extensive 12-year research program involving over 800 groups led to the "Least Preferred Co-worker" (LPC) measure of leadership style used in Fiedler's Contingency Model.

This score is obtained by asking the subject to think of all the persons with whom he has ever worked and then to describe the one person with whom he found it most difficult to cooperate, and who is, therefore, his least preferred co-worker. This need not be someone the subject is working with at the time. The description of the least preferred co-worker is made in 21 eight-point scale items such as the following:

Pleasant	:	8	:	7	:	6	:	5	:	4	:	3	:	2	:	1	Unpleasant
Friendly	:	8	:	7	:	6	:	5	:	4	:	3	:	2	:	1	Unfriendly

The LPC score is the sum of the 21 item scores (Fiedler and Chemers, 1974, p. 75). In explaining the meaning of the score obtained, Fiedler states that a person with a high LPC score tends to see even a poor co-worker in a relatively favourable manner. A low LPC person perceives his least preferred co-worker in a highly unfavourable, rejecting manner (Fiedler, 1964, p. 155).

Although the innate simplicity of the LPC scale and the ease of administering it make it very attractive, clearly understanding the LPC score has been a frustrating process for many years. As Fiedler commented:

In some respects the Least Preferred Coworker score, LPC, is an almost ideal psychological measure. It takes no more than 5 minutes to administer; it consists of a short set of scale items (usually 16 to 20); it has split-half reliability of above 0.90, a test-retest reliability for adults ranging from 0.5 to 0.8; and it arouses little if any resistance on the part of subjects (Fiedler, 1967). In addition, the score has yielded consistent relations with leadership performance. On the other hand, however, the score has also been extremely resistant to any meaningful interpretation despite a persistent and intensive effort which has extended over nearly two decades (Fiedler, 1972, p. 392).

Attempts were made to correlate LPC with many personality traits and behaviour observation scores.

Fiedler's early interpretations were based on the concept of psychological distance. A person who obtained a low LPC score was seen as relatively distant and reserved while a high LPC score indicated that the person formed close and intimate relations and tended to become emotionally involved with others (Fiedler in Cartwright and Zander, 1960, pp. 591-592). Fiedler abandoned this interpretation when later research failed to substantiate it.

A study by Bass et al. to determine relationships between LPC scores and personality variables such as social desirability, tendency to use extremes, self-esteem, ideal self-esteem, esteem for parents, and other variables, involving 163 male college students yielded low and insignificant results (Bass, Fiedler, and Krueger in Fiedler, 1967, pp. 272-280).

A number of studies (Weissenberg and Gruenfeld, 1966; Fishbein, Landy and Hatch, 1969; Mitchell, 1970) gave some support to the premise that the LPC measures cognitive complexity.

A number of studies examined the interpretation of LPC score as an index of relationship-orientation vs. task-orientation. Graham in a study of 116 life insurance agents found support for the notion that high LPC leaders tend to be human relations oriented while low LPC leaders tend to be task oriented (Graham, 1968). Hawley's study of elementary schools resulted in similar findings as reported by McKague (1970, p. 8). Hawley related principals' LPC scores to measures derived from the Leader Behaviour Description Questionnaire Form XII. In schools where the behaviour of the principal was not readily accepted by the staff he found a significant correlation of $-.523$ between LPC scores and the system oriented factor. Jones and Johnson (1972) compared the LPC scores of 53 managers with their subordinates' ratings using Likert's Profile of Organization Characteristics, which measures the administrative climate of organizations. They found that high LPC leaders were perceived as having a more participative, human relations, emotionally supportive organization than low LPC leaders.

From these studies it would seem that high LPC leaders tended to be relations-oriented while their low LPC counterparts tended to be task-oriented. Fiedler agreed with this

interpretation at first (Fiedler, 1967, p. 45) until further research findings showed somewhat different results.

Sample and Wilson compared the behaviour of leaders whose groups were conducting class projects involving laboratory experiments. The authors identified three phases in the experiment: planning it, running it, and writing the report. Running the experiment was considered most structured and planning it the least structured. The high LPC leaders made most task-relevant remarks in the running phase and fewest in the planning phase. The low LPC leaders made more positive social emotional responses in the running phase and fewest in the planning phase while the high LPC leaders made fewer positive emotional responses in the running phase and more in the planning phase (Sample and Wilson, 1965). In other words, both high and low LPC leaders are friendly and considerate to group members and both are task-oriented, but at different times during the task. It is not the occurrence of the behaviour which distinguishes the two kinds of leaders, but the timing of the behaviour.

In a large and complex study of group creativity using Belgian Navy teams (Fiedler, 1966) groups performed under different conditions of situational favourableness. Low LPC leaders were more considerate in favourable situations while high LPC leaders were more considerate in the relatively less favourable situations.

A study by Gruenfeld et al. using Bales' Interaction Process Analysis to analyze the behaviour of high- and low-LPC leaders under conditions of high, low, and moderate stress yielded supporting evidence as well (Gruenfeld, Rance, and Weissenberg, 1969, pp. 99-107).

These studies and others led Fiedler to conceptualize a new interpretation for LPC scores. As Fiedler said:

The LPC score generally has been interpreted as measuring a task- versus relationship-orientation (high LPC persons being relationship-oriented, low LPC being task-oriented). This interpretation, based primarily on weak observational data and leader descriptions, turns out to present an approximate but grossly over-simplified picture (Fiedler, 1972, p. 392).

Fiedler's new interpretation distinguishes leadership style from leader behaviour:

Leaders tend to behave in a human relations-centered manner in one situation but in a job-centered manner in another. This means that we cannot define leadership style by leader behaviour. There are no generally considerate leaders, only leaders who are considerate in some situations and inconsiderate in others (Fiedler and Chemers, 1974, p. 102).

In his present interpretation of LPC scores, Fiedler postulates complex interactions between LPC and situational favourability. He interprets the LPC score as an index of the hierarchy of goals and needs by which each person orders his priorities and hence his behaviour. When the situation is relatively stressful or provides the leader with inadequate power and influence, the high LPC person will seek to

accomplish the goals most important to him, the needs for affection, approval, and status. The low LPC person will seek to attain his most important goals, the needs involving task accomplishment. When the situation is very favourable, and the leader's influence and control ensure the attainment of his primary goals, he will seek to satisfy his secondary goals. For the high-LPC leader, now assured of his group's acceptance, this means a task-accomplishment orientation and seeking status and esteem from others (e.g., his superiors). The low-LPC leader in the highly favourable situation, now assured of his major goal, task accomplishment, will be considerate and person-oriented.

Fiedler maintains that different situations require different leadership behaviours. The effectiveness of a group is contingent upon the leadership style of the leader and the situational favourability of the group interaction.

B - Situational Favourability

The favourability of the situation depends upon the basis of three dimensions each of which supposedly affects the degree to which the leader has influence over his group members. These three dimensions are:

1. The affective relations between the leader and his members. A favourable score means the leader feels liked and accepted by the group (Fiedler and Chemers, 1974, pp. 64-66).

2. The structure of the task. This indicates the degree to which the job can be spelled out and hence controlled by the leader (Fiedler and Chemers, 1974, pp. 66-68).

3. Position power. This represents the formal power at the leader's disposal as distinguished from the power he may have because of his ability to attract or inspire loyalty (Fiedler and Chemers, 1974, pp. 68-69).

These three dimensions can be combined to give a model shaped like a cube. Each dimension can be divided in half (high or low—favourable or unfavourable) to give an eight-celled figure. Each cell is referred to as an octant (see Figure 1).

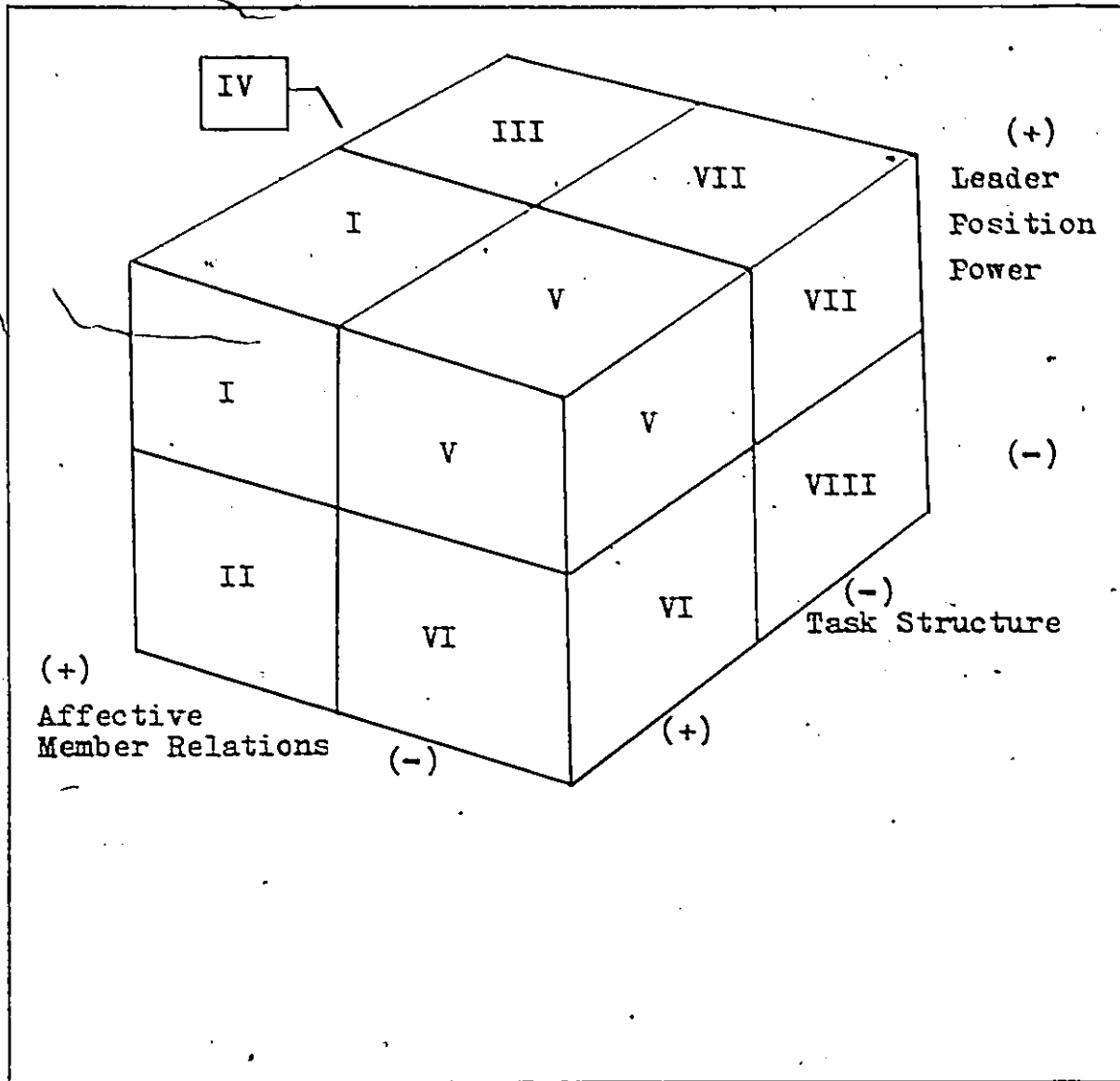


Figure 1

A model for the classification of group task situations.

Fiedler, Fred E., "The Contingency Model: A Theory of Leadership Effectiveness", in H. Proshansky and B. Seidenberg, Basic Studies in Social Psychology, Holt-Rinehart & Winston, New York, 1965, p. 541.

These cells can be considered in terms of the favourableness for the leader concept, Figure 2.

Octant	I	II	III	IV	V	VI	VII	VIII
Leader-member relations	good	good	good	good	poor	poor	poor	poor
Task structure	high	high	low	low	high	high	low	low
Position power	strong	weak	strong	weak	strong	weak	strong	weak

Figure 2

Favourableness for the Leader Concept

C - Fiedler's Contingency Model of Leader Effectiveness

Fiedler's theory states that the effectiveness of a particular leader whether high LPC or low LPC will be contingent on the favourability of the situation in which the leader finds himself that can be represented by one of the octants in Figures 1 or 2. Theoretically, the low-LPC leader will be more effective in situations which are very favourable to the leader. Empirical evidence suggests that octants I, II, and III represent favourable situations. Similarly, the theory suggests that the high-LPC leader will be more effective in situations that are moderately favourable to the leader.

Empirical studies show that octants IV, V, and VI represent moderately favourable situations. Octant VII has seldom been researched, and the empirical evidence from those studies is ambiguous. Octant VIII represents a very unfavourable situation. Although the theoretical explanations of results of studies investigating leader behaviour in octant VIII are rudimentary at best, the empirical evidence shows that low-LPC leaders are more effective than high-LPC leaders in this octant.

The Contingency Model of Leadership Effectiveness is illustrated in Figure 3.

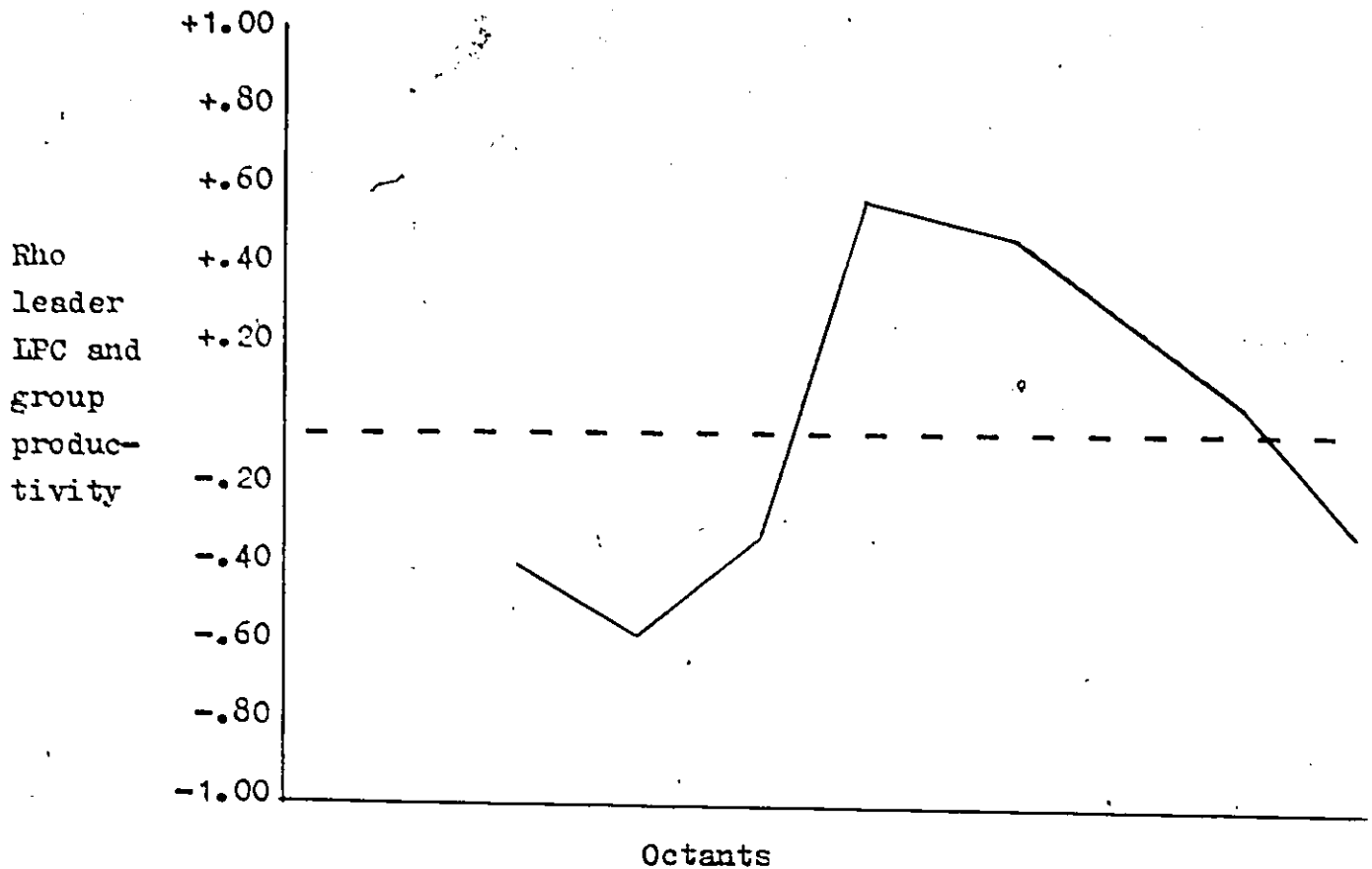


Figure 3

Contingency Model of Leadership Effectiveness

Piedler, Fred E., and Martin M. Chemers, Leadership and Effective Management, Scott, Foresman, Glenview, Illinois, 1971, p. 86.

As can be seen from Figure 3, there is a curvilinear relationship between the correlation of leader's LPC score and group performance, and the favourableness of the situation. Although Fiedler initially treated the eight octants as separate entities in his development of the model, he now treats situational favourability as a continuum from highly favourable to highly unfavourable and deals basically with three categories of situational favourability: very favourable, moderately favourable, and unfavourable (Fiedler and Chemers, 1974, p. 104). The very favourable category would include octants I, II, and III, the moderately favourable category would include octants IV, V, VI, and VII, and octant VIII would be classified as unfavourable.

Low-LPC leaders are effective in the very favourable and unfavourable situations and relatively ineffective in situations of the moderately favourable category. High-LPC leaders are effective in the moderately favourable situations and relatively ineffective in highly favourable and unfavourable situations.

McKague (1970, pp. 1-14) pointed out that one of the more useful features of Fiedler's approach to leader behaviour is the fact that the leadership style is determined on the basis of the attitudes of the leader and not on the perceptions of either followers or superiors. Viewing leadership in terms

of the perceptions of followers or superiors has been a point of criticism of some theories, especially if the followers or superiors are instrumental in determining the other dimension to be related to leadership style. One questions whether the correlations obtained by such practices are relationships of the dimensions being studied or merely correlations of the same underlying framework or attitudes in the subject's cognitive and affective structures. Fiedler's approach eliminates that criticism.

Although Fiedler's theory is not a traditional trait theory, but has a personality dynamics basis as suggested by Stogdill (1974, p. 82), it has been misconstrued as a trait theory or a trait theory derivative by some authors. As such, it has shared the recent relative disfavour accorded to trait theories, and has been attacked in this light. For instance, Graen, Alvares and Orris in three articles attempted to cast doubt on the plausibility of the Contingency Model. Their first paper (Graen, Alvares and Orris, 1971a, pp. 205-210) discussed a number of methodological issues concerning empirical studies used to formulate the Contingency Model. While their points and recommendations are indeed worthy of consideration in respect to the research design of the experiments leading to the formulation of the theory, they do not validly refute the empirical findings of studies designed to test the usefulness of the Contingency Model.

Their second paper (1971b, pp. 196-201) described two parallel experimental studies designed to replicate and further study the Contingency Model. Both studies yielded results that were inconsistent with those predicted by the Model. However, in a rebuttal, Fiedler (1971) pointed out that in their study they failed to follow Fiedler's definitions of terms in that position power manipulations were inadequate, and structured and unstructured tasks were insufficiently differentiated.

The third paper by Graen, Alvares and Orris (1970) was a compilation of the other two papers. While these attacks on the Model have not been decisive, they have illustrated one of the problems encountered in testing Fiedler's theory. The Contingency Model is difficult to test experimentally because it is very difficult if not impossible to create the dimension "position power" meaningfully under experimental conditions. Under Fiedler's definition of the term, "position power" does not lend itself to manipulation as illustrated in a study by Shiflett and Nealy (1972). In this study, position power was supposedly manipulated to test the Contingency Model in a situational engineering sense in octants III and IV. The authors themselves admit that they effectively failed to alter position power as seen by the leaders and, consequently, their study did not yield very useful results. Since "position power" does not lend itself to manipulation under Fiedler's definition

of the term, it is difficult to test the theory experimentally.

However, the theory has been tested and supported empirically. Hunt (1967) in his study of three business organisations found supportive evidence for the theory. A study by Graham (1968) involving 116 life insurance agents supported the Contingency Model. In a study by Hill (1969), Fiedler's Model was tested among 102 supervisors in both interacting and coacting groups in an electronics firm and a teaching hospital. The findings supported Fiedler's Model.

More recently, a study by Scheier (1978) examined the LPC scores of emergent leaders rather than appointed leaders and also examined the behaviour of emergent leaders of both sexes. The study was confined to octant II of the Model. Persons who emerged as leaders, regardless of sex, had significantly lower LPC scores than non-leaders, as predicted by the Model.

These studies and four by Fiedler himself (1966, 1970, 1972, 1977), to mention a few, support the usefulness of Fiedler's Contingency Model for leadership studies in group situations.

The Contingency Model has been used in a number of studies in schools. The first two studies were conducted by McNamara in 1966 and 1968. In his first study, as described by Garland (1973, pp. 53-56), McNamara administered the LPC

and GA scales to 32 elementary school principals in Alberta. Leader position power and task structure were not measured. It was assumed that position power was low and task was unstructured. Thus McNamara placed schools with good GA (scores above 69) in octant IV and schools with poor GA (scores below 64) in octant VIII. School effectiveness was rated by school system administrators, and by school staffs. Spearman Rank Order correlations were made between LPC scores and each of the two effectiveness ratings. For schools with good GA, the correlation between LPC and supervisors' ratings was $-.48$ ($n = 11$) and between LPC and staff ratings was $-.32$. For schools with poor GA, the correlations were $.31$ ($n = 12$) and $-.34$ respectively. These results were in opposite directions to what the Contingency Model predicted. The correlations between LPC and staff ratings were discounted since it was possible that job satisfaction would unduly influence the ratings.

On the basis of the relationship between LPC scores and supervisors' ratings of school effectiveness, McNamara revised his assumptions on principal position power from low to high and placed good GA schools in octant III and poor GA schools in octant VII. Viewed in this light, his findings supported the Contingency Model.

In his second study as reported by Fiedler (Fiedler and Chemers, 1974, pp. 131-134) McNamara involved both elementary

and secondary principals, who were divided into those with less than two years, and those with more than three years, of experience as principals. The principals were further divided into those with low and those with high LPC scores. School effectiveness was rated by school superintendents in the case of the elementary schools, and by the results on ninth- and twelfth-grade province-wide achievement tests in the secondary schools. The average performance scores of experienced and inexperienced principals with high and low LPC scores were compared in both the elementary and secondary school settings. In the elementary school setting, the best performers as perceived by school superintendents were inexperienced high-LPC principals and experienced low-LPC principals. In the secondary school setting, the reverse was true, with inexperienced low-LPC principals and experienced high-LPC principals doing best.

If the experienced elementary school principal is seen to be in a highly favourable situation and the inexperienced elementary principal in only a moderately favourable situation, and if the experienced secondary school principal is viewed as being in only a moderately favourable situation and the inexperienced secondary school principal in an unfavourable situation, as Fiedler suggests (Fiedler and Chemers, 1974, pp. 133-134), then McNamara's findings are explained by, and support the Contingency Model. However some of the methodological

shortcomings of McNamara's study, such as his treatment of GA scores, where he did not provide descriptive statistics for the GA scale, his lack of validity and reliability data for provincial examination results, and the relative unreliability of his untrained administrators who rated elementary schools, make the findings inconclusive.

McKague, in his 1968 study, examined the behaviour of urban high school principals in 39 Saskatchewan high schools (McKague, 1970, pp. 7-14). The principals' LPC scores were correlated with the subtests of the Organizational Climate Description Questionnaire yielding significant negative correlations with Production Emphasis, Thrust, and Consideration. McKague interpreted these results to mean that low-LPC principals tend to behave in a manner which emphasizes production and yet promotes member satisfaction.

Hawley investigated the relationship between LPC scores of 37 elementary school principals and measures derived from the Leader Behaviour Description Questionnaire Form Twelve (Fiedler, 1972, pp. 401-402). The items of the LBDQ-XII, upon analysis, yielded two factors, person-orientation and system-orientation. When principals' LPC scores were correlated with these two factors, no significant relationships were found across the sample. However, when GA was taken into account, there were significant relationships between LPC and person-orientation (.45 for $n = 13$) and between LPC and system-orientation

(-0.53 for $n = 13$) for low GA schools. Thus when the school situation was unfavourable (low GA) high-LPC principals were seen as person-oriented and low-LPC principals were seen as system-oriented, as predicted by the Contingency Model.

Similarly Williams and Hoy studied the relationship between LPC scores and school effectiveness as measured by Ryan's Teacher Characteristic Schedule for Elementary Teachers in 42 elementary schools in New Jersey (Williams and Hoy, 1971, pp. 66-73). No significant relationship was found between leadership style and effectiveness until GA or principal-teacher relations were taken into account. When schools with favourable principal-teacher relations were separated from those with less favourable principal-teacher relations the results were different. In schools with favourable principal-teacher relations, there was a significant negative correlation between LPC scores and school effectiveness. In schools with less favourable principal-teacher relations, there was a positive, but not statistically significant, correlation between LPC scores and school effectiveness measures. These results tend to support the Contingency Model.

Thomson tested the Model in a study of seven low-LPC and seven high-LPC principals selected from an initial sample of 92 experienced secondary school principals (Thomson, 1972). Using the Barrett-Leonard Relationship Inventory administered to students as a test of school effectiveness, he found that

in schools led by low-LPC principals, teachers were more effective in providing a helping relationship. However, Thomson used a GA of 55 as his cut-off point for identifying good GA schools, whereas Posthuma (1970) recommended 65 as the cut-off point. In fact all the schools in Thomson's sample had a GA score of less than 68. Thus it is possible for the group atmosphere of the schools studied to be poor rather than good. Since Thomson assumed that the group atmosphere was good, his interpretation of results may be questionable.

Garland (1973) investigated the relationship between principal-teacher interaction and staff performance using Fiedler's Contingency Model and Stern's secondary school environmental factors. In general, Garland's results did not provide strong support for the Contingency Model or Fiedler's concept of organizational engineering.

It is interesting to note that, although Fiedler's model incorporates three factors that affect the situational favourability for the leader, namely leader-member relations, task structure, and position power, only the first has been examined as a variable in all the studies concerning schools that have been cited. None of these studies examined position power or task structure as a variable. There is general consensus that position power is high in schools. As for task structure, the opinions differ. McNamara (1968) and McKague (1968).

claimed the task is unstructured in schools. Fiedler (Fiedler and Chemers, 1974) felt that it is structured.

While leader-member relations is acknowledged to be the most important factor in situational favourability for the leader, task structure is considered to be second in importance in the Model (Fiedler, Chemers, and Mahar, 1976, p. 79). Surely there is a need for a study of schools that takes task structure into consideration when applying Fiedler's Model, particularly in light of the differences in task structure in "open" and "traditional" schools. A description of "open" and "traditional" schools follows to illustrate this very point.

3. Open and Traditional Schools

The term "open" schools refers to the philosophical position of the school and not to open architectural design. An "open" school is one whose educational philosophy is that of classroom openness. Classroom openness is defined as: . . . a construct which flexibly combines all three elements of teacher-centeredness, child-centeredness, and material-centeredness (Walberg & Thomas, 1971, p. 5). In an extensive review of the literature concerning classroom openness, Walberg & Thomas identified eight major dimensions of the Construct:

1. Provisioning for learning - flexibility in organization of instruction and materials

2. Diagnosis - emphasis on child's development rather than examination scores
3. Instruction - more individual attention and choice
4. Evaluation - individual standards emphasized. Record-keeping evaluates pupil growth rather than correctness
5. Humaneness - respect for children, openness, warmth
6. Opportunities to promote growth - use of community, colleagues, and advisors
7. Assumptions - children's innate curiosity and ability to make decisions
8. Self-perception of the teacher - resource for helping children rather than disseminator of body of knowledge (Walberg & Thomas, 1971, p. 115).

Open classrooms generally have a number of characteristics in common. There is usually a number of work spaces arranged to accommodate a diversity of learning experiences. The children usually move about freely using many available resources to answer their questions with or without teacher guidance. They may work as individuals or in groups of different sizes. Rarely would all the pupils be working at the same activity for the same length of time. Rarely would all the pupils be using the same textbook or would the teacher assign the same task to all pupils.

The role of the teacher in an "open" school is different, too. Since the idea that if a child is meaningfully engaged in

an activity, learning is taking place, is basic to the philosophy of classroom openness (Silver, 1976, p. 35), the teacher's role is that of facilitator of learning rather than dispenser of knowledge or transmitter of learning.

In contrast, a "traditional" school tends to operate in a much more prescriptive, rigid, uniform, and standardized manner. All pupils would use the same books and materials for the same assignment. If there are groups in some subject areas such as reading, this grouping would tend to be the same for a considerable period of time. Tasks tend to be teacher assigned and, in fact, teacher centered.

The role of the teacher is different, too. The teacher is seen as the dispenser of knowledge, giver of learning, or transmitter of culture.

It must be emphasized that some classrooms that have been labelled "open" because of their open architectural design are not "open" in the philosophical sense. If the teacher does not possess the qualities necessary to function in an "open" philosophical setting, and does not accept his role as a teacher as being that of a facilitator of learning rather than that of a dispenser of knowledge or giver or transmitter of learning, then the so-called "open" classroom may indeed be quite "traditional" as noted by Traub et al:

. . . it is obvious that schools that are architecturally open do not necessarily practice open education. Equally obvious is the fact that schools that do practice open education are not necessarily open in architecture" (Traub et al., 1972, p. 70).

Because of the different role expectations for teachers and the different philosophies underlying the two types of schools, these two types of schools operate quite differently.

Consequently, the role of the principal is different in these two types of schools. In an "open" school, the teachers are involved with planning as a team sometimes under the direction of a "cell" or "pod" chairman, or in some schools under the direction of an emergent but non-titled teacher. The result is that some of the duties of making rules, minor problem solving, initiating change, and exercising school discipline that are the principal's jurisdiction in "traditional" schools are taken over by the teachers in "open" schools. The principal in effect, because of his role expectations, is in a position of sharing some aspects of his authority with the teachers and losing some powers of situational control. For the school principal, then, it is apparent from the point of view of task structure in terms of Fiedler's Model that there should be a difference of degree of task structure in the two types of schools.

In the past sections, Fiedler's Contingency Model of Leadership Effectiveness has been examined and studies of the application of his Model in both non-educational and school

settings have been discussed. It is now appropriate to examine organizations and their structure to see how Fiedler's Model is applicable to organizational situations and to the leadership that is deemed necessary for the functioning of organizations.

4. Theories of Bureaucracy

We very much live in an organizational world. In fact, one of the chief characteristics of our Western society and culture is that it is an organizational society. Etzioni (1964, p. 1) says:

Our society is an organizational society. We are born in organizations, and most of us spend much of our lives working for organizations. We spend much of our leisure time paying, playing, and praying in organizations. Most of us will die in an organization, and when the time comes for burial, the largest organization of all—the state—must grant official permission.

Etzioni left schools out of his remark, but for anyone connected with education, the professional environment is an organization. Studying, analyzing, and understanding this organization should be of interest to anyone connected with education.

The great pioneer sociologist, Weber, one of the first to systematically describe the observed characteristics of the formal organization, began his study (Weber, 1968) by considering the aspects of legitimate authority. The three sources

of authority that legitimize the power of superiors are:

1. Rational grounds - resting on a belief in the 'legality' of patterns of normative rules and the right of those elevated to authority under such rules to issue commands (legal authority).
2. Traditional grounds - resting on an established belief in the sanctity of immemorial traditions and the legitimacy of the status of those exercising authority under them (traditional authority).
3. Charismatic grounds - resting on devotion to the specific and exceptional sanctity, heroism, or exemplary character of an individual person, and of the normative patterns or order revealed or ordained by him (charismatic authority) (Weber, 1968, p. 328).

Legal authority, the first one mentioned, is the only one relevant to the organizational system referred to as "bureaucracy".

Punch (1969, pp. 43-57) distinguished three basic ideas and usages of the term "bureaucracy":

1. used globally - synonymous with large organization or formal organization whose purpose is coordinating the work of many individuals.
2. referred in detail to the internal structure of organizations. Organizations differ in bureaucratization by the degree of stress placed on the various bureaucratic characteristics.
3. vernacular usage - used to symbolize arbitrary power, pettiness, inefficiency, red tape, slavery to rules, and so on.

The second idea of bureaucracy as distinguishing internal organizational structure is the concept applicable

to schools and this is the concept that Weber envisaged when he attempted to define the ideal-type bureaucracy as an organizational method of achieving stated goals. Weber listed the conditions under which workers in an administrative organization would function:

1. workers are organized in a clearly defined hierarchy of offices
2. each office has a clearly defined sphere of competence
3. candidates are appointed on the basis of technical qualifications
4. workers are subject to strict and systematic control (Weber, 1968, pp. 333-334).

The literature is not in agreement as to Weber's bureaucratic model. Punch (1969, pp. 44-45) said, "For our purposes the initial formulation of the bureaucratic model by Weber is unclear—it is possible to find twenty-six characteristics in his description. Certainly there is confusion in subsequent literature".

Blau (1956), often cited in studies, listed specialization, hierarchical authority, rules and regulations, and impersonality.

The characteristics of bureaucracy as listed by major authors are listed in a table by Hall (1963, p. 34). Hall

isolated six fundamental characteristics:

1. a division of labour based on functional specialization
2. a well-defined hierarchy of authority
3. a system of rules covering the rights and duties of positional incumbents
4. a system of procedures for dealing with work situations
5. impersonality of interpersonal relations
6. promotion and selection for employment based upon technical competence.

5. Studies Measuring Bureaucracy

Hall also developed an instrument he called an Organizational Inventory (OI) for measuring the extent to which an organization is bureaucratic, based upon his six dimension concept of bureaucracy. This instrument provided a means for studying a variety of social organizations.

The possibility of important relationships between organizational structure and the behaviour of school administrators, teachers, and pupils, combined with the availability of an instrument for examining organizational structure has led to a number of studies.

Moeller (1962) examined the relationship between bureaucracy and teachers' sense of power in a study in 1962 which is

usually acknowledged as the first of these studies. Accepting Blau's model of bureaucracy, and employing an eight-item forced choice instrument to measure degree of bureaucracy, and a questionnaire based on Seeman's (1959) definition of powerlessness, he surveyed 692 teachers to study the relationship between bureaucracy and teachers' sense of power. Contrary to his major hypothesis, teachers in bureaucratic schools were higher in sense of power. Sense of power appeared to be influenced by many diverse variables and a bureaucratic setting provided the teacher with a predictable milieu in which to operate.

MacKay in 1964 at the University of Alberta carried out a study that he described (MacKay, 1964b, pp. 5-8). MacKay used Hall's definition of bureaucracy and Hall's Organizational Inventory mentioned earlier. MacKay studied school efficiency, in terms of pupil achievement as measured by Department of Education examinations in relation to organizational structure. He found that highly bureaucratized schools were inefficient compared to less bureaucratically organized schools.

Punch (1967) felt that Hall's six dimensions were too broad in scope to effectively study the structure of school organizations. He used a factor analysis technique and showed factorial homogeneity for four of Hall's bureaucratic dimensions:

1. a well-defined hierarchy of authority
2. a system of rules covering the rights and duties of positional incumbents
3. a system of procedures for dealing with work situations
4. impersonality of interpersonal relations

Punch reasoned that "specialization" and "technical competence" were not discerning dimensions in differentiating degree of bureaucracy in schools because of the nature of teacher training and teacher qualifications and so could be excluded. This would be particularly true of the elementary schools, which were the schools Punch was examining. On this basis, Punch proposed that bureaucratic structure in schools could be considered a unidimensional, homogeneous variable if only the major cluster of Hall's four dimensions are included in the measuring instrument since this cluster of dimensions accounted for 81 percent of the common variance.

When the Leader Behaviour Description Questionnaire - Form Twelve was factor analysed, it yielded two factors which describe a leader's style as "system-oriented" or "person-oriented".

Using this refined Organizational Inventory and the Leader Behaviour Description Questionnaire, Form XII, Punch studied the relationship between leader behaviour style and

school bureaucratization in 50 elementary schools in urban Southern Ontario. The two factors "system-orientation" and "person-orientation" accounted for 57 percent of interschool variation in bureaucratization. With the aid of data provided by sub-hypotheses, Punch concluded that:

Largely because of the influence associated with the principalship, the principal's leader behaviour style is by far the most important single determinant of level of school bureaucratization. Using as predictors leader behaviour, together with school size, system size, and the length of time the principal and staff have been in the school, up to 75% of interschool variation in bureaucratization may be accounted for (Punch, 1967, p. 2).

Prediction was not significantly improved by seven other variables relating to sex, age, and experience of principal and staff. In his discussion of results, Punch stated, "The elementary school principal holds a position of high effective influence and more particularly, that his leader behaviour style is by far the most important single determinant of school bureaucratization" (Punch, 1967, p. 197).

Another important contribution of Punch's study to the traditional bureaucratic theory is the clarification of the concept of bureaucracy revealing the advantage of utilizing only four dimensions rather than the six factorially heterogeneous dimensions previously identified. This modification of the Organizational Inventory has been used in other studies of schools.

Marjoribanks (1970, pp. 355-357) used this modified Organizational Inventory and the Rokeach Attitude Scale (Form E) to analyze the relationship between the dogmatic structure of school principals and the bureaucratic organization of schools.

Gosine and Keith (1970, pp. 1-5) used this modified Organizational Inventory in a study of the relationship between bureaucracy and teacher personality needs, and teacher satisfaction.

From this overview of the relevant studies it is possible to consolidate the contributions they make to an examination of bureaucratic structure of schools. The first major contribution is the clarification of the bureaucratic concept by refinement of the Organizational Inventory. There is considerable advantage in utilizing only four clustering unifactorial dimensions rather than six heterogeneous dimensions. A second major contribution is the explanation of leader behaviour afforded by the Contingency Model of Leader Effectiveness. The third major contributor is the finding by Punch (1967) that leader behaviour style was the most important determinant of school bureaucratization.

6. The Need to Relate the Contingency Model and Bureaucratization

Thus far, the review of the literature has located only two studies relating bureaucracy and leadership behaviour.

Punch (1967) used the refined Organizational Inventory and the

Leader Behaviour Description Questionnaire to study the relationship between leader behaviour style and school bureaucratization as already described.

McKague (1968a), using Group Atmosphere scores as an intervening variable, studied the relationship between the principals' LPC scores and certain behaviours and attitudes of teachers in 39 high schools in Saskatchewan. Teacher behaviours were measured by scores on the subtests of the Organizational Climate Description Questionnaire. Teacher attitudes were measured using questionnaires of

- (a) teacher ratings of the effectiveness of the principal
- (b) teacher ratings of school effectiveness
- (c) teachers' satisfaction with all aspects of their job.

Scores on four subtests of the OCDQ, Disengagement, Hindrance, Esprit, and Intimacy, were correlated with principals' LPC scores for the total sample and for schools with high and low Group Atmosphere scores.

Across the total sample and for low GA schools no significant correlations were found. For high GA schools there was a significant negative correlation for Esprit, a significant positive correlation for Disengagement, a positive but not significant correlation for Hindrance, and a negative but not significant correlation for Intimacy.

The three teacher ratings of principal effectiveness, school effectiveness, and teacher job satisfactions were

correlated with principals' LPC scores for the total sample and for schools low and high on GA. For the total sample and for low GA schools, no significant correlations were found. However there were significant negative correlations for all three variables for schools high on GA.

To the extent that the subtests of the OCDQ mentioned are measures of school bureaucracy, McKague studied the relationship between leadership style and school bureaucratization. McKague concluded that a school's Group Atmosphere has a significant effect on the relationship between the principal's leadership style and teacher behaviour and attitudes. He concluded that low LPC principals are associated with the most desirable behaviours and attitudes on the part of teachers. He concluded that low LPC principals tend to behave in a manner which emphasizes production and yet promotes member satisfaction. Such principals, while expecting a high performance level from their subordinates and while behaving in a controlling and managing manner in their relations with others, still managed to display a great deal of concern for teachers as worthy individuals. While this finding is inconsistent with the concept of LPC scores being a measure of task-oriented or person-oriented behaviours, it does agree with the findings of Sample and Wilson (1965) that both high and low LPC leaders are friendly to group members but at different times during the task. It is not the occurrence of positive behaviour

which distinguishes the two kinds of leaders, but the timing of the behaviour.

Neither McKague's nor Punch's study offers any explanation as to why leadership style should be a determinant of school bureaucratization. The type of study needed is one that will show predictive reliability in terms of a theoretical model that offers an explanation of the relationship. The following sections outline the statement of the problem and its rationale, and the resulting specific hypotheses.

7. Theoretical Framework For the Study

Fiedler's theory states that the effectiveness of a particular leader will be contingent upon the leader's style of interacting with his group members and the favourability of the situation in which the leader finds himself that can be represented by one of the octants in Fiedler's three-dimensional lattice structure (Fiedler and Chemers, 1974, p. 81). The favourability of the situation is the degree to which it provides the leader with control and influence over the group (Fiedler, Chemers, and Mahar, 1976, p. 26).

In an updated explanation of his Contingency Model Fiedler stated:

This theory holds that the effectiveness of a group or an organization depends on two interacting or "contingent" factors. The first is the personality of the leaders which determine their leadership style. The second factor is the amount of control and influence which the situation provides leaders over their group's behaviour, the task, and the outcome. This factor is called "situational control". (Those familiar with the Contingency Model will recall this as "situational favourableness", a term which was confusing to some people) (Fiedler, Chemers, and Mshar, 1976, p. 3).

In his suggestions for organizational engineering Fiedler (Fiedler and Chemers, 1974, pp. 150-151) has mentioned three basic ways of modifying the situational favourableness to the leader:

1. change his subordinates, and hence alter leader-member relations
2. change operating procedures and hence alter task structure
3. change the leader's position power.

Should a principal find himself in a situation where the particular mix of his personality and the situation is not a favourable one for his effectiveness, he has three choices. He can be ineffective, he can change his personality to fit the situation, or he can change the situation to fit his personality. No principal willingly wants to be ineffective. While it may be theoretically possible to change one's personality and the motivational structure that is part of personality, as Fiedler says, "This is at best a difficult and uncertain undertaking" (Fiedler et al., 1977, p. 465).

It follows logically then that a principal in an unfavourable situation will change the organizational structure so as to make conditions more favourable for himself. In effect a principal will practice organizational engineering in an attempt to maximize his effectiveness.

According to Fiedler's leader-match concept (Fiedler, Chemers, and Mahar, 1976) an individual's behaviour is largely determined by his own personal motivational system and the degree to which the individual's attainment of his resultant goals is secure or threatened.

Punch (1967) has shown that principals have a great deal of control over the organizational structure of their schools. In fact, they can and do determine the organizational structure.

Consistent with his personal motivational system as indicated by his LPC score, the principal will change the school's organization to gain his preferred style of operation. This will be reflected in the Organizational Inventory scores for that school.

In his suggestions for engineering situational control, Fiedler (Fiedler, Chemers, and Mahar, 1976, pp. 153-157) has mentioned three basic ways of changing the situational favourableness to the leader:

1. modifying leader-member relations
2. modifying task structure
3. modifying position power.

Leader-member relations can be altered by spending more, or less, informal time with subordinates, organizing out-of-school social activities that include staff, increasing or decreasing principal's availability to subordinates, sharing or not sharing information from upper administration freely with staff, raising morale by giving special recognition to staff members, etc.

Task structure can be altered, also, by developing a procedures handbook, issuing directives, guidelines and outlines, or, by cutting down on these same activities if they are presently being used, consulting or not consulting with staff on prepared program changes, etc.

Similarly, position power can be made stronger or weaker by exercising the principal's organizational powers fully, or by delegating authority, remaining aloof or being "one of the gang", insisting or not insisting on use of organizational communications channels, etc.

The Organizational Inventory as modified by Punch (1967) measures four items that characterize a bureaucracy:

1. a well-defined hierarchy of authority
2. a system of rules covering the rights and duties of positional incumbents
3. a system of procedures for dealing with work situations
4. impersonality of interpersonal relations.

These four items reflect position power, interpersonal

(leader-member) relations, and task structure. Therefore, the different ways that high and low LPC principals will react to engineer situation control under the given conditions of their schools should be reflected in Organizational Inventory scores for their schools.

In his leader-match concept, which is based on his Contingency Model, Fiedler (Fiedler, Chemers, and Mahar, 1976) treats the different situational categories as a continuum rather than eight separate categories. He makes three differentiations in terms of situational control, namely high, moderate, and low. Furthermore, he gives leader-member relations a weighting of double that of task structure and four times that of position power, under usual circumstances. However, either position power or task structure can be the determining factor in very special circumstances. In the military situation, a general in a training session with a group of privates has few concerns about either group atmosphere or task structure. His rank gives him situational control. Similarly, in the last stages of a space shot countdown, task structure is paramount and situational control is determined by it alone. Normally, though, Fiedler's stated weightings apply.

Fiedler explains leader behaviour in terms of needs satisfaction of primary and secondary goals for two different motivational systems under stressful or non-stressful conditions as perceived by the leader.

The high LPC leader under stressful conditions seeks to satisfy his primary need which is good interpersonal relations. Under non-stressful conditions, when the leader feels quite secure and relaxed because the major goal of having close relations with subordinates has been achieved, the high LPC leader seeks the secondary goal of esteem and admiration of others. In such a leadership situation where esteem and admiration from superiors is the result of task performance a high LPC leader will tend to behave in a task-oriented manner even at the expense of detrimental relations with immediate subordinates.

On the other hand, the low LPC leader, in a stressful leadership situation, seeks to satisfy his primary need, accomplishment of some tangible evidence of his worth, and emphasizes completing the task. Under non-stressful conditions when the low LPC leader knows the task will get done, he will seek his secondary motivational goal need, that is, good interpersonal relations, and will be concerned with subordinates' feelings and satisfactions.

In Fiedler's Model, octants I, II, and III are high, octants IV, V, and VI are moderate, and octants VII, and VIII are low, in terms of situational control.

"Traditional" schools with good leader-member relations should be highly favourable for the leader in terms of situational control, probably octant I on the continuum. The high-LPC

principal, following his secondary motivational orientation, will tend to concentrate on behaving in a task-relevant manner and seek esteem and admiration from his superiors, sometimes to the detriment of relations with immediate subordinates. He will emphasize structure, proliferate rules, stay aloof from his staff, emphasize his position power, etc., and his school will score high on the Organizational Inventory. The low-LPC principal in this same situation will follow his secondary motivational orientation and will seek better interpersonal relationships. He will be relaxed, considerate, and concerned with his subordinates' feelings and satisfactions. He will tend to de-emphasize structure by making few rules, he will be available to staff, de-emphasize his position power, etc., and his school will score low on the Organizational Inventory.

"Open" schools with good leader-member relations should be highly favourable in terms of situational control, probably octant III on the continuum. Both the high-LPC and low-LPC principals should follow their secondary motivational orientation. The high-LPC principal will tend to concentrate in a task-relevant manner and this should be reflected in a high score for his school on the Organizational Inventory. The low-LPC principal will tend to concentrate on seeking better interpersonal relationships and this should be reflected by his school obtaining a low score on the Organizational Inventory.

"Traditional" schools with poor leader-member relations are probably moderately favourable in terms of situational control, probably octant V on the continuum.

In these schools where the situation is moderately favourable, the high-LPC principal is expected to concentrate on promoting good leader-member relations, unstructure his school to some extent, and possibly reduce his position power in an attempt to shift toward octant IV where he is even more effective. Consequently his school's organizational structure will score low on the Organizational Inventory.

The low-LPC principal is expected to undertake matters to increase structure, and increase position power, and impersonality of interpersonal relations and this will be reflected by a high score on the Organizational Inventory.

"Open" schools with poor leader-member relations are unfavourable to the leader in terms of situational control and are probably octant VII on the favourability continuum.

In octant VII where the situational control is low, the high-LPC principal is expected to concentrate on good interpersonal relations but to attempt to increase rules and structure as well in an attempt to move towards a situation of moderate situational favourability. High scores on some items but low on others will have the effect of placing overall Organizational Inventory scores in the medium range.

The low-LPC principal in this situation will be task oriented and will increase rules, and impersonality of interpersonal relationships to satisfy his primary motivational goal while remaining in a low favourability situation where he operates effectively. This will be reflected in a high Organizational Inventory score for his school.

8. Statement of the Problem

If Fiedler's situational control suggestion and Funch's findings about a principal's ability to change his school's organizational structure are correct then a principal will tend to change the organizational structure of the school to make the situation more favourable to his leadership style as dictated by his personality and motivational structure. Consequently, there should be a significant relationship between Fiedler's Least Preferred Co-worker scores and the degree of bureaucratization as measured by the Organizational Inventory for certain octants in Fiedler's Contingency Model.

McNamara (1968), McKague (1968a), Fiedler (Fiedler and Chemers, 1974, p. 133), and Isherwood (1976) all agree that the principal has strong position power. McNamara (1968) and McKague (1968) claimed that the task is unstructured in schools. Fiedler (Fiedler and Chemers, 1974) feels that the task of school staff is structured. In this study, task

structure will be considered high in "traditional" schools and low in "open" schools. The criterion for judging a school "traditional" or "open" will be its score as measured by the "Description of School" questionnaire. Leader-member relations will be determined by scores on the Group Atmosphere questionnaire.

Schools with good leader-member relations as determined by Group Atmosphere questionnaire scores, and that are either "traditional" or "open" as measured by the "Description of School" will be classified as high in terms of situational control in Fiedler's Model. Similarly schools with poor leader-member relations as determined by Group Atmosphere questionnaire scores, and that are "traditional" as measured by the "Description of School" will be classified as moderate in situational control while schools with poor leader-member relations that are "open" will be classified as low in situational control in the Fiedler Model.

Stated generally, then, the problem is to examine how the relationship between leadership style and the organizational structure of the school is mediated by the situational variables.

The four main hypotheses arising from the problem are:

1. In "traditional" schools as measured by the "Description of School" (DS) with good leader-member relations as measured by the Group Atmosphere questionnaire (GA), there will be a significant positive relationship between Least Preferred Co-worker (LPC) and Organizational Inventory (OI) scores.

2. In "open" schools as measured by the DS, with good leader-member relations as measured by the GA there will be a significant positive relationship between LPC and OI scores.

3. In "traditional" schools as measured by the DS with poor leader-member relations as measured by the GA there will be a significant negative relationship between LPC and OI scores.

4. In "open" schools as measured by the DS with poor leader-member relations as measured by the GA there will be a significant negative relationship between LPC and OI scores.

CHAPTER II

METHODOLOGY

1. Sample

Initially, 25 county or district school boards in Ontario were randomly selected from both Public and Roman Catholic Separate jurisdictions. The Director of Education for each of these boards was then contacted by mail. A letter was sent briefly explaining the study, outlining the procedure, design, and the instruments to be used, and requesting permission to contact the elementary schools in that School Board's jurisdiction plus a list of their schools. The instruments included were the Least Preferred Co-worker scale (hence referred to as LPC), the Group Atmosphere questionnaire (hence referred to as the GA), the Description of School questionnaire (hence referred to as the DS), and the Organizational Inventory (hence referred to as the OI). A copy of the letter to Directors of Education is contained in Appendix 1.

From the 25 Directors contacted, permission to contact the elementary schools in their jurisdictions was obtained from 16 boards with the understanding that each school's participation in the study was strictly voluntary. Seven boards refused permission to involve their schools in the study, while another reluctantly granted permission to contact its schools,

but refused to furnish the investigator with a list of schools and addresses. One school board granted permission for the undertaking a month after all the data from the other schools had been collected, so it was not used in the study. No reply was received from one school board.

From the jurisdictions that had agreed to participate in the study all schools entailing special or unusual situations such as French immersion, twinned schools, schools with annexes, Senior Public, Junior High, or Special Learning Disability schools, were excluded. As well, for schools included in the study, all principals had been in their schools for at least a year, and all had at least five years' experience as a principal. From the available schools, 400 were randomly selected for study.

Each of the schools selected was sent one copy of the IPC, one copy of the GA, three copies of the DS, three copies of the OI, along with a covering letter and a return-addressed, stamped envelope. Principals were asked to distribute the OI and DS forms to three randomly selected teachers in the junior division, if possible, and to fill in the GA and IPC scales themselves. A copy of the covering letter is included in Appendix 3.

From the 400 schools contacted, 221 returned packages, a return of 55.3 percent. In 16 of the packages, all items on

the instruments were not completed, or only one completed copy of the DS or OI had been returned. The results of these 16 incomplete packages were discarded, leaving a total of 205 schools surveyed.

2. The Instruments

This section consists of four parts. The first part describes the Organizational Inventory. The second part describes the Least Preferred Co-worker scale. The third part describes the Group Atmosphere scale. The fourth part is a description of the Description of School questionnaire.

The Organizational Inventory

The Organizational Inventory (OI) was first constructed in 1961 by Hall (1963, pp. 32-40) to measure the six major characteristics of the Weberian concept of bureaucracy:

- I Hierarchical authority
- II Division of labour or specialization
- III Rules
- IV Procedural Specification
- V Impersonality
- VI Technical Qualifications or competence.

The original instrument was composed of 62 items. Hall tested his questionnaire using a sample consisting of 10 organizations which varied according to type, age, and size. Schools were not

included in his sample. Subjects responded to each item along a five-point scale. The corrected split-half coefficients of reliability ranged from .80 to .90. Hall claimed that the significant structure is not that which appears on the organization chart, but the actual existing structure resulting from both the formal and informal structure, and therefore justified the use of respondents' perceptions to measure the bureaucratic characteristics of the organization. After interviewing members and observing procedures of organizations having extreme scores, Hall claimed validity for all scales. Changes in the wording of items were made in 1964 by MacKay (1964a) and in 1966 by Robinson (1966).

In 1967 a considerable amount of work was done by Punch (1967) to improve this instrument. Using factor analysis, he showed that the OI measures two factors. The major factor, termed "bureaucratization" consists of Weberian scales I, III, IV, and V and accounts for 81% of common variance. The other factor, consisting of scales II and VI, which probably measures "professionalism" was considered small enough to be discounted.

Punch calculated reliability coefficients by the Spearman-Brown split-half method. His results are shown in Table 1.

Table 1
Split-half reliabilities
of Organizational Inventory scales*

Scale number	Reliability coefficients	No. of items
I	.83	10
II	.24	7
III	.59	8
IV	.64	8
V	.56	8
VI	.71	7

*Punch, Keith Francis, Bureaucratic Structure in Schools and Its Relationship to Leader Behaviour: An Empirical Study, unpublished doctoral thesis presented to the (Ontario Institute for Studies in Education) University of Toronto, 1967, p. 96.

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Punch concluded that for all scales except II reliability seems acceptable, considering that reliability is a function of test length.

Gosine (1970) used the 34-item form of the OI which measures Weberian scales I, III, IV, and V in her study. The test-retest reliability coefficients of the four scales were computed by the Pearson product-moment method with the following results:

scale I = .77, scale III = .79,
scale IV = .77, and scale V = .62.

Combined scale coefficient was computed as .83.

To date, the 34-item form of the OI as designed by Punch represents the most systematic and useful instrument used to measure the degree of bureaucratization of organizations. It has demonstrated its usefulness as a research instrument.

The Least Preferred Co-worker Scale

The Least Preferred Co-worker (LPC) score is obtained by asking the leader to think of all the individuals with whom he has ever worked. He then describes the person whom he considers to be his least preferred co-worker on a number of personality attributes. This description is made on a 16-item, eight-point bipolar adjective checklist. The LPC score is obtained by simply summing the item scores on the scale sheet. A person with a high LPC score tends to see even a poor

co-worker in a relatively favourable manner. A low LPC person perceives his least preferred co-worker in a highly unfavourable, rejecting manner. LPC scores have a high internal consistency, with split-half coefficients of over .90. The scores are reasonably stable over time, at least as stable as other attitude measures (Fiedler, 1964, p. 155). Gruenfeld et al. (1969) reported a test-retest coefficient of .85 ($n = 126$) over a five-week period. McNamara obtained a test-retest co-efficient of .45 ($n = 32$) for elementary principals over a period of 18 months (McNamara, 1968, p. 195).

The Group Atmosphere Scale

The Group Atmosphere scale (GA) was used to measure principal-teacher relations. The Group Atmosphere scale was devised by Fiedler to test the degree to which a leader feels accepted by the group. The instrument, modeled after the Least Preferred Co-worker scale, consists of 10 bipolar adjective items which are highly intercorrelated (Fiedler, 1967, p. 32). Each of the items is scored by assigning a value ranging from eight at the positive end to one at the negative end. The GA score is calculated by summing the item scores, indicating the leader's perception of his acceptance by the group.

The internal consistency of Group Atmosphere scores seems high. Fiedler (1967) reported intercorrelations of scores among three sessions with Belgian naval leaders of

.76, .73, and .83. Corrected split-half reliability of the scale was .90. McNamara (1968) reported a test-retest coefficient of .42 ($n = 31$) for elementary principals over a period of 1½ years.

Description of School Questionnaire

The Description of School questionnaire (DS) was designed to differentiate between "open" and "traditional" schools. In his extensive review of the literature concerning open education MacKillican (1975) described open education as a complex construct that is a flexible mixture of child-centered, teacher-centered, and materials-centered approaches. He identified diversification, humaneness, activity, experience, and quality as some of the key elements.

Walberg and Thomas (1971) identified eight major dimensions of open education:

1. Provisioning for learning - flexibility in organization of instruction and materials
2. Diagnosis - emphasis on child's development rather than examination scores
3. Instruction - more individual attention and choice
4. Evaluation - individual standards emphasized. Record-keeping evaluates pupil growth rather than correctness.
5. Humaneness - respect for children, openness, warmth
6. Opportunities to promote growth - use of community, colleagues, and advisors

7. Assumptions - children's innate curiosity and ability to make decisions

8. Self-perception of the teacher - resource for helping children rather than disseminator of body of knowledge.

Traub et al. (1972) attempted to describe open education and define the terms used by the authors. They developed an instrument for measuring openness of a school program which, through several prototypes, ended up as the Dimensions of Schooling Form III, (DISC III). This is a fairly massive, 32-page inventory that uses a complicated weighted scale for scoring. Because it is unwieldy and time consuming to administer, it has found relative disfavour in the eyes of those who have attempted to use it (Traub et al., 1972, p. 81).

The Description of School questionnaire was designed by Faulkner (1977) as an instrument that would differentiate between "open" and "traditional" schools without being unwieldy and time consuming to administer. It incorporates the sections of the DISC III that conform to Walberg and Thomas' (1971) eight dimensions of open education. Basically, it consists of a short, 12-item questionnaire with three to five multiple choice responses for each item. It is scored by summing the scores of item responses with possible scores ranging from a low of 12 to a high of 47. Faulkner (1977) reported a somewhat bimodal distribution of scores in the 29 schools he studied and used a score of 30.5 as the cut-off point to differentiate

between "traditional" and "open" schools. In this study it was scored by summing the doubled scores of item responses. Doubling the scores allows an item to be counted without involving the use of fractional numbers if a subject has clearly indicated a response that falls between categories of item choices given. Therefore, possible scores range was increased from 24 to 94 and the cut-off point was doubled from 30.5 to 61.0.

Because the Description of School is based on Walberg's and Thomas' (1971) eight dimensions of open education, it has content validity. Faulkner (1977) also reported that when 10 schools were rated by their Superintendent of Schools on degree of openness, their scores when compared to DS scores gave a Pearson correlation of .886 which is significant at the 95% Confidence Level (Glass and Stanley, 1970, p. 536). The scores seem reasonably stable over time. A test-retest procedure was conducted for 14 teachers in five schools over an 8-week period. The data are listed in Table 2.

Table 2

Test-retest scores
for the Description of School Questionnaire

Subject	Test I score	Test II score
1	66	66
2	62	52
3	61	62
4	60	62
5	60	62
6	58	58
7	56	58
8	56	58
9	56	52
10	55	62
11	52	52
12	50	52
13	50	48
14	44	44

The test-retest reliability coefficient was computed by the Pearson product-moment method and yielded a value of .792 ($n = 14$) over the 8-week period.

3. Limitations and Delimitations

A - Limitations

The limitations of this study can be categorized into four main areas. Each of the four instruments used is subject to limits of reliability and validity. Each of the four variables measured is limited in scope. The Least Preferred Co-worker score is but one aspect of a principal's personality. The Group Atmosphere score is not all-encompassing in describing leader-member relations. Similarly, Organizational Inventory and Description of School scores do not reflect all aspects of the school setting. The data were collected by a mail survey, and not all the schools that were contacted replied. The data were generated by the subjective observations of untrained personnel.

B - Delimitations

The data were collected from 205 schools in 16 school board jurisdictions. Both schools and school boards were randomly selected, and represent a cross-section of both Public and Separate elementary schools in all regions of Ontario. Data were requested from the Junior Division in schools with experienced principals who had been in their schools for at least

two years. All schools with special circumstances such as French Immersion schools, Intermediate schools, twinned schools, schools with annexes or Special Learning Disability schools, were excluded.

4. Description of the Data

The 10 items of the GA were scored on an eight-point scale. The GA for the school was obtained by summing the scores on the 10 items. Scores on the GA ranged from 40 to 80 with a mean of 68.3. The suggested median score of 65 from reported normative data (Posthuma, 1970, p. 12) was used as the cut-off point to differentiate between schools having good or poor leader-member relations. All schools scoring 66 or above were considered to have high GA or good leader-member relations. Schools scoring 65 or below were considered to have low GA or poor leader-member relations.

The 12 items on the DS questionnaire were scored by summing the doubled scores of item responses. Doubling the scores allowed an item to be counted without involving the use of fractional numbers if a subject had clearly indicated a response that fell between the suggested categories. The DS score for each school was obtained by calculating the mean score of the teachers that responded to the questionnaire in that school. If at least two of the teachers responded the school's results were used. If only one teacher in a school

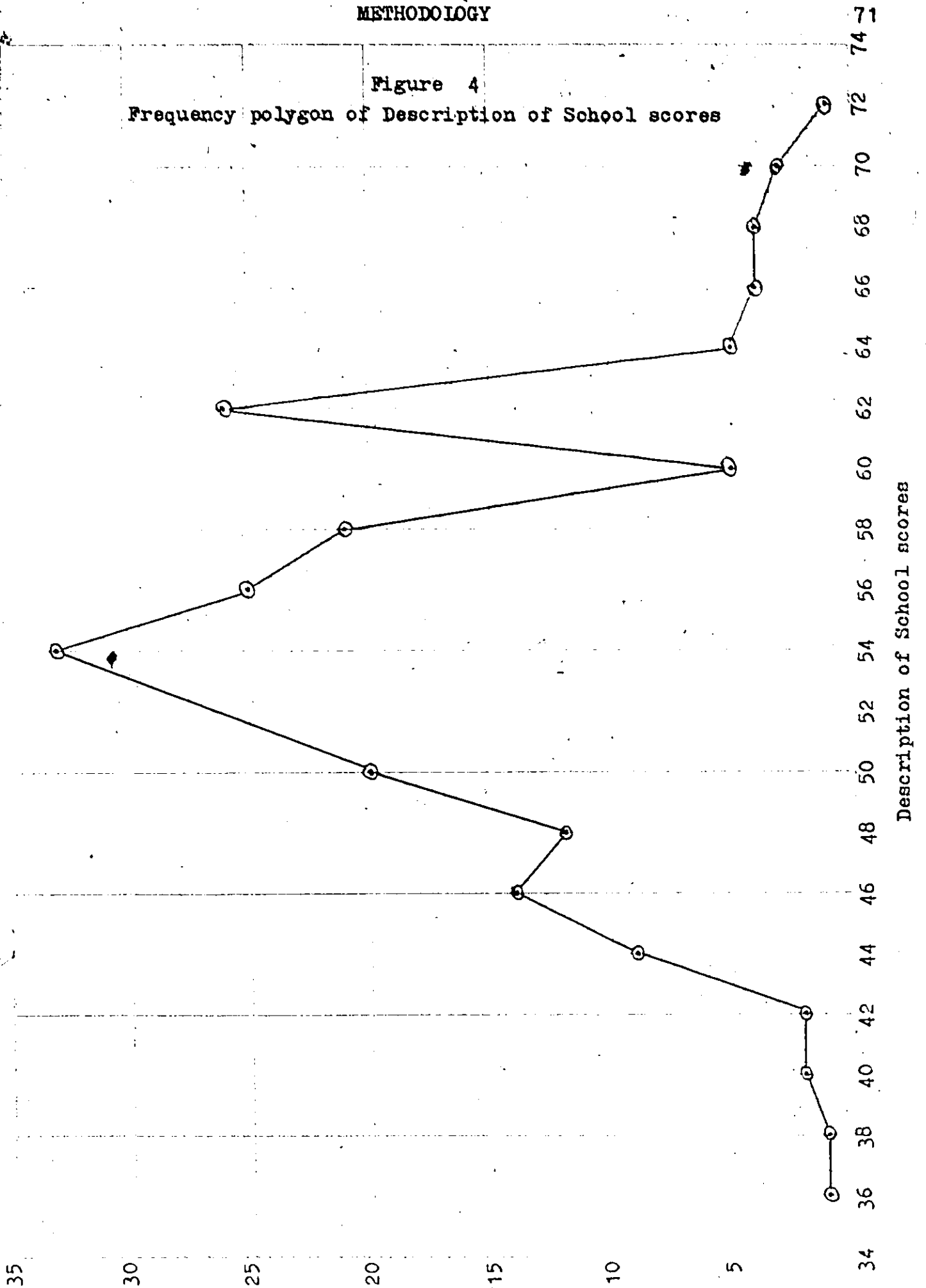
responded to the questionnaire, then that school's results were discarded. The means of DS scores (or school scores) ranged from 35.0 to 72.0 with a mean for all schools of 53.6. From the distribution of scores (Figure 4) 61.0 was taken as the cut-off point for "open" schools. All schools with DS scores of 61.0 or higher were considered "open" while those with DS scores of 58.0 or lower were considered "traditional". Scores of between 58.0 and 61.0 were not used in the study.

Schools were classified as Type I, II, III, or IV schools in terms of their GA and DS scores. Schools with GA scores of 66 or higher, and DS scores of 61.0 or higher, that is "open" schools with good leader-member relations, were classified as Type I. These schools, which probably correspond to octant III on the Contingency Model continuum, offered the principal high situational control. Schools with GS scores of 66 or higher and DS scores of 58.0 or lower, that is "traditional" schools with good leader-member relations, were classified as Type II. These schools, which are about octant I of the continuum, offered the principal high situational control. Schools with GA scores of 65 or lower, and DS scores of 58.0 or lower, that is "traditional" schools with poor leader-member relations, were classified as Type III. These schools, which probably correspond to octant V on the favourability continuum, offered the principal moderate situational control. Similarly, schools with GA scores of 65 or lower,

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Figure 4

Frequency polygon of Description of School scores



and DS scores of 61.0 or higher, that is "open" schools with poor leader-member relations, were classified as Type IV. These schools, which probably correspond to octant VII of the Contingency Model favourability continuum, offered the principal low situational control.

Twenty-four of the 34 items of the OI were scored by a 5-point scale decreasing A to E. The other 10 items were scored on a 5-point scale in the opposite direction. The bureaucracy score for each teacher was the sum of all responses to the OI items. The bureaucracy score for a school was obtained by calculating the mean score of the respondents within the school. If only one teacher responded in a school, the data from the school were considered incomplete, and not used in the study. The use of the mean score is legitimate because the OI has been justified as an objective measure of bureaucracy (Hall, 1963, pp. 32-40). OI scores for schools ranged from 61.0 to 123.7 with a mean of 92.5.

The 16 items of the LPC were scored one to eight. Each principal's LPC score was calculated by summing the scores on the 16 items. Scores on the LPC ranged from 23 to 128 with a mean of 62.2. Principals who obtained LPC scores of 64 or above were considered high LPC leaders while those who obtained LPC scores of 57 or below were considered low LPC leaders. Principals who obtained LPC scores of between 58 and 63 were considered borderline (Fiedler et al., 1976, p. 22) or neither high nor low LPC leaders, and were not used in the study.

All LPC and OI scores used for each type of school are given in Appendix 7.

5. Plan of the Statistical Analysis

1. A one-way analysis of variance was computed for the mean Description of School scores of "traditional" and "open" schools in each of the four types of schools being studied and the appropriate post hoc procedures were carried out on the results. (This ensures that schools are significantly different in degree of openness.)

2. Correlation coefficients between LPC and OI scores were calculated for each school type.

CHAPTER III

RESULTS

1. Statistical Analysis

In this chapter, the four hypotheses are tested. The degrees of association are assessed through the use of the Spearman Rank Order correlation method. These tests are preceded by a test of the difference between the mean scores of "traditional" and "open" schools on the Description of School scale. This preliminary test is to ensure that the two types of schools are indeed different.

The means and standard deviations of Description of School scores for all four types of schools are given in Table 3. The results of a one-way analysis of variance are given in Table 4. As can be seen from Table 4, the four types of schools do differ significantly in respect to Description of School scores.

Appropriate post hoc procedures were carried out on the data using the Scheffé Method of Multiple Comparisons technique because the four samples were of different size. The results are listed in Table 5. These results indicate that in all comparisons except Type I to Type IV and Type II to Type III there is a significant difference in means of Description of School scores. No significant difference in

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DS scores is indicated for Type I and IV schools or for Type II and III schools. Thus the schools classed as "open" do indeed differ significantly from the schools classed as "traditional" in respect to scores on the Description of School scale.

Table 3

Means and standard deviations
of Description of School scores

School type	Mean	Standard deviation
I	62.86	2.34
II	51.65	4.80
III	51.83	4.35
IV	62.74	2.05

I = open, good GA (Octant III)

II = traditional, good GA (Octant I)

III = traditional, poor GA (Octant V)

IV = open, poor GA (Octant VII)

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Table 4

One-way analysis of variance
of DS scores

Source of variation	Sums of squares	Degrees of freedom	Variance estimate
Between	3625	3	1208.4
Within	3578	191	18.73
Total	7202	194	-

Value of $F = 64.537^*$

$F \text{ crit.} = 3.63 \quad p < .01$

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Table 5

Comparisons of Description of School scores
for the four types of schools

Scheffé method of multiple
comparisons

Contrast		Lower limit	Upper limit
Mean I	- Mean II	-14.3	-8.1
Mean I	- Mean III	7.6	14.4
Mean I	- Mean IV	-5.2	5.4*
Mean II	- Mean III	-2.6	2.2*
Mean II	- Mean IV	-15.8	-6.4
Mean III	- Mean IV	-15.9	-5.9

Hypothesis 1

In "traditional" schools as measured by the Description of School (DS) with good leader-member relations as measured by the Group Atmosphere questionnaire (GA) there will be a significant positive relationship between Least Preferred Co-worker (LPC) and Organizational Inventory (OI) scores.

A Spearman Rank Order correlation of -0.828 was obtained which is significant at the 95% Confidence Level but in the opposite direction to that predicted. The hypothesis was not supported.

Hypothesis 2

In "open" schools as measured by the DS with good leader-member relations as measured by the GA there will be a significant positive relationship between LPC and OI scores.

A Spearman Rank Order correlation of 0.705 was obtained which is significant at the 95% Confidence Level. Therefore the hypothesis was supported.

Hypothesis 3

In "traditional" schools as measured by the DS with poor leader-member relations as measured by the GA there will be a significant negative relationship between LPC and OI scores.

A Spearman Rank Order correlation of -0.592 was obtained which is significant at the 95% Confidence Level. The hypothesis was supported.

Hypothesis 4

In "open" schools as measured by the DS with poor leader-member relations as measured by the GA there will be a significant negative relationship between LPC and OI scores.

A Spearman Rank Order correlation of -0.750 was obtained which is significant at the 95% Confidence Level. The hypothesis was supported.

All results are listed in Table 6. Note that while all correlations are significant at the 95% Confidence Level the correlation for Hypothesis 1 is in the opposite direction to that predicted.

Table 6

Relationship between LPC and OI scores

School type	Spearman Rank Order correlation	N
I	0.705 *	21
II	-0.828 *	81
III	-0.592 *	45
IV	-0.750 *	9

* $p < .05$

I = open, good GA (Octant III)

II = traditional, good GA (Octant I)

III = traditional, poor GA (Octant V)

IV = open, poor GA (Octant VII)

2. Discussion of Results

Three of the hypotheses were supported. The other hypothesis was not supported. Calculated correlations between LPC and OI scores for schools of Types I, III, and IV as predicted by Fiedler's Contingency Model, were significant, and in the predicted direction. The calculated correlation between LPC and OI scores for Type II schools was significant, but in the opposite direction to that predicted, which is most interesting.

In "traditional" schools with either good or poor leader-member relations, those with low-LPC leaders tended to be structured more bureaucratically in terms of Hall's fundamental characteristics (Hall, 1963, p. 33) than did those with high-LPC leaders. There tended to be a better defined hierarchy of authority, more rules covering teachers' rights and duties, more specified procedures for dealing with routine situations, and more impersonality of interpersonal relations in "traditional" schools that were run by low-LPC principals than in those run by high-LPC principals.

In "open" schools with good leader-member relations the reverse was true, with schools with high-LPC principals tending to be more bureaucratically organized, in Hall's terms, than those having low-LPC principals.

In "open" schools with poor leader-member relations the relationship between type of leader and degree of

bureaucratization differed from that of "open" schools with good leader-member relations and followed the pattern of "traditional" schools. Those with low-LPC leaders tended to be structured more bureaucratically in Hall's fundamental characteristics than did those with high-LPC leaders.

The results for Type I, III, and IV schools can be accounted for in terms of Fiedler's Contingency Model of Leadership Effectiveness. The results for Type II schools are exactly opposite to that predicted by the Fiedler Model and will be considered later. The results for Type I, III, and IV schools will be considered first.

In "open" schools with good leader-member relations the principal's situational control is high (Fiedler et al., 1976, p. 91).

In this Type I school the high-LPC principal according to Fiedler (1974, p. 91) will seek to satisfy his secondary motivational goal needs. He will seek the esteem and admiration of his superiors by behaving in a task-relevant manner, sometimes to the detriment of relations with his teachers. In effect, he will tend to reduce his situational control to a state of moderate favourability where he is more effective. He will tend to have a closed-door policy, be relatively impersonal and aloof to his teachers, and standardize procedures as much as possible. The Organizational Inventory scores for the school should be high.

In the same situation, the low-LPC principal with good situational control will be seeking to satisfy his secondary motivational goal needs. In this high control situation, knowing that the task will get done, he will seek good interpersonal relations, and will be concerned with his teachers' feelings and satisfactions. He will tend to be warm and friendly to his staff, keep an open-door policy, maintain an informal atmosphere around the school and seem generally concerned about them personally. There will be a minimum of school rules and standardized operating procedures. The school's Organizational Inventory score will be low.

The fact that the second hypothesis was supported agreed with this rationale.

In a "traditional" school with poor leader-member relations the principal would view his job as stressful. In terms of situational control (Fiedler et al., 1976, p. 91) the situation is moderately favourable. The high-LPC principal will be expected to seek to achieve his primary motivational goal needs as outlined by Fiedler (1974, pp. 65-66). He will tend to concentrate on promoting good leader-member relations by being warm and friendly to his teachers, unstructure his school to some extent, and possibly give up some of his position power by having few rules and standardized operating procedures in an attempt to shift his school toward octant IV where he is even more effective as a leader. This will be reflected in

terms of a low Organizational Inventory score for the school.

On the other hand, the low-LPC principal will tend to achieve his primary motivational goal needs and will be task oriented. He will increase his position power by introducing more rules and regulations. He will tend to operate under a closed-door policy characterized by coldness, aloofness, and general impersonality of relations with his teachers. He will in fact actually try to make the situation less favourable in terms of situational control since he is more effective under conditions of low situational control than moderate situational control. This will be reflected in terms of a high Organizational Inventory score for the school.

The fact that the third hypothesis was supported agreed with this rationale.

In a Type IV school, the principal is in a position of low situational control and principals will be expected to revert to seeking their primary motivational needs goals, with the high-LPC principals motivated to seek good interpersonal relations and the low-LPC principals motivated to achieve task success.

In this type of school, situational control is low so the high-LPC principal will attempt to move towards a situation of moderate situational control where he is more effective. He will tend to operate under an open-door policy, to be warm and friendly to his teachers but to increase rules and standardization of procedures as well. The school's Organizational

Inventory scores will be relatively low.

On the other hand, the low-LPC principal is effective in a situation of low situational control and he will attempt to remain in that state. He will be task-oriented in his primary motivational goal needs and will increase rules and standardize operating procedures as much as possible. He will have few personal contacts with his staff, will be viewed as cold and aloof by his teachers and will not really care how he is seen by his subordinates. The school's Organizational Inventory score will be high.

Again, the fact that hypothesis number four was supported agreed with this rationale.

As mentioned earlier, the calculated correlation between LPC and OI scores for Type II schools was significant, but in the opposite direction to that predicted by Fiedler's theory. When results obtained are exactly opposite to that suggested by a major theorist and statistically significant as well, they warrant scrutiny and reflection.

It would be expected that in Type II schools which correspond to octant I of Fiedler's Model, and where the situation variables offer the principal high situational control, in fact the highest degree of situational control incorporated into the Model, that he would seek to satisfy his secondary motivational goal needs in accordance with Fiedler's theory. The high-LPC principal, according to Fiedler (1974, p. 66),

will tend to concentrate on behaving in a task-relevant manner and seek the esteem and admiration of superiors, sometimes to the detriment of relations with immediate subordinates. He will tend to have a closed-door policy, be relatively impersonal and aloof to his teachers, and standardize procedures as much as possible. The Organizational Inventory scores for the school should be high.

In the same situation, the low-LPC principal with good situational control will be seeking to satisfy his secondary motivational goal needs by seeking good interpersonal relations and will be concerned with his subordinates' feelings and satisfactions (Fiedler, 1974, pp. 66-67). He will tend to be warm and friendly to his staff, keep an open-door policy, share his position power with them, maintain an informal atmosphere around the school and have a minimum of school rules and procedures. The school's Organizational Inventory score will be low. Thus the theory would predict a significant positive correlation between LPC and OI scores. In actuality, the results show a statistically significant negative correlation between these two scores.

If principals in Type II schools were seeking to satisfy their primary motivational orientation, the high-LPC principals would tend to seek good interpersonal relations and the low-LPC principals would tend to achieve task success. This would be reflected by a significant negative correlation between LPC and

OI scores.

According to Fiedler's theory, the perceived stressfulness of the situation resulting from the degree of situational control afforded the leader is the mechanism that determines leader behaviour in terms of primary or secondary motivational orientation (Fiedler and Chemers, 1974, pp. 99-103) (Fiedler, 1974, pp. 65-67). The four hypotheses tested were generated on this basis and all of the hypotheses except the one concerning Type II schools were supported. In the Type II schools, the principals displayed behaviour attributable to primary motivational orientation rather than the secondary motivational orientation expected because of the situational factors.

One possible explanation for this unexpected behaviour is the influence of outside factors not considered in Fiedler's Contingency Model.

Fiedler's three contingency factors, leader-member relations, task structure, and leader position power, should afford high situational control and hence relatively low stress to both Type I and Type II school principals. Outside factors might alter the perceived stressfulness, however.

Negative public opinion in terms of schools has become more prevalent in recent years and pressures of "accountability", "management by results", and "back to the basics" movements have added additional stress to an elementary school principal's role. Limited school budgets brought about by the Provincial

Government's spending ceilings have given elementary principals more difficulties in arbitrating teacher and upper administration demands and views. The effects of declining enrolments add stress. So does inflation. In fact, in his final report on Declining School Enrolments Jackson says, "Most of what appears to be problems of accommodating to enrolment changes, turn out to be the problems of managing our school system under inflationary conditions" (Ciprietti, 1979, p. 1).

In "open" schools the principal's role is less stressful than in a "traditional" school because of the mode of operation of an "open" school. In an "open" school, teachers are involved in planning as a team sometimes under a "cell" or "pod" chairman, or in some schools under the direction of a non-titled but emergent-leader teacher. Many of the minor problem-solving duties, and tasks of initiating change, rule making, etc. are removed from the principal's area of responsibility. Noise levels, pupil movement, and pupil activity that would require principal action or bring community criticism to bear on the principal of a "traditional" school tend to be regarded to some extent as a consequence of open education in an "open" school, and this removes more weight from the principal's burden. In short, for the principal of an "open" school with good leader-member relations, the situation is more secure and less stressful than for the principal of a "traditional" school. Thus, while principals of Type I schools displayed their secondary motivational

orientation, the principals of Type II schools because of perceived stressfulness caused by outside factors, displayed their primary motivational orientation. This would explain the results obtained in this study.

If this explanation were to be accepted, then the stress emanating from outside the school would seem to have a more potent impact on leader behaviour than the internal organizational factors suggested by Fiedler's Contingency Model. Other research findings offer support for this possibility. Hunt (1967, pp. 290-308) found that Group Atmosphere alone accounted for almost as much variance as did the interaction of the variables implied by the Model. Hunt surmised that in some cases, a simpler model could be used or that variables other than those suggested by Fiedler could be utilized, depending upon the type of organization being studied. He also suggested that some organizations may not fit the Model on an "all or nothing" basis, and that further research using other variables in the Model would be useful.

Hill (1969, pp. 513-517) also raised the possibility that special conditions may warrant the use of different factors in determining the favourability dimension.

Sample and Wilson's study (1965, pp. 266-270) showed that both high-LPC and low-LPC leaders were friendly to group members but at different times during the task. It was not the occurrence of positive behaviour which distinguished the

two types of leaders but the timing of this behaviour.

Graham (1968, pp. 457-464) in agreement with Sample's and Wilson's (1965) results suggested that LPC scores may reflect the conditions under which a leader will engage in human relations or task behaviour rather than the amount of frequency of occurrence of such behaviours.

Miklos (1963, pp. 5-8) concluded that a school principal has his behaviour shaped, to a large degree, by the expectations of him held by his teachers, his superintendent, the parents in that particular community, and by his colleagues.

The results of these studies would thus seem to lend support for the suggestion that the stress emanating from outside factors may influence leader behaviour in a given school situation more than the internal organizational factors of Fiedler's Model.

In any event, if the principal's role in "open" schools with good leader-member relations is deemed to be less stressful than in "traditional" schools or "open" schools with poor leader-member relations, then the results of this study can be explained in terms of Fiedler's Model.

As stated earlier, only two studies relating bureaucracy and leadership behaviour have been located in the literature. Punch (1967) used the Leader Behaviour Description Questionnaire and the refined Organizational Inventory to study this relationship. He found a negative correlation between leadership behaviour in terms of relationship-orientation or

RESULTS

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task-orientation and bureaucracy in school organization. At the time his data were being collected, the schools he studied would be classed as "traditional". As such, his findings are in accord with the results of this study.

McKague (1968a) studied the relationship between leadership style and school bureaucratization to the extent that the subtests of the Organizational Climate Description Questionnaire, namely Hindrance, Esprit, Intimacy, and Disengagement, are measures of school bureaucracy. The schools he studied were high schools, and were all quite "traditional" in the terms used in this study. McKague considered them to be in octant III of the Fiedler Model. In light of the fact that they were "traditional" schools, they would be considered as being in octant I in terms of this study. McKague's findings are in accord with the results of this study for "traditional" schools.

The results indicate that different style leaders use different ways of attempting to modify the situation under different circumstances. In this study no attempt was made at measuring the stressfulness of the situations involved. Furthermore, it was assumed that all the principals studied indeed met at least the minimum criteria of effectiveness and no attempt was made at rating their effectiveness. It would be interesting and useful to investigate the effects of the stressfulness of the situation and individual principal effectiveness in terms of how each type of leader behaves in all possible school situations.

The results indicate that Fiedler's Model which has been developing from the early 1950s to its present final form of 1976 (Fiedler et al., 1976, pp. v-219) is useful in predicting principal behaviour in different school situations. It is also evident that the earlier interpretations of the Least Preferred Co-worker score as an index of relationship or task-orientation on the part of the leader could not adequately explain the results obtained in this study. Perhaps the earlier studies that were conducted in schools would yield more insights into principal behaviour if the data and results of these studies were re-examined in the light of Fiedler's latest interpretation of his Contingency Model in general and LPC scores in particular. The Contingency Model could have very practical value in the school situation both in principal selection and principal training programs.

Although Anderson (1971a, 1971b) has shown that highly bureaucratized schools are less effective in general than those less highly bureaucratized, he did not distinguish between existing task structure and philosophical outlook of the various schools. The concept of bureaucratization as organizational structuring may be very useful in distribution of power at the principal level. The results of this study indicate that the organizational structure of the school reflects the principal's attempts at changing the situational control to make the situation more favourable for his particular leadership style.

Leadership training programs along the line of Fiedler's Leader Match (Fiedler et al., 1976, pp. v-219) could help school principals increase their effectiveness in changing their situational control and in turn could increase their effectiveness as principals.

In principal selection and placement, Fiedler's theory would seem to be useful in more properly assigning principals to a school situation in which they would be most likely to perform well. It would seem to be a logical alternative to the present practice of selecting, promoting, or transferring someone on the basis of past performance in an altogether different situation.

Recommendations for Further Research

The relationship between LPC scores and school organizational structure should be studied over the full range of possible octants in Fiedler's Model with the stressfulness of the situation as perceived by the principal taken into account, and with the individual principal's effectiveness as a principal measured. Other variables that should be considered in further tests of the Model in light of Fiedler's latest interpretation are experience of the principal, and more precisely measured leader-member relations. Such studies could lead to even better application of organizational engineering techniques to principal training programs, and to principal selection for a particular school assignment.

CONCLUSIONS

Three of the four hypotheses were supported. Calculated correlations between LPC and OI scores were significant and in the predicted direction. The first hypothesis was not supported. While the calculated correlation between LPC and OI scores was statistically significant, it was in the opposite direction to that predicted.

If "open" schools with good leader-member relations are considered less stressful situations than "traditional" schools or "open" schools with poor leader-member relations, and Fiedler's explanation of leader behaviour in terms of needs satisfaction of primary and secondary goals for two different motivational systems under stressful and non-stressful conditions as perceived by the leader is taken into account, then the results are explainable in terms of Fiedler's Contingency Model.

In "traditional" schools with either good or poor leader-member relations, low-LPC principals tended to structure internal organization more bureaucratically than did high-LPC principals. In "open" schools with good leader-member relations, high-LPC principals tended to structure internal organization more bureaucratically than did low-LPC principals. In "open" schools with poor leader-member relations the reverse was true with the low-LPC principals tending to organize their schools more bureaucratically than the high-LPC principals did.

CONCLUSIONS

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Many of the organizational engineering schemes fail to recognize, as Fiedler does, factors outside the organization itself. This weakness reduces their usefulness since some organizations, such as school systems, do not operate in a vacuum, free from outside influences. For instance, the findings of this study seem to indicate that environmental or outside factors may be important contingencies for leader effectiveness in that they may impose or alter situation stressfulness.

These findings could have practical applications in both principal training programs, based on the organizational engineering concept, and in principal selection for a particular school situation.

This study indicates that more study in this area would be warranted. Better understanding of the relationship between LPC scores and school organization, with the factors of situation stressfulness, experience of the principal, more precisely measured leader-member relations, and principal effectiveness taken into account, could lead to even better application of the organizational engineering technique and to more careful principal selection for a particular school assignment.



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APPENDIX 1

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Sample letter sent to Directors of Education.

890 Beatrice Crescent
Sudbury, Ontario
P3A 3E5
1978-09-13

Dear

I am an elementary school principal with the Sudbury Board of Education presently working as well on my thesis to complete the requirements for a Ph.D. degree from the University of Ottawa. I am requesting your permission and aid in collecting data from some of your elementary schools. Perhaps a brief outline of my thesis, the data I require, and my testing instruments, is in order.

My topic is "The Leadership Style of the Principal Related to Degree of Bureaucratization of School". Basically, my study is an application of Fiedler's Contingency Model of Leadership Effectiveness.

In Fiedler's Model, leaders of different styles as measured by the Least Preferred Co-worker scale are more effective or less effective as leaders depending upon the favourability of the situation for the leader as determined by the particular combination of three factors, group atmosphere, task structure, and leader position power. This model is a powerful and useful one that has been used in literally hundreds of studies by Fiedler himself, and many others.

My contention is that principals change their internal school organization to make the situation favourable to their personalities. School organization is dependent upon the principal's style, as determined by Fiedler's Least Preferred Co-worker scale, and the situational favourability, in Fiedler's terms. This should be reflected in a comparison of leader style and school organization.

A recently completed pilot study of my thesis using data from the Sudbury Board of Education and the Sudbury Roman Catholic Separate School Board schools supports my contention.

This study could have some practical application. Some of its possible outcomes could be better training programs for principals, and better criteria for principal selection and placement.

Enclosed are copies of the instruments that will be used in my study. The school principal would complete the Least Preferred Co-worker and Group Atmosphere scales. Three teachers would complete the Organizational Inventory and Description of School surveys. Completing these instruments is not very time consuming. It would require seven to ten minutes of the principal's time and twelve to fifteen minutes of the teacher's time. Naturally, all data collected is strictly confidential. Since the survey will involve some 250 schools from twenty-five School Boards, and since all data will be pooled, and all schools are anonymous, comparisons between individual schools and/or principals is not intended and, in reality, not possible.

What I am requesting then are two things; firstly, your permission to collect data from some schools in your jurisdiction provided they are willing to cooperate with me, and secondly, a list of elementary schools and addresses including the name of the school principal. I hope to collect the data in late October or early November.

Your consideration of my requests would be appreciated.

Yours truly,

RTBF/BF

R. T. B. Faulkner

Enc

LIST OF SCHOOL BOARDS
GRANTING PERMISSION TO CONTACT THEIR PRINCIPALS

1. Carleton Board of Education
133 Greenbank Road
Ottawa, Ontario K2H 6L3
2. Dryden Board of Education
Box 3000
Dryden, Ontario P8N 2H4
3. Frontenac County Board of Education
Postal Bag 610
Kingston, Ontario K7L 4X4
4. Board of Education for the City of Hamilton
Box 558
Hamilton, Ontario L8N 3L1
5. Lambton County Board of Education
200 Wellington Street
Sarnia, Ontario N7T 7L2
6. Lincoln County Board of Education
112 Oakdale Avenue
St. Catharines, Ontario L2P 3J9
7. Board of Education for the City of London
Box 5873, Terminal A
London, Ontario N6A 4T5
8. Nipissing Board of Education
Box 3110
North Bay, Ontario P1E 8H1
9. Nipissing District R.C.S.S. Board
1140 Front Street
North Bay, Ontario P1E 6P2
10. Ottawa Board of Education
330 Gilmour Street
Ottawa, Ontario K2P 0P9
11. Sault Ste. Marie Board of Education
644 Albert Street East
Sault Ste. Marie, Ontario P6A 2K7

12. Sault Ste. Marie District R.C.S.S. Board
169 Spring Street
Sault Ste. Marie, Ontario P6A 3A4
13. Stormont, Dundas and Glengarry County R.C.S.S. Board
1104 First Street East
Cornwall, Ontario K6H 5S8
14. Waterloo County Board of Education
Box 68
Kitchener, Ontario N2G 3X5
15. Wentworth County Board of Education
1039 Upper James Street
Hamilton, Ontario L9C 3A7
16. Board of Education for the City of Windsor
Box 210
Windsor, Ontario N9A 6K1

SAMPLE LETTER TO PRINCIPALS (INCLUDING
'EXPERIENCE SURVEY')

890 Beatrice Crescent
Sudbury, Ontario
F3A 3E5
1978-10-25

Dear

I am an elementary school principal with the Sudbury Board of Education presently working as well on my thesis to complete the requirements for a Ph.D. degree from the University of Ottawa. Being an elementary school principal like yourself, I know how busy you are, but I am asking for your help in collecting data. Helping me won't take very much of your time or your teachers' time as you will see.

My topic is "The Leadership Style of the Principal Related to Degree of Bureaucratization of School". Basically, my study is an application of Fiedler's Contingency Model of Leadership Effectiveness.

In Fiedler's Model, leaders of different styles as measured by the Least Preferred Co-Worker scale are more effective or less effective as leaders depending upon the favourability of the situation for the leader as determined by the particular combination of three factors, group atmosphere, task structure, and leader position power. This model is a powerful and useful one that has been used in literally hundreds of studies by Fiedler himself, and many others.

My contention is that principals change their internal school organization to make the situation favourable to their personalities. School organization is dependent upon the principal's style, as determined by Fiedler's Least Preferred Co-Worker scale, and the situational favourability, in Fiedler's terms. This should be reflected in a comparison of leader style and school organization.

A recently completed pilot study of my thesis using data from the Sudbury Board of Education and the Sudbury Roman Catholic Separate School Board schools supports my contention.

This study could have some practical application. Some of its possible outcomes could be better training programs for principals, and better criteria for principal selection and placement.

Enclosed are copies of the "Least Preferred Co-Worker" and "Group Atmosphere" scales, three copies of the "Organizational Inventory" and "Description of School" surveys, and a stamped, self-addressed envelope for you to return the completed forms to me. I would ask you, please, to complete the "Least Preferred Co-Worker" and "Group Atmosphere" scales yourself. (It should take you only seven to ten minutes.) Please select three of your Junior Division teachers if possible (or Intermediate Division if it is not) and ask them to complete the "Organizational Inventory" and "Description of School" surveys. It should require only twelve to fifteen minutes of each teacher's time. If you would collect the instruments and mail them to me in the stamped, self-addressed envelope, I would be much obliged.

Naturally, all data collected is strictly confidential. Since the survey will involve some 400 schools from twenty-five School Boards, and since all data will be pooled, and all schools are anonymous, comparisons between individual schools and/or principals is not intended and, in reality, not possible.

Your Director of Education is aware of this request and has given his permission for me to contact you and ask for your help. If you do decide to help me I would request that you return the completed forms to me by November 30th so that I can process the data by computer in December.

I am sorry that I have to collect this data by mail rather than through face to face contact, but since I am heading a school on a regular basis, just like you, it is, of course, impossible.

Your consideration of my request would be appreciated.

Yours truly,

RTBF/BAF

R. T. B. Faulkner

Enc

EXPERIENCE SURVEY

Please fill in the following:

Total years of experience: 1-5 5-10 More
 than 10

Years in present school: Less More
 than 2 than 2

LEAST PREFERRED CO-WORKER

Think of the person with whom you can work least well. He may be someone you work with now, or he may be someone you knew in the past. He does not have to be the person you like least well, but should be the person with whom you had the most difficulty in getting a job done. Describe this person as he appears to you.

Pleasant	<u>8</u> : <u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Unpleasant
Friendly	<u>8</u> : <u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Unfriendly
Rejecting	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> : <u>8</u>	Accepting
Helpful	<u>8</u> : <u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Frustrating
Unenthusiastic	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> : <u>8</u>	Enthusiastic
Tense	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> : <u>8</u>	Relaxed
Distant	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> : <u>8</u>	Close
Cold	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> : <u>8</u>	Warm
Cooperative	<u>8</u> : <u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Uncooperative
Supportive	<u>8</u> : <u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Hostile
Boring	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> : <u>8</u>	Interesting
Quarrelsome	<u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> : <u>8</u>	Harmonious
Self-assured	<u>8</u> : <u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u>	Hesitant

LEAST PREFERRED CO-WORKER

Efficient 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 Inefficient

Gleamy 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 Cheerful

Open 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 Guarded

Please describe the group atmosphere of your present school by checking the following items:

- | | | |
|-----------------|---|----------------|
| 1. Friendly | : <u>8</u> : <u>7</u> : <u>6</u> : <u>5</u> : <u>4</u> : <u>3</u> : <u>2</u> : <u>1</u> : | Unfriendly |
| 2. Accepting | : ____ : ____ : ____ : ____ : ____ : ____ : ____ : ____ : | Rejecting |
| 3. Satisfying | : ____ : ____ : ____ : ____ : ____ : ____ : ____ : ____ : | Frustrating |
| 4. Enthusiastic | : ____ : ____ : ____ : ____ : ____ : ____ : ____ : ____ : | Unenthusiastic |
| 5. Productive | : ____ : ____ : ____ : ____ : ____ : ____ : ____ : ____ : | Nonproductive |
| 6. Warm | : ____ : ____ : ____ : ____ : ____ : ____ : ____ : ____ : | Cold |
| 7. Cooperative | : ____ : ____ : ____ : ____ : ____ : ____ : ____ : ____ : | Uncooperative |
| 8. Interesting | : ____ : ____ : ____ : ____ : ____ : ____ : ____ : ____ : | Boring |
| 9. Supportive | : ____ : ____ : ____ : ____ : ____ : ____ : ____ : ____ : | Hostile |
| 10. Successful | : ____ : ____ : ____ : ____ : ____ : ____ : ____ : ____ : | Unsuccessful |

ORGANIZATIONAL INVENTORY

On the following pages is a list of items that may be used to describe the way your school operates. The items describe typical conditions that occur within a school. Please indicate to what extent each of these descriptions characterizes YOUR SCHOOL. Please do NOT evaluate the items as "good" or "bad" conditions, but read each item carefully and decide how well the statement describes your school. Although some items may appear similar, they express important differences. Each item should be considered as a separate description. This is not a test of ability or consistency in answering. Its only purpose is to make it possible for you to describe this school, as accurately as possible.

It is important that your answers be "independent", so please do not discuss them with other teachers.

Please be frank in your responses with the assurance that all responses are strictly confidential.

Please respond to EVERY item.

DIRECTIONS:

- a. READ each item carefully.
- b. THINK about how well the statement describes your school.
- c. DECIDE to what extent the condition described is true in your school.
- d. DRAW a circle around one of the five letters following the item to show your answer.

A = VERY FREQUENTLY or ALWAYS true
B = OFTEN true
C = OCCASIONALLY true
D = SELDOM true
E = VERY RARELY or NEVER true

ORGANIZATIONAL INVENTORY

- | | |
|---|-----------|
| 1. I get approval for decisions I make. | A B C D E |
| 2. Rules stating when teachers arrive at and depart from the building are strictly followed. | A B C D E |
| 3. The time for informal get-togethers during the school day is strictly regulated. | A B C D E |
| 4. Red tape is a problem in getting a job done in this school. | A B C D E |
| 5. The organization sponsors staff get-togethers | A B C D E |
| 6. Staff members here do almost as they please in classroom work. | A B C D E |
| 7. Students are treated within the rules of the school, no matter how serious a problem they have. | A B C D E |
| 8. We follow strict operating procedures at all times. | A B C D E |
| 9. A person who wants to make his own decisions would quickly become discouraged in this school. | A B C D E |
| 10. Teachers in this school follow a set of rules and regulations. | A B C D E |
| 11. Going through the proper channels is important in this school. | A B C D E |
| 12. Staff meetings proceed in a friendly and informal manner. | A B C D E |
| 13. Even small matters are referred to someone higher up for a final answer. | A B C D E |
| 14. Standardized classroom methods and procedures are used by all teachers. | A B C D E |
| 15. For student behaviour problems, the school has standard punishments for standard offences, regardless of the individual involved. | A B C D E |

ORGANIZATIONAL INVENTORY

- | | | | | | | |
|-----|---|---|---|---|---|---|
| 16. | There can be little action until decisions are approved. | A | B | C | D | E |
| 17. | Teachers do not leave their classrooms unless they have permission. | A | B | C | D | E |
| 18. | Whenever we have a problem we go to the same person for an answer. | A | B | C | D | E |
| 19. | No matter how special a pupil's or parent's problem appears to be, he is treated the same way as anyone else. | A | B | C | D | E |
| 20. | Nothing is said if you get to school just before roll call or leave right after dismissal occasionally. | A | B | C | D | E |
| 21. | Relationships among staff members are formal and impersonal. | A | B | C | D | E |
| 22. | No one can get necessary supplies without permission from the principal or vice-principal. | A | B | C | D | E |
| 23. | Written orders from higher up are followed unquestioningly. | A | B | C | D | E |
| 24. | We follow standard procedures in dealing with most situations which arise. | A | B | C | D | E |
| 25. | People make their own decisions here without checking with anyone else. | A | B | C | D | E |
| 26. | Teachers are careful not to violate the rules in this school. | A | B | C | D | E |
| 27. | Teachers follow clearly specified procedures for doing the job here. | A | B | C | D | E |
| 28. | I ask someone higher up before I do almost anything. | A | B | C | D | E |
| 29. | Teachers are aware of rules regarding their behaviour in and around the school. | A | B | C | D | E |
| 30. | I feel that I am my own boss in most matters. | A | B | C | D | E |

ORGANIZATIONAL INVENTORY

- | | | | | | |
|---|---|---|---|---|---|
| 31. Teachers have fun socializing together during school time. | A | B | C | D | E |
| 32. Teachers experiment with procedures for classroom teaching and other school work. | A | B | C | D | E |
| 33. Teachers' closest friends are other staff members at this school. | A | B | C | D | E |
| 34. How things are done in the classroom is pretty much up to the individual teacher. | A | B | C | D | E |

MARKING SCHEME FOR
ORGANIZATIONAL INVENTORY

Questions 5, 6, 12, 20, 25, 30, 31, 32, 33, 34
are scored 1 to 5 on an increasing scale left
to right.

All other questions are scored 5 to 1 on a decreasing scale
left to right.



DESCRIPTION OF SCHOOL

Please circle the age level(s) of the students you teach:

5 6 7 8 9 10 11 12 13 14 15

The purpose of this questionnaire is to obtain a description of your school on a variety of dimensions. Before responding, please note the following points very carefully:

1. Many of the dimensions are to be responded to in terms of your "class". "Class" in this questionnaire is defined as the group of students assigned to a teacher at any specific point in time. It could be a fixed assignment for a year or a temporary assignment for any shorter period.
2. Each question contains several categories relating to one dimension of schooling.
3. Read all of the categories of one question before responding to that dimension.
4. For each question circle the letter in front of the category that applies to your situation.
5. Please respond to each question.
6. Please respond to the questions as things are, not as they should be or not as they would be ideally.

Example Item:

Library Usage

- A Students go to the library individually whenever they wish.
- B Students go to the library individually with the permission of their teacher.
- ☒ C Students go to the library in groups with the supervision of a teacher or librarian.
- D Students go to the library after regular school hours only.

DESCRIPTION OF SCHOOL

1. Assignment of Students to Teachers
 - A Class lists are decided by teachers and students.
 - B Class lists are decided upon by the teachers.
 - C Class lists are made up by the teachers and principal or vice-principal.
 - D Class lists are made up by the principal and or vice-principal.
2. Time Structure (concerned with organization of school time)
 - A Fluid pattern - one block of time for activities students follow if they choose to on their own time - unprompted by bells.
 - B Structured and unstructured - approximately one-half-day highly organized and one-half-day relatively unstructured.
 - C Mostly structured but some unstructured situations during the day.
 - D Highly structured - school time organized into periods - no allowance for unstructured situations.
3. Unstructured Time (students free to pursue their own interests - not independent study or recess)
 - A More than one hour.
 - B One hour.
 - C No unstructured time is scheduled.

DESCRIPTION OF SCHOOL

4. Rule Making (who makes the rules which govern general school behaviour?)
- A Rules for student conduct are made by principal and/or vice-principal.
 - B Rules for student conduct are made by principal and/or vice-principal and teaching staff.
 - C Rules for student conduct are made by principal and/or vice-principal, teaching staff, and students.
5. Selection of Materials (who selects materials for students?)
- A Student chooses for himself from among all the materials available.
 - B Student chooses from alternatives offered to him by the teacher.
 - C Student is assigned materials prescribed for him individually (different materials for each individual).
 - D Student is assigned materials prescribed to members of his sub group of the class (same materials for all students in the same sub groups; different materials for each sub group).
 - E Student is assigned materials prescribed to all members of his class (same materials for all students in the same class).
6. Learning Environment
- A The learning environment consists primarily of the student's desk or table.
 - B The learning environment consists of the classroom. Students move to interest centres, etc.
 - C The learning environment consists of the entire school.
 - D The learning environment consists of selected aspects of the community.
 - E The learning environment consists of the entire community.

DESCRIPTION OF SCHOOL

7. Decision-making (how decisions are made in the classroom)

- A Classroom activities are directed by external authority (e.g., principal, consultants, superintendent).
- B The teacher makes decisions about student activities in the classroom.
- C The teacher and students cooperatively decide about student activities in the classroom.
- D The student decides what he will do.

8. Teacher Focus

- A Teacher directs attention to more than one class at a time.
- B Teacher directs attention to the class as a whole.
- C Teacher directs attention to sub-groups of the class.
- D Teacher directs attention to individual students.

9. Sub Grouping Criterion

- A Students group themselves according to interests.
- B Students are consciously grouped by the teacher either on the basis of random assignment or information about student achievement, aptitude, physical maturity or social maturity.
- C Students are grouped by principal and/or vice-principal.

DESCRIPTION OF SCHOOL

10. Use of Objectives

- A Objectives are developed for each student individually.
- B The same objectives are used for all students in a sub group of the class.
- C The same objectives are used for all students within class.
- D The same objectives are used in all classes in your school.

11. Evaluation Procedures

- A Evaluation procedures are the same for all students in the school.
- B Evaluation procedures are the same for all students in a class, but differ from class to class in the school.
- C Evaluation procedures are the same for each student within a sub-group, but differ from sub-group to sub-group.
- D Evaluation procedures are different for each student in the class.

12. Student Role in Evaluation

- A Students have sole responsibility for planning and implementing evaluation procedures.
- B Students and teachers participate equally in planning and implementing evaluation procedures.
- C Students participate minimally in planning and implementing evaluation procedures.
- D Students have no role in planning and implementing evaluation procedures.

MARKING SCHEME FOR
DESCRIPTION OF SCHOOL

<u>Questions</u>	<u>Scoring Method</u>
1	Increasing by increments of 2, D to A
2	" D to A
3	" C to A
4	" A to C
5	" E to A
6	" A to E
7	" A to D
8	" A to D
9	" C to A
10	" D to A
11	" A to D
12	" D to A

EXPERIENCE SURVEY SCORES

Total Experience

	Categories			Total
	1-5 years	5-10 years	More than 10 years	
Number	0	59	162	221
%	0	26.7	73.3	100.0

Years in Present School

<u>Less than 2</u>	<u>More than 2</u>
0	221

COMPLETE SCORES OF SCHOOLS

<u>School No.</u>	<u>G.A.</u>	<u>D.S.</u>	<u>L.P.C.</u>	<u>O.I.</u>
1	50	50.0	66	103.0
2	61	46.0	43	120.0
3	73	44.7	58	95.3
4	64	50.0	70	97.6
5	61	49.0	67	79.0
6	77	40.0	91	96.3
7	77	62.7	45	95.7
8	I n c o m p l e t e d a t a			
9	64	61.0	110	73.3
10	71	50.7	36	108.3
11	70	54.0	58	104.0
12	64	52.0	76	80.0
13	63	57.3	66	84.0
14	65	59.3	75	96.3
15	64	56.0	39	105.0
16	57	50.7	42	118.3
17	70	46.0	84	99.0
18	70	50.0	69	86.3
19	77	53.0	69	90.0
20	70	61.3	82	90.3
21	62	57.3	57	83.0
22	70	51.0	74	91.6
23	73	63.3	65	94.0
24	66	45.3	40	106.3
25	77	58.7	67	88.6
26	80	54.0	58	105.3
27	67	48.7	38	108.0
28	65	59.3	75	97.0
29	73	62.0	52	85.0
30	59	47.3	54	105.0

COMPLETE SCORES OF SCHOOLS

<u>School No.</u>	<u>G.A.</u>	<u>D.S.</u>	<u>I.F.C.</u>	<u>O.I.</u>
31	63	50.0	30	108.0
32	68	55.0	56	97.0
33	65	57.3	53	88.0
34	I n c o m p l e t e d a t a			
35	73	54.0	59	106.0
36	64	52.0	69	80.0
37	70	40.0	59	116.6
38	72	59.3	61	115.0
39	62	56.0	81	86.0
40	59	56.0	67	86.0
41	68	57.7	50	84.3
42	60	54.7	112	71.3
43	80	58.0	48	100.3
44	59	49.0	66	75.0
45	62	58.0	57	85.7
46	57	51.3	33	105.5
47	78	60.7	38	67.0
48	40	51.3	61	90.0
49	66	44.0	73	86.3
50	67	50.7	71	92.0
51	76	50.0	79	92.7
52	67	44.7	63	107.0
53	80	56.7	79	96.3
54	76	53.3	105	73.0
55	68	54.0	67	94.0
56	70	48.0	76	96.0
57	69	54.0	71	94.7
58	74	53.3	67	89.3
59	71	46.0	70	91.3
60	68	53.0	71	88.0

COMPLETE SCORES OF SCHOOLS

<u>School No.</u>	<u>G.A.</u>	<u>D.S.</u>	<u>L.F.C.</u>	<u>O.I.</u>
61	72	62.0	54	89.7
62	47	46.7	39	102.0
63	69	50.7	106	61.0
64	76	66.0	83	85.0
65	66	62.0	45	82.0
66	Incomplete data			
67	66	62.0	72	85.7
68	Incomplete data			
69	59	45.0	55	89.0
70	63	48.0	65	103.0
71	59	54.7	77	83.0
72	71	56.0	49	95.3
73	61	58.0	50	94.3
74	64	62.0	79	86.0
75	66	54.0	89	98.3
76	73	64.0	32	75.0
77	75	57.0	39	102.7
78	68	51.0	85	90.0
79	70	51.0	63	90.0
80	80	59.3	70	75.3
81	73	51.0	67	88.0
82	Incomplete data			
83	68	52.7	63	84.0
84	Incomplete data			
85	57	56.0	48	123.0
86	51	48.7	80	87.0
87	61	64.7	103	85.0
88	69	35.0	76	77.0
89	65	56.7	78	88.0
90	59	54.0	94	88.0

COMPLETE SCORES OF SCHOOLS

<u>School No.</u>	<u>G.A.</u>	<u>D.S.</u>	<u>L.P.C.</u>	<u>O.I.</u>
91	77	64.0	34	70.2
92	74	58.0	79	92.7
93	69	59.2	97	117.2
94	69	53.0	67	93.5
95	68	53.0	80	99.7
96	61	54.7	64	112.0
97	60	51.3	61	87.3
98	67	50.7	40	101.7
99	72	58.0	41	95.7
100	50	61.7	46	102.0
101	72	54.0	75	71.0
102	59	51.3	50	102.3
103	74	51.3	56	97.0
104	63	48.0	72	87.3
105	73	44.0	30	111.0
106	80	51.3	112	76.7
107	71	55.0	48	100.0
108	63	51.3	62	87.3
109	69	53.3	59	99.7
110	71	60.7	72	111.7
111	66	58.0	57	85.0
112	63	56.0	53	71.0
113	78	58.7	80	74.7
114	67	44.0	60	107.3
115	94	55.3	87	82.2
116	64	51.3	59	76.7
117	78	53.3	39	103.0
118	65	59.3	97	100.3
119	71	46.0	60	102.3
120	60	55.3	67	86.7

COMPLETE SCORES OF SCHOOLS

<u>School No.</u>	<u>G.A.</u>	<u>D.S.</u>	<u>L.P.C.</u>	<u>O.I.</u>
121	Incomplete data			
122	80	53.0	74	88.3
123	66	58.0	52	88.0
124	72	52.0	30	116.7
125	65	52.7	107	92.7
126	68	55.0	48	98.0
127	76	50.0	58	96.3
128	75	56.0	91	92.0
129	67	56.7	36	102.0
130	76	45.0	40	102.0
131	70	53.3	42	90.7
132	66	41.3	63	88.7
133	69	56.7	44	102.3
134	71	55.0	62	92.0
135	60	52.0	49	104.7
136	66	55.0	58	106.7
137	70	58.0	63	106.3
138	58	55.3	62	100.3
139	67	56.7	62	80.7
140	38	44.0	58	97.0
141	68	48.0	53	98.7
142	63	54.0	44	111.7
143	71	50.0	70	87.3
144	66	61.3	71	96.7
145	71	62.0	101	108.7
146	66	60.0	58	77.0
147	80	54.7	38	110.7
148	71	61.3	56	86.3
149	75	48.7	91	97.0
150	Incomplete data			

COMPLETE SCORES OF SCHOOLS

<u>School No.</u>	<u>G.A.</u>	<u>D.S.</u>	<u>I.F.C.</u>	<u>O.I.</u>
151	62	52.7	42	96.3
152	Incomplete data			
153	51	42.7	28	117.0
154	68	54.0	75	74.0
155	75	48.0	66	84.5
156	66	49.3	27	121.0
157	69	57.0	101	81.0
158	Incomplete data			
159	Incomplete data			
160	59	54.7	75	85.7
161	71	55.3	61	84.0
162	62	62.7	53	87.0
163	71	58.0	30	109.0
164	66	46.0	86	82.7
165	66	61.0	58	92.0
166	76	49.3	88	90.0
167	72	46.0	51	92.0
168	73	60.7	60	90.7
169	76	62.3	34	68.3
170	Incomplete data			
171	68	50.0	35	105.3
172	75	54.0	34	103.7
173	63	49.0	78	90.7
174	63	55.3	75	96.7
175	74	52.7	63	105.3
176	Incomplete data			
177	65	44.0	41	81.0
178	68	54.7	74	89.3
179	62	54.0	47	99.0
180	64	54.0	71	100.7

COMPLETE SCORES OF SCHOOLS

<u>School No.</u>	<u>G.A.</u>	<u>D.S.</u>	<u>I.F.C.</u>	<u>O.I.</u>
181	65	47.3	49	114.7
182	69	46.0	52	102.0
183	70	46.0	67	91.7
184	72	50.0	49	95.5
185	60	66.0	23	102.3
186	80	52.0	55	101.0
187	73	61.3	81	92.3
188	74	66.7	56	73.3
189	62	66.0	67	94.0
190	71	64.0	55	77.0
191	58	54.0	73	99.5
192	75	57.7	38	108.3
193	75	52.0	61	107.0
194	70	51.0	54	80.7
195	60	37.3	33	123.7
196	75	43.3	38	101.7
197	73	72.0	82	101.7
198	78	60.7	68	90.0
199	Incomplete data			
200	64	52.0	72	83.7
201	75	46.0	93	72.0
202	59	61.0	54	81.0
203	62	58.0	86	90.0
204	70	58.7	70	82.7
205	73	50.0	72	96.3
206	76	53.3	79	86.7
207	67	52.0	85	78.3
208	65	45.0	51	105.0
209	57	48.0	51	99.3
210	66	56.0	88	92.3

COMPLETE SCORES OF SCHOOLS

<u>School No.</u>	<u>G.A.</u>	<u>D.S.</u>	<u>I.F.C.</u>	<u>O.I.</u>
211	70	54.0	50	86.7
212	65	51.0	58	82.5
213	65	56.0	50	105.5
214	66	44.7	61	97.7
215	46	58.0	59	100.0
216	Incomplete data			
217	71	53.0	44	100.7
218	65	59.0	103	68.0
219	62	48.0	76	81.0
220	Incomplete data			
221	63	61.3	56	98.3

DESCRIPTION OF SCHOOL SCORES

Type I schools = 66.0, 62.3, 72.0, 61.3, 61.3, 62.0, 61.7,
61.2, 61.7, 63.3, 61.7, 62.0, 62.0, 61.3,
66.7, 64.0, 62.0, 62.0, 62.7, 62.0, 61.0,
61.7, 62.3, 64.0, 64.0.

Type II schools = 51.3, 51.3, 50.7, 53.3, 57.0, 46.0, 48.7,
40.0, 56.0, 54.0, 56.0, 49.3, 55.3, 46.0,
51.0, 52.0, 46.0, 53.0, 58.7, 58.0, 56.7,
53.3, 50.0, 48.0, 35.0, 54.0, 54.0, 51.0,
53.0, 54.7, 44.0, 50.0, 53.0, 50.7, 54.0,
58.7, 50.0, 46.0, 50.0, 53.0, 51.0, 58.7,
53.3, 54.0, 46.0, 53.0, 48.0, 51.0, 58.0,
44.7, 52.7, 41.3, 52.7, 56.7, 55.0, 55.3,
44.7, 52.0, 46.0, 44.0, 54.0, 53.3, 40.0,
54.0, 44.6, 55.0, 50.0, 54.0, 58.0, 51.3,
55.0, 52.0, 51.0, 57.3, 48.0, 58.0, 46.0,
46.0, 57.7, 54.0, 56.0, 50.0, 58.0, 55.0,
55.0, 56.7, 53.0, 53.3, 58.0, 45.0, 50.7,
45.3, 57.0, 53.3, 57.7, 54.7, 43.3, 48.7,
50.7, 56.7, 50.0, 54.0, 52.0, 58.0, 44.0,
49.3.

Type III schools = 54.7, 54.0, 58.0, 56.0, 48.7, 49.0, 54.7,
52.0, 48.0, 54.7, 55.3, 54.0, 52.0, 48.0,
54.0, 50.0, 55.3, 56.0, 49.0, 49.0, 57.3,
50.0, 48.0, 54.7, 55.3, 51.3, 51.3, 51.3,
58.0, 51.3, 44.0, 58.0, 57.3, 45.0, 47.3,
56.0, 48.0, 51.3, 58.0, 52.0, 56.0, 54.0,
54.0, 46.0, 52.7, 50.7, 46.6, 56.0, 37.3,
51.3, 50.0, 42.7.

DESCRIPTION OF SCHOOL SCORES

Type IV schools = 64.7, 62.0, 66.0, 61.3, 61.0, 62.7, 61.7,
66.0, 61.0, 61.0.

LEAST PREFERRED CO-WORKER and
ORGANIZATIONAL INVENTORY SCORES

<u>Type I</u>		<u>Type II</u>		<u>Type III</u>		<u>Type IV</u>	
<u>LPC</u>	<u>OI</u>	<u>LPC</u>	<u>OI</u>	<u>LPC</u>	<u>OI</u>	<u>LPC</u>	<u>OI</u>
101	108.6	112	76.7	112	71.3	110	73.3
83	85.0	106	61.0	94	88.0	103	85.0
82	101.7	105	73.0	86	90.0	79	86.0
82	90.3	101	81.0	81	86.0	67	94.0
81	92.3	93	72.0	80	87.0	56	98.3
72	111.7	91	92.0	78	90.7	54	81.0
72	85.7	91	96.3	77	83.0	53	87.0
71	96.7	91	97.0	76	80.0	46	102.0
68	90.0	89	98.2	76	81.0	23	102.3
65	94.0	88	92.3	75	85.7		
56	86.3	87	90.0	75	96.7		
56	73.3	86	82.2	73	99.5		
55	77.0	85	78.3	72	83.7		
54	89.7	85	90.0	72	87.3		
52	85.0	84	99.0	71	100.7		
45	95.7	80	99.7	70	97.6		
45	82.0	80	74.7	69	80.0		
38	67.0	79	86.7	67	79.0		
34	70.2	79	92.7	67	86.0		
34	68.3	79	92.7	67	86.7		
32	75.0	79	96.3	66	75.0		
		76	77.0	66	84.0		
		76	96.0	66	103.0		
		75	71.0	65	103.0		
		75	74.0	57	83.0		
		74	84.3	57	85.7		
		74	88.3	55	89.0		
		74	91.6	54	105.0		
		73	86.3	53	91.0		
		72	96.3	51	99.3		
		71	88.0	50	94.1		
		71	92.0	50	102.3		
		71	94.7	49	104.7		
		70	82.7	48	123.0		
		70	87.3	47	99.0		
		70	91.3	44	111.7		
		69	86.3	43	120.0		
		69	90.0	42	96.3		
		67	88.0	42	118.3		
		67	88.6	39	102.0		
		67	89.3	39	105.0		

LEAST PREFERRED CO-WORKER AND ORGANIZATIONAL INVENTORY SCORES

<u>Type II</u>		<u>Type III</u>	
<u>LPC</u>	<u>OI</u>	<u>LPC</u>	<u>OI</u>
67	91.7	33	123.7
67	93.5	33	105.5
67	94.0	30	108.0
66	84.5	28	117.0
57	85.0		
56	97.0		
56	97.0		
55	101.0		
54	80.7		
53	88.0		
53	98.7		
52	98.0		
52	102.0		
50	84.3		
50	86.7		
49	95.1		
49	95.5		
48	98.0		
48	100.0		
48	100.3		
44	100.7		
44	102.3		
42	90.7		
41	95.7		
40	101.7		
40	102.0		
39	102.7		
39	103.0		
38	101.7		
38	108.0		
38	108.3		
38	110.7		
36	102.0		
36	108.3		
35	105.3		
34	103.7		
30	109.0		
30	111.0		
30	116.6		
27	121.0		

ABSTRACT OF

Least Preferred Co-worker Score of the Principal
and Degree of Bureaucratization in
Open and Traditional Schools¹

The study investigated the relationship between leadership style of the principal and school organizational structure using the theoretical model developed by Fiedler and the concept of bureaucracy as defined by Weber. Leadership style was the independent variable and degree of bureaucratization was the dependent variable.

The hypotheses of the study were as follows:

1. In "traditional" schools as measured by the "Description of School" (DS), with good leader-member relations as measured by the "Group Atmosphere" questionnaire (GA) there will be a significant positive relationship between "Least Preferred Co-worker" (LPC) and "Organizational Inventory" (OI) scores.

A Spearman Rank Order correlation of -0.828 was obtained which is significant at the 95% Confidence Level, but in

¹ R. T. B. Faulkner, Least Preferred Co-worker Score of the Principal and Degree of Bureaucratization in Open and Traditional Schools, unpublished doctoral dissertation, University of Ottawa, 1980, viii-153 p.

the opposite direction to that predicted.

The hypothesis was not supported.

2. In "open" schools as measured by the DS with good leader-member relations as measured by the GA there will be a significant negative relationship between LPC and OI scores.

A Spearman Rank Order correlation of 0.705 was obtained which is significant at the 95% Confidence Level.

Therefore the hypothesis was supported.

3. In "traditional" schools as measured by the DS with poor leader-member relations as measured by the GA there will be a significant negative relationship between LPC and OI scores.

A Spearman Rank Order correlation of -0.592 was obtained which is significant at the 95% Confidence Level. The hypothesis was supported.

4. In "open" schools as measured by the DS with poor leader-member relations as measured by the GA there will be a significant negative relationship between LPC and OI scores.

A Spearman Rank Order correlation of -0.750 was obtained which is significant at the 95% Confidence Level. The hypothesis was supported.

In the study, data were collected from 205 principals and 615 teachers in 20 County or District School Board jurisdictions.

The conclusions of the study were as follows:

1. In open schools with good leader-member relations there is a significant positive correlation between LPC scores of the principals and the organizational structure as measured by the OI.
2. In traditional schools with good leader-member relations there is a significant negative correlation between LPC scores of the principals and the organizational structure as measured by the OI.
3. In traditional schools with poor leader-member relations there is a significant negative correlation between LPC scores of the principals and the organizational structure as measured by the OI.
4. In open schools with poor leader-member relations there is a significant negative correlation between LPC scores of the principals and the organizational structure as measured by the OI.

The findings concerned with "open" schools and "traditional" schools with poor leader-member relations support Fiedler's theory. However, Fiedler's theory does not explain

the findings for "traditional" schools with good leader-member relations. It has been suggested that outside factors not considered in Fiedler's model may impose or alter situational stressfulness and thus be important contingencies of leader behaviour.

These findings could have practical applications in both principal training programs, based on the organizational engineering concept, and in principal selection for a particular school situation. This study indicates that more study in this area would be warranted. Better knowledge of the relationship between LPC scores and school organization, with the factors of situation stressfulness and principal effectiveness taken into account, could lead to even better application of the organizational engineering technique, and to more careful principal selection for a particular school assignment.