

**A STUDY OF THE RELATIONSHIP BETWEEN
ORGANIZATIONAL HEALTH AND EXECUTIVE
PROFESSIONAL LEADERSHIP IN
ELEMENTARY SCHOOLS**

by

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ABSTRACT

The central problem of this study was an investigation of the relationship existing between the executive professional leadership of elementary principals as perceived by their teachers and the organizational health of their schools, contingent upon group atmosphere as a possible mediating variable in this relationship.

This study was carried out in a sample of forty-one British Columbia elementary schools. The Organizational Health Scale, which was constructed especially for this study, was used to measure seven school organizational health variables: Variable I (adequate goal focus), Variable II (co-ordinated communication system), Variable III (equitable decision-making structure), Variable IV (efficient utilization of human and material resources), Variable V (autonomous; yet adaptive to its environment), Variable VI (problem-solving mechanisms), and Variable VII (maximum opportunities for self-actualization). Executive professional leadership scores for principals were obtained from teacher responses to the Executive Professional Leadership Instrument developed by Gross and Herriott. Group atmosphere was measured by Fiedler's Group Atmosphere Scale.

Results indicated that principals who displayed high executive professional leadership, administered schools rated high in organizational health. Principals who exhibited low executive professional leadership, administered schools rated

low in organizational health. Group atmosphere was not found to be an important mediating variable in these relationships.

TO
my Father and Mother

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CHAPTER I

THE PROBLEM

I. INTRODUCTION

Modern man is enmeshed in an increasingly organized society (2, pp. 1-2). Examples of organizations closely connected with individuals at various times include schools, hospitals, churches, government, and places of employment. With the growth of organizations has come a corresponding interest in measuring their effectiveness. Adequate criteria for determining organizational effectiveness, unfortunately, have not been developed. Organizations, like schools, whose output is difficult to measure have proved particularly difficult to evaluate (2, p. 9). A number of researchers have suggested the general systems model as providing the best means of gauging the effectiveness of all organizations.

This model contends that organizations have needs similar to natural organisms. They must survive and adapt to their environment. These needs are satisfied by means of patterned activity between various organizational parts. Each part contributes to the whole and receives something in return. The inter-relatedness of parts, and the processes occurring between these parts, become the focal point of system analysis (6, p. 27). Discussion of organizational effectiveness, therefore, must consider the total organization and not merely one or more of its components.

Leaders of formal organizations, according to research evidence, influence these organizational processes. Some writers have suggested that these leaders working with their subordinates can modify the processes occurring within the formal structure and thus improve their organization. Attempts by leaders to influence organization members will be more effective in institutions with high group atmosphere.

In this study an endeavor is made to determine whether differences in leader behavior among school principals, as measured by executive professional leadership scores; and differences in group acceptance of their leadership measured in terms of group atmosphere, are related to their respective school's organizational effectiveness, measured in terms of organizational health.

The study is restricted to an investigation of the relationship between a principal's executive professional leadership, the level of group atmosphere present within his school and the organizational health of his school using schools of pre-determined size. It is recognized that there are other extra-organizational and intra-organizational factors which influence the degree of organizational health within educational institutions. This investigation is delimited, however, to a study of the relationship between organizational health and only two intra-organizational variables - a principal's executive professional leadership and group atmosphere with the effect of school size

partialled out.

II. STATEMENT OF THE PROBLEM

The central problem of this study is an investigation of the relationship existing between the executive professional leadership of elementary principals as perceived by their teachers and the organizational health of their schools, contingent upon group atmosphere as a possible mediating variable in this relationship.

More specifically, do school principals have varying degrees of influence on the variables of organizational health? That is, do principals high in executive professional leadership have "healthier" schools than those who are low in executive professional leadership?

In addition, an attempt is made to determine how different group atmosphere situations affect possible principal-organizational health relationships. Subsidiary to this problem, is evidence that given high group atmosphere, a directive style of leadership is most conducive to desirable organizational effectiveness. Conversely, evidence exists which indicates that permissive leadership in high group atmosphere situations would be detrimental to desirable organizational effectiveness. Moreover, principals in low group atmosphere situations, accomplish most when they refrain from directive leadership activities. For this reason,

an attempt is made to examine the effects of group atmosphere on principal-organizational health variables. That is, do principals who display high degrees of executive professional leadership in high group atmosphere situations, have "healthier" organizations than principals in low group atmosphere schools who possess similar leadership qualities? Similarly, do principals in low group atmosphere situations, who display low degrees of executive professional leadership, have "healthier" organizations than principals in high group atmosphere schools who possess low executive professional leadership?

III. THE IMPORTANCE OF THE STUDY

Georgepoulos and Tannenbaum state that of all the problems inherent in social structures, organizational effectiveness is one of the most complex and least studied.

The question arises whether it is possible to develop a definition of effectiveness and to develop criteria that are applicable across organizations and can be meaningfully placed within a general conceptual framework (3, p. 534).

Bennis, as late as the mid 1960's, notes that attempts to formulate organizational criteria to judge effectiveness consistently create controversy and debate (1, p. 36). Most

efforts to develop effectiveness criteria have centered on measures of satisfaction and performance. Research evidence is not clear about the relationship of performance to satisfaction, nor does it prove that these measures are related (1, pp. 37-38). The prevalence of ambiguities and incongruities have caused present research to be of limited value to serious students of organization. Bennis states:

The present ways of thinking about and measuring organizational effectiveness are seriously inadequate and often misleading. These criteria are insensitive to the important needs of the organization and are out of joint with the emerging view of contemporary organization that is held by many organizational theorists and practitioners. The present techniques of evaluation provide static indicators of certain output characteristics (ie. performance and satisfaction) without illuminating the processes by which the organization searches for, adapts to, and solves its changing goals (1, p. 41).

A growing number of researchers are recognizing the criterion of organizational health as being the only adequate measure of judging organizational effectiveness. They perceive external stress and change as being the salient challenges confronting modern organizations. They cite evidence which supports change as being the predominant characteristic of a dynamic society. If organizations are to survive in such a society they must show ability to cope with change. The basic weakness in present effectiveness studies is their failure to recognize the problem of

organizational adaptation to change (1, p. 42). These challenges necessitate that the organization cope with, and solve, problems arising from these demands. The dynamic processes through which an organization copes with these problems provide the critical dimensions of organizational health. Analysis of these processes, should be the focal point in measuring effectiveness. Bennis notes:

If we view organizations as adaptive, problem-solving, organic structures, then inferences about effectiveness have to be made, not from static measures of output, though these may be helpful, but on the basis of the processes through which the organization approaches problems. In other words, no single measurement of organizational efficiency or satisfaction--no single time-slice of organizational performance--can provide valid indicators of organizational health (1, p. 43).

The concept of organizational health is applicable also to schools. As in other organizations, appropriate criteria to measure the effectiveness of school organizations is inadequate (5, p. 9). Educational research in this field has used the time-honored measures of performance and satisfaction to judge school effectiveness. Utilization of these criteria in schools as in other areas, has not provided a valid basis for evaluation. Such studies tend to view organizations at a fixed point in time and fail to analyze the dynamic processes occurring within schools.

Robinson explains:

The reason for this general dissatisfaction is that these measures show a static picture of output characteristics and really tell us nothing about the dynamic processes going on within the organization (5, p. 9).

Due to the limitations of performance and satisfaction criteria, proponents of the organizational health model suggest that educational administrators view their schools as having certain functional requirements. Determination of the school's organizational health would be based on the absence or presence of these requirements at different points in time. Emphasis is on evaluation of the school's internal processes and its ability to cope with and solve those problems which are confronting it.

Gross and Herriott, in a key study which attempts to assess the difference leadership makes in organizations, examine the relationship between executive professional leadership and three effectiveness criteria. The criteria regarded as being widely accepted and meaningful measures of school effectiveness were staff morale, professional performance of teachers, and pupil learning.

These same criteria are significant in a discussion of organizational health. Evaluation of organizations based on the criterion of organizational health is directed towards examining the dynamic processes occurring within an organization. In their discussion of executive professional

leadership and its relationship to the above effectiveness criteria, the authors investigate these dynamic processes.

They believe, for example, a principal would strive to maximize his staff's skills and attempt to develop amongst his teachers a relationship based on their common concern for the pupils. Creation of such an environment would be conducive to the development of high morale in the teachers (4, p. 35). In another instance, they reason that a principal who displays great interest in improving the quality of the educational program will attempt to communicate these expectations to staff members. A principal, moreover, who brings to his teachers' attention relevant educational literature, would be seeking to convey to them his expectations that they should be interested in improving their performance. Creation of these conditions, furthermore, would prove conducive to developing increased professional performance among teachers (4, p. 39).

The findings show significant positive relationships between executive professional leadership and Gross and Herriott's three criteria of school evaluation mentioned above (4, p. 151). The principal in each case, is observed to be engaged in various dynamic processes which have important consequences on his school's effectiveness.

In this present study, an attempt is made to link theoretical concepts of organizational health to actual school situations. The investigation seeks to determine

whether the dimensional criteria of organizational health are applicable to schools and in particular to a large number of school situations in the province of British Columbia. A further attempt is made to determine whether these processes could be influenced by principals engaged in executive professional leadership; and if so, to what extent they could be influenced by these leaders.

The North American trend for the public to seek justification for the growing cost of education poses problems for educational administrators. It is hoped that this study may indicate satisfactory criteria with which to judge educational institutions and provide a practical framework for those educational leaders interested in improving the effectiveness of their schools.

IV. OVERVIEW OF THE REPORT

In the preceding chapter, the problem was stated and discussed. Points were brought forth to underline and stress the significance of the study. Chapter II analyzes the problem and presents the hypotheses which extend from the analysis. Chapter III outlines the research methodology used in the inquiry. Chapter IV examines and discusses the results of the study; and Chapter V presents a résumé of the findings with conclusions and discussions for future research.

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CHAPTER II
ANALYSIS OF THE PROBLEM
I. PRINCIPLES OF ORGANIZATIONAL
EFFECTIVENESS

Two Views of Organizational Analysis-Goal Models and System Models.

Organizational analysis has focused on two approaches to the study and evaluation of formal structures. One of these approaches is best exemplified by Weber's concept of organization as a rational model (goal model). The other is termed the natural-system's model (14, p. 404).

The rational model conceives organizations as being designed purposely to achieve established group goals. Structures within the organization have been consciously created and rationally administered in order that the organization realizes its goals in an efficient manner. To see that various operations are being carried out efficiently, a hierarchy is established. Superiors supervise the efforts of subordinates. Orders must be fulfilled properly and regulations adhered to. Decisions are based on judicious thinking, utilizing specialized knowledge, with careful regard to formal procedures and channels of communication. Irrational outcomes are viewed as being random mistakes, caused by ignorance or error (14, pp. 404-405).

Organizations utilizing this model are conceived as being composed of individual units, any of which can be

manipulated without effect on any other part of the organization. Greater efficiency in these units, can be obtained by the use of prudent decision-making. Hence, deliberate goal enhancement within the organization's subunits will contribute to the realization of objectives of the whole organization (14, p. 405).

System models, on the other hand, focus on organizations as a single unit. Attainment of specified group goals is only one aspect of organizational requirements. Survival and maintenance of equilibrium are viewed as being among other basic needs. Organizations, therefore, must allocate resources to satisfy these needs. In doing so, the formal structure may neglect or distort the organization's goals to satisfy these requirements. Once created, the organization will seek new goals to replace those that have been achieved or are no longer pertinent (14, p. 405).

Organizations are considered to be adaptive problem-solving structures. When their existence is threatened, response comes from the total organization and not from one or more of its parts. These responses are perceived as defense mechanisms and have been shaped by values which are shared and internalized by group members. Such responses are unplanned; yet, are an inherent part of the whole organization (14, p. 405).

In the systems model as opposed to the rational model, deviations from organizational planning are not seen wholly

as errors and thus harmful to the organization. Mistakes may be helpful to the organization and actually enhance its survival capabilities (14, p. 406).

System theorists, moreover, stress the interdependence of organizational parts. Changes or modifications in one or more of these subunits will effect all parts of the organization. Unanticipated consequences are seen as disrupting the organization's equilibrium and not supportive of the planner's design. Long range development of the organization is thought of as being evolutionary; deliberate manipulations with the intention of enhancing developmental processes are felt perilous (14, p. 406).

Difficulty in Establishing Criteria for Measuring Organizational Effectiveness.

Effective utilization of either of the above models cannot occur without reference to certain functional requirements the organization must possess to operate. Etzioni states:

A well-developed organizational theory will include statements on the functional requirements various organizational types must meet. Just as human beings have different needs, so organizations require different things to operate successfully.

.....
 ... [Organizational theory] can serve as an important frame for specification - that is, for the development of special theoretical models for the various organizational types - but it cannot substitute for such theories by serving in itself as a ...model, to be applied directly to the analysis of actual

organizations (10, p. 18).

Past research in organizational evaluation has used a wide variety of criteria to measure effectiveness. Development and establishment of these criteria has raised several questions. Bennis explains:

Raising the problem of criteria, the standards of judging the "goodness" of an organization seldom fail to generate controversy and despair. Establishing criteria for an organization...accentuates questions of value, choice, and normality and all the hidden assumptions that are used to form judgments of operations (3, p. 36).

Dimensions commonly associated with organizational effectiveness may be categorized into two main groups: (1) those dealing with factors of performance and (2) those dealing with factors of satisfaction. Those performance dimensions designed for industrial settings have included such criteria as profit, cost, and individual output. Dimensions of satisfaction encompass such measures as morale, job commitment and attitudes toward company or employer (3, p. 37).

Reliance on such criteria for measuring organizational effectiveness is hazardous. High satisfaction, for example, does not necessarily promote high performance. Bennis quotes Likert:

It is not sufficient merely to measure morale and the attitudes of employees toward the organization,

their supervision, and their work. Favorable attitudes and excellent morale do not necessarily assure high motivation, high performance and an effective human organization. A good deal of research indicates that this relationship is much too simple. (3, p. 38).

This review of effectiveness criteria indicates the complexities involved in this area of study. The researcher is confronted with a number of problems, some involving questions of value and/or the applicability of particular criteria to specific organizational settings. What may be proper in one situation may be totally inappropriate in another.

Research must move away from evaluative techniques which yield fixed measures of certain output characteristics (ie. performance and satisfaction). Concentration must be focused on the dynamic processes of problem-solving that indicate the critical dimensions of organizational health.

Organizations are being challenged by external stresses and demands for change. To survive, the organization must cope with these forces (3, p. 41). Its ability to meet, adapt to, and solve these problems is the critical aspect of an organization's effectiveness. Bennis indicates:

The main challenge confronting today's organization, whether it is a hospital or a business enterprise, is that of responding to changing conditions and adapting to external stress. The salience of change is forced on organizations because of the growing interdependence between their changing boundary conditions and society...and the increasing reliance

on scientific knowledge. The traditional ways that are employed to measure organizational effectiveness do not adequately reflect the true determinants of organizational health and success. Rather, these criteria yield static time-slices of performance and satisfaction, which may be irrelevant or misleading. These static, discrete measurements do not provide viable measures of health, for they tell us nothing about the processes by which the organization copes with its problems. Therefore, different effectiveness criteria have to be identified, criteria that reveal the processes of problem solving (3, p. 44).

Difficulty in Establishing Criteria for Measuring Effectiveness in School Organizations.

Establishing criteria to assess the effectiveness of school organizations is not an easy task. Educators have not promoted interest in school evaluation. This lack of interest in the subject has been due partially to the fact that schools, in comparison to business concerns, have always had assured political and economic support, plus a captive clientele. They have not had to justify their existence and purpose in society (26, p. 8). Only recently with greatly increased public concern over rising educational expenditures has there been a need to justify school demands for increased human and material resources.

Thus, the development of appropriate criteria to measure the effectiveness of school organizations has been inadequate. As in other organizations, most of the criteria used to judge effectiveness can be grouped into either (1) performance factors, such as: individual output,

group productivity et cetera or (2) satisfaction factors such as individual work satisfaction and group morale (26, p. 8).

Of these two measures, performance factors have been employed most widely in effectiveness research. Such studies have used the number of scholarships awarded, the number of students passing government examinations, and the percentage participating in extra-curricular activities as the basis for evaluating educational operations.

These measures are static. Each of the factors indicated what the school had accomplished when the investigation was in progress. At the time the target institution was examined it might, for example, have had an unusually high proportion of bright pupils. Empirical observation indicated that a large number of these students won scholarships. The school, therefore, was rated to be highly effective. However general student ability changes from year to year; one class might receive a large number of scholarships one year; while another class in the following year might receive none. In a study done to determine variability attributes in student achievement scores, Greenfield determined that 67.64 percent of the observed differences in students could be related to individual pupil traits rather than school characteristics. Sources of remaining variations could be attributed to classes, districts, and schools, respectively (15, p. 29). Certainly this is a meager illustration, but the implication

is significant. Research studies of this nature must be interpreted with considerable caution.

Studies based on satisfaction measures should be considered in proper perspective also. Most research in this field has used measures such as school climate, teacher satisfaction, and student morale (26, p. 8).

Halpin and Croft identified and constructed a conceptual measure of "organizational climate" in schools. From their research, six organizational climates were delineated and defined. These climates were then arranged on a continuum ranging from an open climate to a closed climate. The writers hypothesized that the organizational climate of a school was determined by the behavior of both teachers and administrators. To test this assumption, a questionnaire, the Organizational Climate Description Questionnaire (OCDQ), was designed which considered (1) group (teacher) behavior and (2) administrative behavior. Each of the two broad areas contained four subtests which allowed examination of specific behavioral aspects of the two main areas under study. Scores obtained from the eight subtests were used to determine into which organizational climate the school fitted.

Analysis of the profiles received from each of the participant elementary schools provided, along with climatic characteristics, three variables which could be used to view social interactions that took place within the school. These variables were authenticity, satisfaction, and leadership.

initiation.

Andrews undertook a study to test the validity of the OCDQ. He sought to determine whether the relationships found existing between the questionnaire's subtests were theoretically meaningful.

Correlating each of the eight subtests with each other, he found that of the 36 possible relationships, 20 were significant and in the general direction expected. This data, was considered to establish the questionnaire's validity (1, pp. 324-325).

Of the many correlation analyses made by Andrews, his description of climate scores and their relationships with rated school effectiveness is of particular interest to this study. He found that teachers' ratings of school effectiveness were correlated most highly with Espirit (.59) and climate. A significant negative correlation of $-.42$, furthermore, was found between Disengagement and climate. Contrary to author expectations the relationship between climate and Production Emphasis was not strongly related, (.08) (1, p. 330).

Such results must be interpreted with caution. The OCDQ uses teacher observers as raters; therefore, responses are subjective assessments by individuals who are personally involved in a given situation. Observer bias, must be considered. One may expect that subtests which tend to show favorable relationships with teacher satisfaction will

be favored over those subtests which tend to indicate negative relationships with teacher satisfaction (1, p. 330). Questions of reliability, thus, arise when considering possible relationships between climate and school effectiveness ratings using the OCDQ instrument.

Further evidence of the difficulty in formulating adequate school effectiveness criteria is revealed in other studies.

Mackay, for example, sought to determine whether individual behavior of organizational members was related to the structural framework within which they operate. He assumed that bureaucracy had negative affects on certain organizational aspects. A teacher's dissatisfaction with any aspect of his school's structure would tend to reduce his identification with the school. It was believed that such a reduction would dampen the teacher's enthusiasm and productivity (20, p. 5). Conversely, strong teacher identification with the organization would heighten his enthusiasm and increase his productiveness. Mackay felt that bureaucratic schools would possess, among other things, a high level of hierarchical authority. Such an authority would result in an over-centralized decision-making mechanism. This condition would impede effective teacher performance and productivity (20, p. 7).

Using the Organizational Inventory questionnaire, it was found that schools which rated high on hierarchical

authority were associated with low pupil productivity as measured by Grade IX provincial examination results (20, p. 7).

Schools which had a high degree of hierarchical authority showed a significant negative correlation with pupil achievement. Students from schools in which decentralized decision-making was utilized and which showed minimal hierarchical authority relations between teacher and principal, had higher performance ratings on standardized tests (20, p. 7).

Despite this correlation between authority and pupil achievement, Greenfield found that pupil performance in examinations was due largely to individual student traits rather than school characteristics (15, p. 29). Although a relationship was found between pupil achievement and classes, the writer noted that the teacher was only one of many important elements in a classroom system which influenced achievement (15, p. 30). The extent of the relationship between teacher performance and student achievement in Mackay's study, hence, becomes somewhat vague. Consequently, the relationship between school effectiveness, teacher satisfaction, teacher performance, and pupil achievement is very complex. Evidence is not clear, as to the exact relationship between these variables; nor is it certain as to the degree of interdependence between these variables.

The inherent limitations of performance and satisfaction

criteria in school evaluation have forced educational researchers to examine other measures of organizational effectiveness. Attention appears to be focusing on organizational health as the only adequate criterion to judge school effectiveness. Robinson states:

Because of the inherent limitations of performance and satisfaction criteria for measuring organizational effectiveness, many organizational theorists are advocating that those officials concerned with the effectiveness question view the organization as having certain functional requirements. The presence or absence of these requirements at different points in time would be important in determining whether the organization was "healthy" (effective) or "sick" (ineffective). This point of view says that the only adequate criterion for determining the effectiveness of an organization is its degree of organizational health (26, p. 9).

Coping with external stress and change is a key issue confronting school and business organizations. These institutions must adopt a policy of flexibility. They must be prepared with appropriate responses to demands for change when it is in their best interests to do so. Evaluation of institutional effectiveness, therefore, must be based on the means by which an organization approaches problems. Static indicators of performance or satisfaction measures can not validly be used as measures. At any given point in time performance and satisfaction measures may be quite low within an organization. This does not mean that the institution is unhealthy or that it is not effectively solving its problems

over an extended period. Likewise, an unhealthy organization may indicate at times relatively high levels of performance and satisfaction. Only examination of the organization on a long term basis, will give accurate readings of its ability to cope with change (26, p. 9).

Healthy organizations, hence, can be described as open systems, displaying a realistic awareness of "who they are and where they are going" and maintaining sufficient problem-solving mechanisms to cope with a changing environment in discernible terms. Robinson states:

Organizational health can be conceived of as a set of functional requirements which gives the organization the ability to have a certain identity, to understand itself and its environment in distortion-free terms, and to cope adequately with its constant flow of problems (26, p. 9).

The foundation of a healthy institution is based on the dynamic processes through which the organization pursues problems (3, p. 43). Assuming this statement, what criteria can be established which will characterize a healthy system? Based on articles written by Robinson and Miles, the following measures were adopted as essential properties of a healthy school organization:

An Adequate Goal Focus. A healthy school will have a high degree of goal focus. Its members will be well aware

of the school's goals and work toward the attainment of these goals. Often, school goals are immeasurable and ambiguous. The change occurring in students as a result of school influences, is sometimes difficult to determine because these effects occur over a long period of time. Secondly, difficulty in determining school goals results from the existence of strong defense mechanisms shielding school personnel and policies from external criticism.

Schools do not want to admit that part of their efforts is directed toward the accomplishment of custodial care. In public pronouncements academic orientation is obvious with concomitant neglect of other fundamental objectives (25, p. 23). School personnel are not aware of the discrepancy between an organization's real goals and its stated goals, which may be difficult to measure (26, p. 9).

Commenting on goal focus and goal ambiguity, Robinson states:

Poor goal focus and high goal ambiguity are characteristic of many school organizations and they are major factors contributing to ill-health in schools. Many schools are not sure what goals they are pursuing and they are often not aware that their real goals are different from their stated goals. In addition, many schools choose goals, which are either unattainable or immeasurable. In any event, poor goal focus and high goal ambiguity are prevalent in many schools, and are a major cause of organizational sickness (26, p. 9).

A Co-ordinated Communication System. A properly functioning school engaged in activities designed for goal attainment, needs communication which is free of distortion between school personnel and between the school and its environment (26, p. 9).

Few schools have adequate communication networks; unsatisfactory communication channels are evident particularly, between the upper and lower levels of the administrative hierarchy, between school boards and teachers, and between all school employees and lower income groups (26, p. 9).

Williams investigated the communication problems existing between a large urban school system and its feeder public. He considered that school systems are basically providing the public with communications that the latter consider irrelevant. Schools tend not to release controversial information, nor do they publish statements reflecting internal criticism. Failure to provide the public with pertinent information of both critical and positive nature, has contributed to a sense of skepticism among laymen towards school communiques. The existence of professional attitudes has increased the barrier to effective communication between schools and the community. Schools have willingly passed on information of a positive nature to the lay-public while public opinion, particularly if critical, has not been well received. School personnel consider themselves experts in their field and that they are uniquely qualified to handle

educational problems. Consequently, school operations tend to be very insular. The writer concluded:

The inability of the school systems to communicate what was considered by the public to be relevant information, coupled with the insular character of the administrative organization, has resulted in the breakdown of external communication. The resulting problem, has produced an everwidening schism between the school system and growing numbers of its publics (32, p. 2)

An Equitable Decision-making Structure. MacKay notes that a bureaucratic authority structure within schools has negative effects on school effectiveness. In schools where directives are sent down the line and little opportunity is available for upward communication, teachers express low satisfaction. Dissatisfied staff personnel lead to a lowering of teacher performance ratings which in turn tends negatively to effect pupil achievement (20, p. 7).

Simpkins and Friesen found in a study on shared decision-making that teachers prefer to play a major role in deciding questions of classroom management. They want greater involvement in formulating certain aspects of school policy. Those in higher authority are seen as playing a decisive role in matters outside the realm of classroom affairs (28, p. 16). Extending participative decision-making to those areas of particular concern to teachers could contribute to increased organizational health.

Efficient Utilization of Human and Material Resources. The healthy school will see that human and material resources are utilized to their greatest efficiency; teachers particularly, will be assigned tasks in accordance with their experience and training.

Frequently schools do not engage in such practices. MacKay and Robinson, according to the latter's article, find in research on bureaucratic organizations, that teachers desire more work specialization than they currently possess (26, p. 11).

Sufficiency and availability of teaching aids and materials is another crucial factor. Ziolkowski notes that teachers who rate their school superior perceive their principal as extending himself to ensure an adequate supply of teaching aids and materials (33, p. 3).

Adaptability of a School to its Environment. Healthy schools are adaptable and having the ability to discern accurately the needs of the environment respond to these demands. At the same time, the schools have a degree of independence and environmental demands do not determine the school behavior and organization in totality (26, p. 11).

Holdaway and Seger in discussing the slow rate at which educational innovations are adopted, make reference to Carlson's work in regards to this matter. The latter writer assumed that resistance to educational innovation occurs

because: unlike agriculture and medicine, education has no individual purposely designated as an educational "change agent", practitioners are unfamiliar with new ideas and techniques in education, and because of the inherent "domestication" of educational organizations. Unlike many other organizations, for example, schools have assured political and economic support, plus a captive clientele (19, p. 1). These circumstances have caused them to become "domesticated" - to show indifference toward improving school effectiveness (26, p. 8).

At the same time, these writers point out the possibility of an optimum adoption rate for educational innovation. Too much change can be as harmful to a school as excessive maintenance of status quo (19, p. 1).

Mort, as reported in Robinson's article, shows that educational institutions are slow to adapt to environmental demands. Diffusion of new educational ideas in an average school may take a period of 25 years. Miles, according to Robinson, indicates:

Studies investigating the diffusion rates for programmed learning, language laboratories, team teaching and new curriculum materials all show the rate predicted by Mort. The rate of adoption of new practices in education still compares unfavorably, however, with adoption rates in industrial and commercial firms and among professional groups (26, p. 11).

Problem-solving Mechanisms. All school organizations are confronted with problems. Healthy and unhealthy schools, however, face their problems in different ways. Healthy schools cope with problem solving on a continuous basis; unhealthy schools do not. For example, unhealthy schools handle pupil-teacher conflict and student alienation when the problem manifests itself. Few institutions seek to anticipate problems and deal with potential conflict areas before they become evident. Robinson comments:

It seems reasonable to suggest that many school organizations have failed to develop adequate problem solving structures and procedures to cope with some of their perennial problems. In most school organizational situations, ad hoc structures and procedures are used to deal with persistent problems such as pupil-teacher conflict, student disaffection, school-community antagonism, etc. (26, p. 11).

Maximum Opportunities for Self-actualization. A healthy school provides its members with an opportunity to express their full potential and expand on this potential. In return for outstanding performance and creativity, the school gives them a sense of satisfaction and a chance to utilize further their talents.

Most schools do not provide their members with these opportunities. Trusty and Sergiovanni found that teachers need to be provided with increased opportunities to satisfy certain need deficiencies. Their studies indicate that

group satisfaction would increase when members had adequate occasion to enhance their esteem, autonomy, and self-actualization. The writers explain:

Increased opportunities for professional advancement must be provided if teachers are to experience more need fulfillment at higher levels of the Maslow hierarchy. This would necessitate a re-examination of the role of the teacher and the role expectations held by administrators for teachers (31, p. 13).

Summary.

In summary, there are two models by which an organization may be analyzed--the goal model and the systems model. There is evidence of considerable difficulty in formulating criteria to make these approaches applicable to theoretical and practical research. A critical analysis of effectiveness criteria based on satisfaction and performance measures, stresses the limitations of such criteria.

As an alternative measure to organizational effectiveness, the criterion of organizational health was suggested. In consideration of organizational health seven essential properties may be defined as indicators--an adequate goal focus, a co-ordinated communication system, and equitable decision-making structure, efficient utilization of human and material resources, adaptability of a school to its environment, problem-solving mechanisms, and maximum opportunities for self-actualization of all personnel.

II. LEADERSHIP AND ORGANIZATIONAL EFFECTIVENESS

Leadership Performance of Principals and the Relationship to Organizational Effectiveness of Schools.

A great deal of research evidence exists describing what school leaders do or are expected to do. Little evidence is available to indicate the difference their leadership makes (29, p. 703).

The premise that administrative behavior has some impact on schools was investigated by MacKay. To test this assumption, scores from achievement tests were selected as an indicator of goal achievement. Appropriate data to examine the impact of leader behavior on schools was taken from Greenfield's system analysis of a sample of Alberta schools. Results from this study, as mentioned earlier, indicated that differences in student scores were largely the result of individual pupil traits. The remaining differences, which were also found statistically significant, were the consequence of students being in a particular classroom, a particular school, or in a particular district.

To determine the difference leadership makes in schools, MacKay analyzed the distinctions in pupil scores to show what percentage of the variation between groups was attributable to each of the three sources with pupil traits being partialled out (20, p. 49). He found, for example, that 49 percent of the variance in language score could be ascribed to differences

between classes, 14 percent of the variation in this score was due to between school differences, and 36 percent of the variation was accounted for by differences between districts.

Mackay determined on the basis of this evidence that leadership did make a difference to a school's goal achievement. Disparities between schools and districts were due partially to administrative behavior. He explains:

If one can argue that "administration" including administrator behavior is one component of the differences between schools and between districts, then administration is one of the things which made a difference on this very concrete piece of evidence about goal-achievement (20, p. 49).

Research by Gross and Herriott adds further evidence to support the contention that administrative behavior has an impact on schools. These writers presume that principals will internalize a role definition which will emphasize their duty to improve the quality of their staffs' performance (17, p. 8). If such an assumption is correct, they reason that principals engaged in practicing executive professional leadership (EPL) would influence their school's operation.

Staff morale, professional performance of teachers, and pupil learning, were selected as being meaningful criteria of organizational effectiveness. The writers feel, on the basis of their definition, that there must be a positive relationship between a principal's EPL and the above effectiveness criteria. Principals will direct their

efforts towards improving each of the above areas: they will attempt to exemplify the importance of educational tasks and try to maximize the skills present within their staffs. They will, moreover, strive to provide meaningful staff meetings by means of which they can attempt to improve the quality of the educational program within their schools. They will convey strong service expectations to their teachers and will expect them to develop similar standards.

The authors find significant and positive relationships between EPL and selected organizational effectiveness criteria. Attempts by the principal to influence various aspects of his school's performance are found to have a definite impact on the operation of the organization.

The above two studies demonstrate the important influence that a principal's formal leadership position has on activities occurring within his school. How would a principal's leadership behavior, therefore, affect the organizational health of a school? Some possible ways are:

Adequate Goal Focus. Healthy organizations have members who know what the organization's goals are and direct their efforts toward the attainment of these goals (26, p. 9). Many schools do not know what their goals are; their members have difficulty discerning between the school's real goals and its stated goals.

To overcome these incongruities staff personnel must

be made aware of the organization's goals. Miles suggests that a principal meet with each of his teachers individually and review the teacher's work in relation to organizational and personal goals (25, p. 29). "Targets" should be established and agreed upon collectively by superior and subordinate in regard to the latter's work and personal development.

Such a technique is supported in a recent article by Blumberg in which he notes the inadequacy of present teacher supervisory methods (5, p. 3). In a survey, more than fifty percent of the teacher participants indicated a lack of confidence in the school's method of evaluation; only one percent of the teachers saw their supervisor as a source of new ideas for classroom teaching (5, p. 1). Emphasis is placed in the article on the need to change present teacher attitudes in this area. Supervisors, in individual teacher discussions, should promote the latter's personal and professional development (5, p. 2). Blumberg states:

One way of viewing the conference between a supervisor and a teacher is in the context of a helping relationship. In this form of interaction, the intent of one person is to promote the growth and improved functioning of another individual. With respect to the supervisory conference, the supervisor's objective is to help the teacher make more functional use of his own resources and therefore perform more effectively within the classroom (5, p. 1).

One objective of the supervisory conference then, is to improve teacher performance. Research exists which demonstrates that professional leadership behavior relates positively to teacher performance. If the principal can effectively improve the quality of his staff's performance, one can assume the existence of a positive correlation between improved teacher performance and organizational effectiveness.

Co-ordinated Communication System. Distortion-free communication must exist between all members within a healthy school. Frequently, however, established communication networks within a school district or school are inadequate. These inadequacies may relate, directly or indirectly, to the attitudes of an administrator (9, p. 4).

Erickson and Pedersen, for instance, examined several major obstacles to communication in elementary and secondary schools. They determined that there were two major factors - situational and personal - which acted as deterrents to effective communication.

In discussing situational factors, they note that status differences between superior and subordinate complicate communication linkages (9, p. 1). Messages from subordinates may be ignored by superiors even though accurate. Subordinates, particularly those interested in advancement or salary increases, may accept directives from their superiors, even when erroneous. Similarly, messages from the board office to principals may be toned down when the latter feels that

they impose a burden or restriction on their leadership. Teachers, moreover, may be unable to discuss common problems with colleagues, because of classroom "captivity" - a teacher may develop a sense of isolation and direct his entire attention inward toward his classroom and ignore what is occurring in other parts of the school.

Individuals in administrative positions need to be aware of these problems. They must be sensitive to and question why subordinates may dislike a particular communique. Efforts must be made to minimize status differential between personnel. Informal communication links must be recognized and encouraged. Appreciation of these factors will assist the administrator in developing more effective communication links and aid him in acquiring information he might not obtain otherwise (9, pp. 1-2).

Personal factors are the other major stumbling block to effective communication. Principals when engaged in communicating with teachers frequently express hidden feelings by their nonverbal behavior, albeit unintentionally. Should the teacher perceive these expressions as being unfavorable, he may withdraw from future discussion and debate with his principal. Fear of revealing administrative ineptitude may result in the principal relying on formal procedures and an increase of arbitrary rules in the daily operation of his school. Teachers then may become indifferent toward their school and perform at minimal levels.

Rewards in such a situation tend to be based on conformity rather than individuality.

Based on this information the authors conclude that principals could enhance communication by supporting individuals who desire greater self-actualization by judging employees on what they accomplish, and by being willing to listen and accept pertinent suggestions and criticisms (9, p. 4).

An Equitable Decision-making Structure. In a healthy organization, there is a reasonable distribution of shared decision-making existing among the principal and organizational members. Decisions involving areas of interest to teachers are reached collectively rather than unilaterally.

In schools where principals exercise strong authoritarian control and a lack of involvement exists among lower organizational personnel, MacKay found definite negative effects (20, p. 7). Teachers tended to be more dissatisfied with their schools' operations, and this consequently has negative influences on pupil achievement. Schools of this nature, have a low effectiveness rating.

Simpkins and Friesen found in a study on shared decision-making in schools that teachers wish to play a major role in deciding questions of classroom management (28, p. 16). Bridges suggests that there also exists an area in which shared decision-making is questionable. Matters which fall

into this zone are left to the principal. He states:

... it is important for him, the principal, to make quite clear to the teachers the boundaries of their authority and the area of freedom in which they operate.

.....

Once the principal has determined whether the decision is one which should be shared with his teachers, decided in what phase of the decision-making process they will be involved, and what their role will be, he must constitute the decision-making group (6, p. 55).

The number of years teaching experience, the level of teaching, sex, and marital status of teachers are attributes that are providing new thoughts on the decision-making process and the teacher's role in it. Some staff members, because they possess greater degrees of one or more of the above qualities, may feel that they are excessively involved or saturated with problem-solving issues. Other members, because they possess the above attributes to a much lesser degree may feel themselves to be too little involved. Identification of those teachers who wish a more participative role in the decision-making process, and the implementation of their involvement, is a major task of the administrator. Likewise, he must recognize those members who feel overburdened in problem-solving and adjust their participation accordingly (2, pp. 44-57).

Hence, the principal plays a key role in determining what constitutes an equitable decision-making structure. Not

only must he attempt to involve teachers in those matters which are of interest to them, but he must identify also, members who feel overly involved and desire less responsibility. By striking an appropriate balance between involvement and non-involvement of teachers in the decision-making process, the principal can create an optimum level of satisfaction in his staff.

Efficient Utilization of Human and Material Resources. Healthy organizations make efficient use of their human and material resources. Teachers are assigned subjects in which they have had experience and training. Sufficient material is readily available for supplemental use by teachers. Evidence exists, however, which indicates that teachers desire greater work specialization than they obtain currently.

Ziolkowski, in examining the principal's role found that the school administrator was the key individual to carry out the overall task of instructional supervision. He indicates:

...the principal is still in a key position to motivate his staff to remove sources of frustration, and to reconcile the goals of the institution with those of the individual staff member.

.....

As a motivator he can be instrumental in removing frustration and providing the stimulus required to enable teachers to function at their professional best (33, p. 1).

To examine this premise the writer undertook an investigation of the differences in supervisory practices and in the general supervisory style of high school principals in institutions judged superior or inferior according to the general effectiveness of their instructional supervision program (33, p. 2). He compared the general supervisory style of the principals as perceived by teachers in the above superior and inferior schools, and noted several differences which were significant beyond the .001 level. Principals in schools rated superior according to the results, were keenly aware of what was going on in the school as a whole; "very much interested" in teachers as individuals; spent considerable time and effort matching appropriate teacher and subject areas when formulating a new time-table; and went to considerable lengths to insure an adequate supply of teaching aids and materials for staff utilization (33, p. 3).

Adaptability of a School to its Environment. Schools which are considered healthy are quick to respond to appropriate environmental demands and will have little difficulty in adapting to these, if it is in the school's best interest. Most schools, however, are slow to adapt themselves to new ideas (26, p. 11).

Holdaway and Seger undertook a study which investigated the possibility of a relationship between a school's principal and the school's rate of adopting innovation. An innovation,

in this research, is defined as a new practice which is capable of being adopted in any large urban elementary school, and which has been introduced recently enough for many principals to be in the process of adopting it (19, p. 14).

The study had two main purposes. First, a major objective was to determine whether large urban elementary schools showed significant differences in their rate of adopting innovation. Secondly, the authors desired to know whether particular characteristics of principal and school were linked with the number of adoptions, the extent of adoptions, and the passage of time required for the adoption of five specified innovations (19, p. 14). These selected practices were: departmentalization of elementary school personnel teaching Grades 4-6; recurrent use of instructional supervisors; scheduling of parent-teacher conferences in school time; the instruction of conversation French in Grades 5-6; and the periodic use of educational television (19, p. 14).

Results from the study showed that age, education, and experience of a school's principal are related to different rates of innovation in elementary schools. Specifically, the social economic level of the population living within the school's boundaries and the recency of a principal's education approaches significance when related to the number of practices listed above which are being adopted within the school. A significant and negative correlation is to be found between the extent of adoption of the above innovations and the principal's years of experience in classroom teaching, the number of years he

has occupied the principalship, and the school's pupil-teacher ratio. Finally, the number of years that have elapsed since the principal's completion of formal schooling is found to be positively and significantly related to the rate of innovative adoption (19, p. 15). The writer concludes:

...all educators from the superintendent to the teacher must be concerned with the search for and adoption of better practices. Possibly the frequently mentioned lag can be reduced if a united approach to change is accepted. In such an approach the principal must be regarded as a key figure (19, p. 16).

Problem-solving Mechanisms. Problem-solving is a major challenge to all organizations. Both healthy schools and sick schools have problems; the difference between the two types of institutions, however, is that the healthy school effectively copes with its problems whereas a sick organization does not. Most schools have resorted to ad hoc structures and procedures for handling their problems. They have not developed procedures for effectively coping with recurrent problems (26, p. 11).

McPherson's study of teacher turnover in the inner-city provides a good illustration of the importance of long range planning in confronting a perennial issue.

Teacher turnover is an observed phenomenon of all schools. This problem, however, is most severe in low income sections of the city. Seeking an explanation for large staff turnovers in inner-city schools, the writer

analyzes the events occurring in two educational institutions. Both of these schools are matched according to age, the number of pupils in the school, the number of teachers on staff, and the socio-economic level of their immediate surroundings. After five years, School A had a significantly lower teacher turnover than School B. Original members of School A accounted for 85 percent of its total staff when the study was conducted. Only 44 percent of the original faculty was still present at School B (24, p. 1).

Explanation for this condition is directed partially to the initial hiring procedures utilized by each school, and secondly to the type of leadership evident within each. The principals of each school were appointed at approximately the same time. School A's principal, however, proceeded to select his teachers months before the school opened. School B's administrator, however, did little to pre-select her staff. Consequently, when the school year began, she had accepted a faculty obtained largely through traditional procedures (24, p. 2).

From the beginning, School A's principal sought to create a cooperative atmosphere within his school. Teachers participated in formulating the objectives and other policies of the school. Potential staff personnel who did not agree with the intended policies of the school did not join the faculty. School B's administrator stressed a high degree of hierarchical authority. School objectives and procedures were

established by the principal without teacher consultation. Because staff members at this school were kept unaware of the developments within their situation those who did not agree with the administrator's views could discover this incongruity only after they had agreed to join the organization (24, p. 2).

Although a limited study, this evidence demonstrates that schools which are able to foresee potential problems are more readily able to adapt to these problems in a successful manner. Those institutions which tend to handle problems after their occurrence appear to be less successful in handling the difficulties. The principal in either of the above cases, has a significant effect in establishing school structure and consequently the determination of its ultimate success.

Maximum Opportunities for Self-actualization. A healthy organization provides its members with opportunities to express their full potential. In return for outstanding performance and creativity, the school gives them a sense of satisfaction and a chance to further utilize their talents.

Every person has certain need deficiencies. People tend to have five basic needs. Going from lower order to higher order needs, these are security, social need or belongingness, esteem, autonomy, and growth needs which lead to self-actualization. Trusty and Sergiovanni indicate that

most schools provide only limited opportunities for members to self-actualize. Teachers seem to have strong unmet needs particularly related to esteem, autonomy, and self-actualization (31, p. 176). Differences in the degree of such deficiencies among educators exist depending on age, sex, and professional role.

Individuals between the ages of 25 to 35 appear to have the greatest need deficiencies. Educators in other age brackets do not experience such feelings of lack. Aspirations tend to increase, however, after the age of 45 years (31, p. 174).

Women teachers, furthermore, appear not to have the same needs as men. Only in the area of security do female need levels exceed their male counterparts. Dissatisfaction among males, according to the authors' explanation, may be greater because their concern with status and success in society and the way in which this is affected by their professional position (31, p. 174).

Administrators manifest higher levels of satisfaction than their teachers, possibly because they have greater opportunity to experience need fulfillment. Administrative discontent, where it exists, is most evident where limited opportunity is available for independent thought and action (31, p. 175).

Elementary teachers appear to be more satisfied with their professional role than are secondary teachers. A

decline in satisfaction levels is evident at the secondary level and increases among those teachers in a junior-senior secondary school situation (31, p. 175).

Differences between desired and actual need fulfillment can be used as an index of job satisfaction. The narrower the gap between felt need and fulfillment the greater is the likelihood that the individual will sense a feeling of job satisfaction. Dissatisfaction within an individual toward his work will probably heighten as the discrepancy between actual situation and need fulfillment is great (31, p. 169).

Such reasoning is supported, by the writers, March and Simon. They say:

...the lower the satisfaction of a given individual the more the search for alternative courses of action. This search leads to a higher expected value of reward. The incongruency between level of aspiration and the present state of affairs leads to increased job dissatisfaction (31, p. 176).

The principal is ideally situated to encourage and provide opportunities for teachers to develop their potential and grant suitable rewards for high quality performance and creativity. Gathercole, in discussing the professional development of staff supports this contention. He explains:

Professional improvement within the school itself requires an atmosphere in which teachers feel they have the support, confidence and respect of their principal. The onus, then, is on the principal to create this psychological climate without

which teacher growth cannot take place. The principal must recognize that teachers have individual differences, just as pupils have, and he must respect these differences. Furthermore, he must encourage each teacher to make his contribution to the total school program in his own way and to give him some freedom to experiment, to try out his own ideas in making the teaching program effective (12, p. 11).

III. MEASURES OF LEADERSHIP IN SCHOOL ORGANIZATIONS

The Leader Behavior Description Questionnaire (LBDQ).

Although evaluation of leadership can be obtained by a variety of rating measures, the Leader Behavior Description Questionnaire is, without question, the most widely used instrument in leadership studies (16, p. 18). Halpin and his associate identified two fundamental dimensions of leadership behavior by applying an earlier version of the LBDQ to an Air Force Study. The two factors were termed "initiating structure" and "consideration". Initiating structure refers to that behavior of a formal leader which delineates the relationship between himself and members of the work group, and establishes well-defined patterns of organization, channels of communication, and methods of establishing procedures. Consideration refers to behavior indicative of friendship, mutual trust, respect, and warmth, in the relationship between the leader and members of his staff (18, p. 86).

By use of factor analysis, thirty items were selected by the writer, which would test for these two dimensions in a leader's behavior. Of these items, fifteen were constructed to analyze the dimension of initiating structure; the other half were used to examine the dimension of consideration. The estimated reliability of each dimension was .93 and .86, respectively (18, p. 88).

Hence, the completed instrument is composed of a series of short descriptive statements which describe the ways in which leaders may behave. Members of the leader's work group are asked to read each of these statements and assign a score for each item. Scores can be totalled for each of the two areas and designated "high" or "low" for any given sample of leaders. Effective leaders are those who score high on both dimensions of leader behavior (18, p. 98).

Figure I illustrates the typology of leader behavior. Administrators in quadrant I are evaluated as highly effective --high on initiating structure and in consideration. Those in quadrant II neglect structure and emphasize consideration;

FIGURE I

TYPES OF LEADER BEHAVIOR

| | | |
|------------------------------|---|---|
| Initiating Struc- ture | IV Consideration (low) Structure (high) | I Consideration (high) Structure (high) |
| | III Consideration (low) Structure (low) | II Consideration (high) Structure (low) |
| | Consideration | |

and thus, are only partially affective as leaders. The leaders in quadrant IV show little consideration for human beings, but do formulate a well-defined organization. Finally those in quadrant III are classified as ineffective leaders. They are rated low both in initiating structure and consideration (20, p. 99).

From Halpin's work, a number of conclusions have been reached. These are:

- (1) both initiating structure and consideration are basic to leader behavior
- (2) effective leadership requires high scores in both dimensions
- (3) leaders are more concerned with establishing a well-defined organization and, subordinates emphasize the importance of consideration in leader behavior
- (4) leader behavior can affect changes in group attitude and group characteristics
- (5) only a slight positive relationship is evident between the way in which a leader should behave and the way in which he is perceived as behaving (20, p. 52).

Important as this test has been to educational research a number of criticisms have been put forth against it as an instrument. Griffiths cautions users against confusing perceptions with behavior. Halpin's research emphasizes

the study of leadership behavior; yet, the LBDQ records perceptions of behavior rather than the actual behavior (16, p. 18).

Hills protests that the LBDQ views leadership as being completely internal to the organization. He developed two additional dimensions relating to the "outside" of an organization and suggested they be included in any future use of the instrument (16, p. 18).

Finally, Charters questions the validity of instruments established, as was the LBDQ, from small-group research in bureaucratic settings, because in such environments, a school being a good example, many leadership functions are taken care of by means of the establishment of formal rules and procedures. The results of such operations, therefore, can not be attributed to the behavioral acts of any given person (16, p. 19).

Furthermore, the description of an administrator's department is sought from the perception of him by his subordinates. Theorists have questioned the validity of the LBDQ's methods of determining leader behavior - can one's followers accurately describe their principal's style of leader behavior? McKague (22, p. 32) and Brown (7, p. 63) are congruent in voicing a negative opinion on this point.

Subsequent research on the LBDQ led Stogdill to contend that the LBDQ's dimensions of initiating structure and consideration were not sufficient to explain adequately the observed variance in leader behavior. Consequently, a modified

version of the LBDQ, called the LBDQ-XII was designed by the researcher to help rectify some of the shortcomings present in the original form of this instrument (22, p. 31).

The basis of Stogdill's argument resides in his theory of role differentiation and group achievement. This concept views such factors as tolerance of uncertainty tolerance of member freedom of action, integration of the group, reconciliation of conflicting demands, predictive accuracy, and persuasiveness, as significant variables in analyzing leadership. Other behaviors such as role assumption, production emphasis, orientation toward superiors, representation of group interests, initiating structure, and consideration are included in the new design because of their prominence in earlier empirical research (7, p. 63).

The final format is based on twelve leader behaviors. Results from its administration again show two major types of leadership behavior emerging. These types are termed "system-oriented leadership" and "person-oriented leadership". They prove to be closely associated with goal achievement and group maintenance, respectively (22, p. 31).

Analysis of the data led Stogdill to depart from traditional views of leader behavior as being basically of two dimensions (ie. institutional or individual). Some leadership styles, he contends were conceptualized as being transactional. Emphasis is not placed on either the institution or the person. Rather, leaders classified as

being transactional attempt to find agreement between individual and organizational needs (22, p. 31).

Although valuable to leadership research, the LBDQ-XII retains certain weaknesses. Brown indicates that general inferences are difficult to imply from the instrument. This is partially due to the large number of sub-scales (12), having no evident ordering, which may be found in the format. Each sub-scale, moreover, purports to measure equally important aspects of leader behavior. The equality of such scales is dubious; Stogdill, according to Brown, did not test this assumption. Secondly, the sub-scale score does not necessarily represent the principal himself, but rather the average perception of his behavior by his staff. Hence, one can argue that observer bias is present in the responses and that distorted, rather than an accurate description of a leader's behavior is represented (7, p. 67).

Fiedler's Contingency Model.

Fiedler has developed a Contingency Model of leadership effectiveness which correlates variation in directive-permissive leadership styles with group performance. This is dependent (contingent) upon the level of group atmosphere within the group situation, the type of task being performed, and the degree of authority inherent in the leader's position.

The group atmosphere variable is of prime importance in the framework of Fiedler's model. Group atmosphere is

determined by asking the leader to rate his group on the basis of a series of bipolar adjectives arranged on a Likert-type scale. Summation of item scores yields a reliable and meaningful group atmosphere (GA) score. This score expresses how the leader feels about the group's acceptance of his leadership and his suitability to the role. As Fiedler explains:

The Group Atmosphere score, ...indicates the degree to which the leader feels accepted by the group and relaxed and at ease in his role (11, p. 32).

Initial discovery of group atmosphere as a mediating variable began when Fiedler determined that the more a psycho-therapist viewed his patient as being similar to himself, the better result he achieved. Less successful therapists saw their patients as being totally unlike themselves (11, p. 38).

Using these findings as a basis, the researcher next examined a number of high school basketball teams. It was assumed that leaders with considerable empathy would lead the most successful teams. Later analysis of statistical data showed significantly different results (11, p. 68). Leaders who had been chosen by their group and were described by them as being distant from the rest of their teammates, tended to head the most successful teams. Subsequent research on survey groups with formally appointed leaders revealed the same conclusions. Directive leaders, who were well supported by

their subordinates (ie. high group atmosphere) provided more effective leadership. Thus group atmosphere was considered to be an important factor in leadership effectiveness.

Reliance on using subordinates to measure group atmosphere has been dropped. Recent evidence indicates that leaders, often subconsciously, are quite sensitive to the atmosphere prevalent within their groups. Hence, leader ratings of this measure have replaced assessment by group members. Such measures have proved just as reliable and much more convenient to the researcher (23, p. 6). The questionnaire designed to gauge group atmosphere using leaders to do the rating is called the Group Atmosphere Scale.

Attempting to avoid some of the limitations present in the LBDQ, Fiedler used the above Contingency Model to measure leadership effectiveness.

The dimensions of leadership behavior and group atmosphere were tested by the Least Preferred Co-worker scale (LPC) and the Group Atmosphere Scale, respectively. Leaders were asked to rate their least preferred co-worker using the LPC test, on a Likert-type scale. Those who scored high on this instrument tended to be more permissive and considerate towards their subordinates. Low LPC leaders inclined to be more authoritarian and task oriented in their relations with others.

Two other dimensions were tested besides leadership style and group atmosphere. These dimensions seek to determine

the degree of authority inherent in the leader's position and the nature of the task performed. It is felt that all of the variables are essential in determining how effective an administrator's style would be in a given situation.

Predictions based on the above scheme, indicate that low LPC leaders were more effective in situations where they had considerable authority, a structured task to perform, and high group atmosphere. In those circumstances where a legitimate leader was involved in a low group atmosphere situation, group performance tended to be rated higher under a more permissive leadership style.

McNamara and Enns applied the above Contingency Model to school situations. Their findings supported Fiedler's investigations. They indicate:

The results imply that among principals who are well supported by their staffs, those who employ more directive styles, are likely to be more effective, but among those principals having relatively little staff support, the more permissive the principals, the more effective their leadership is likely to be (23, p. 7).

Partial similarities were reported by McKague. He sought to determine what style of leadership is most closely related to group performance. Using Fiedler's LPC test, he finds that those principals who score low on the LPC scale tend to be the most effective leaders. They are viewed as being dynamic and involving. In talking with individual

staff members, they appear to make worthwhile contributions to the discussion, while encouraging active participation from their teachers. They tend to be controlling and managing in their relationships with others and expect a high level of performance from them. Provided such behavior is acceptable to their staffs, this department is indicative of an effective leader. Teachers in such situations will tend to exhibit higher morale, greater satisfaction, and increased effectiveness ratings (22, p. 34).

As a result of these inquiries, it can be concluded that principals who demonstrate directive leadership are more effective provided they are supported by high group atmosphere ratings.

Executive Professional Leadership as a Measure of Leader Behavior.

Recently, the LPC, like the LBDQ, has received criticism from educational theorists. These critics feel that the LPC views leadership behavior unrealistically. It is consistent with tradition in viewing leadership in terms of polarized behaviors. Explicit characteristics of directive and permissive leaders are defined but nothing is said about those people who possess qualities which fall between the two extremes of behavior (11, p. 264).

The LPC differentiates leader behavior as being directive or permissive. Just what the high and low scores represent, however, is open to interpretation (21, p. 12). Fiedler,

the LPC's designer, admits that his test does not indicate the degree to which the leader position is high or low (11, p. 262). Results from the instrument, furthermore, do not relate with conclusions from the LBDQ-XII or the OCDQ--two important indicators of leadership quality (21, p. 13).

Lastly, the test instrument assumes that school personnel work together in performing their tasks. Although the trend in educational research appears to verify this assumption, it has not been confirmed definitely (21, p. 12).

Shortcomings in such instruments designed to determine characteristics of leader behavior, create considerable problems for those interested in studying leadership. One has to choose whichever tool he feels will best meet his design and accept the imperfections in these instruments.

Schmuck and Runkel in a recent study done in the Oregon school system, use a modified form of the Executive Professional Leadership (EPL) test as a measure of leader behavior. This instrument was originally designed and tested by Gross and Herriott (27, p. 10). It views leader behavior on a six-point Likert-type scale with a range from "always" to "never".

The EPL questionnaire measures the effort of a principal to improve the quality of his staff's performance. Since EPL refers to the principal's attempts to influence his subordinates, the instrument relies for assessment on the reports of teacher-observers.

Debate persists concerning the reliability of an instrument which uses teacher-observers to describe a principal's leader behavior.

Gibb, as well as Gross and Herriott, indicates that followers can identify the amount of influence that leaders exert on their subordinates. Gibb reported, on the basis of an experiment involving sociometric choice, that individuals in a small group having no traditions, could determine accurately which individual exerted the most influence on their activities. When these results were compared with reports from external observers the correlation was found to be approximately .80 (13, p. 881).

Wherry and Fryer indicated similar observations. Cadet Signal Corps officials could identify leadership, at the end of one month, with the same accuracy of prediction as officers who had been observing for a period of four months.

Gibb states:

There is good evidence that members of a group can identify reliably those persons who exert most influence upon them and that leaders defined in this way are closely correlated with leaders identified by external observers and by other criteria (13, p. 881).

Gross and Herriott, reported similar conclusions and say:

...it is highly unlikely that the teachers'

reports have been biased...and support our assumption that the teacher-observers were, in a relatively unbiased and accurate fashion, reporting leader behavior exhibited at different times and in different places (17, p. 26).

The latter writers did an intensive analysis for possible observer bias in EPL scores as part of their inquiry into a principal's executive professional leadership. It was reasoned, on the basis of other studies, that several reports by subordinates concerning the behavior of a common leader would vary. Female staff members, for example, in reporting on administrative behavior may tend to overrate their principal while male staff members may tend to under-rate their leader.

Variation in observer scores were attributed to two possible sources - among principal variance and/or among teacher variance. Certain selected characteristics of teachers - a teacher's sex, age, sex-age, interaction, educational level, and general job satisfaction - were thought possibly to influence teacher perceptions of leader behavior. The older the teacher, for example, the greater the chance of his adjusting to his principal's inadequacies and of reporting his behavior in more favorable terms. In accounting for principal's variances, Gross and Herriott conclude that even when that part of the variance attributable to characteristics of teachers is partialled out, one remains with the fact that one principal simply is different from another (17, pp. 218-227).

To obtain accurate analysis of variance in teacher-observer reports, the writers use a strategy which combine the above two possibilities. They compute the total variance evident in teacher-observer reports (V) and then estimate that portion of it which is associated with principals as leaders (V_p), with the personal characteristics of teacher-observers (V_t), with the principals as leaders after partialling out that variance associated with personal characteristics of teachers ($V_{p.t}$), and with the personal characteristics of teacher-observers after partialling out that variance linked with principals as leaders ($V_{t.p}$). The resulting ratio, it is felt, would be greater than unity if the known variation in teacher reports was more attributable to variation in the principals than in teacher-observer characteristics (V_p/V_t). If variation in the principals was independent of variation in characteristics of teacher-observers, the ratio of partial variances ($V_{p.t}/V_{t.p}$) would exceed unity. If the latter ratio was less than unity, the validity of teacher-observer reports would be questionable (17, p. 225).

Two assumptions are made in this analysis. First, it is assumed that reports by teacher-observers on the behavior of different administrators can not be considered as a random sample from a common population. Unlike many previous studies, the sample population used by Gross and Herriott included both male and female principals. To avoid any possible confusion concerning final results, separate findings for schools having

male principals and schools having female principals are made. Secondly, it is assumed that personal characteristics of teachers do influence their reports. Independent examination of each of these assumptions indicate resultant F-ratios significant at the .05 level. Thus, portions of the total variance attributed to principals as leaders and the characteristics of teacher-observers were both statistically significant (17, pp. 227-229).

Once empirical support for the above assumptions is confirmed, the authors seek to compare the variance attributable to the principals with that attributable to the characteristics of teacher-observers. V_p is 260 and V_t is 46, in schools administered by male principals. In schools with female principals, V_p is 311 and V_t is 48. The ratios V_p/V_t are 5.7 and 6.5, respectively. Thus, variance associated with teacher characteristics is considerably less than that variance attributable to principals as leaders (17, p. 229).

Gross and Herriott show further analysis to examine the effects of covariance of these two sources and report that schools led by male principals show $V_{p.t}$ of 248 and $V_{t.p}$ of 34. The ratio $V_{p.t}/V_{t.p}$ is 7.3. In schools administered by female principals, the ratio of partial variance is 10.7 (17, pp. 232-233). The writers conclude that teacher EPL reports are valid measures of leader behavior. Whether schools have male or female principals, the independent effects of these individuals are great when

compared with the effects of teacher-observer characteristics.

Observed Similarities Between Executive Professional Leadership and Fiedler's Contingency Model.

Gross and Herriott's executive professional leadership concept is similar to Fiedler's Contingency Model particularly as they relate to group atmosphere and morale. There is much evidence to support this conclusion.

One of the major objectives of the Gross and Herriott study was to examine the effects that the elementary principal's EPL had on his school's performance. To determine this relationship the researchers chose three criteria which in their judgment are meaningful in the assessment of the effectiveness of a principal's leadership. These criteria are staff morale, professional performance of teachers, and student learning. They assume that the leader's ability to influence his staff in these areas is affected by the professional staff's demand for autonomy in those matters of concern to them and by heavy demands on the principal's time as a result of routine administrative and clerical duties.

The more intense and persistent the last two obstacles are, the less able a principal is in exerting a positive influence on his staff's performance. As Gross and Herriott state:

...those conditions /i.e. staff resistance/ that perpetuate or accentuate the postulated blocks

to professional leadership will serve to decrease EPL; whereas conditions that reduce the obstacles or permit administrators to overcome them will serve to increase it (17, p. 100).

Emphasis is made by the authors on the differences between theoretical administrative problems as presented in administrative training programs and the complexities of organizational reality. The two are far from being synonymous.

During the administrative training program the neophyte internalizes a concept of his future role. This internalization process provides him with a set of standards from which his leadership role will evolve. Presumably, according to researchers, these standards will stress his obligation to improve his teachers' performance qualities. Possessing a set of standards and trying to carry them out in an actual organizational setting, poses some problems.

The chief of these trials for the educational administrator is the growing desire for increased professional rights among teachers. They too have completed specialized training at a university: graduation from teacher training accords them a degree of competence to carry out their assigned duties in an essentially autonomous manner. Employment of the new graduate by an educational system further indicates provisional approval of their credentials. Full acknowledgement of their teacher capabilities is recognized by district administrative officials after successful completion of the

probationary period. Teachers who have been accorded full professional status may resist attempts by the principal to influence their performance. They may view such attempts as encroachment upon their professional rights (17, pp. 100-101).

The question of administrators seeking to overcome leadership blocks is closely associated with Fiedler's concept of group atmosphere. Gross and Herriott state that a successful leader continuously tries to improve the quality of his staff's performance. In doing so, he frequently has to overcome teacher resistance to his leadership if he is to obtain his objective. If his leadership is accepted by his staff members, these blocks will be reduced. His impact then, on organizational members will be increased. Leadership behavior, perceived as being unacceptable to staff personnel, will serve to increase teacher resistance to professional leadership. In this way the impact of a principal on his organization will be correspondingly reduced.

According to Fiedler's concept of group atmosphere, administrators who display a more directive style of leadership, and who have the support of their subordinates, are likely to be most effective. Leaders having relatively little staff support, and exhibiting a directive leadership style, will be less effective. In both instances, the degree of group acceptance or support of an administrator's leadership behavior determines leader effectiveness.

Such reasoning, as evident in the above discussion, is supported in fields other than education by the authors Tannenbaum (30, p. 309) and Blau and Scott (4, p. 153). In essence, each of these theorists states that the more influence a leader has over his subordinates, the greater is the likelihood of his overcoming obstacles which prevent him from achieving an effective organization.

The study by Gross and Herriott concludes that there is a positive relationship between an elementary principal's EPL and staff morale, professional performance of teachers, and student learning within his school (17, p. 151).

Such findings are important particularly when comparing the similarities between staff morale and group atmosphere. The writers analyze the stated relationship between EPL and the three dimensional criteria of organizational effectiveness. Questions are raised concerning the relationship of EPL to professional performance and the effects of teacher morale on this relationship. The researchers feel that possibly principals influence teacher performance by first affecting their morale. This assumption is tested by first correlating the latter two variables. It was expected, on the basis of research in other fields, that productivity would increase with greater morale. The writers assumed, further, that teachers typically accept the educational goals of their principals. The resultant relationship between teacher performance and morale is highly significant ($r = .71$). It

means that the assumptions made by the theorists are correct. The existence of high morale among staff personnel can lead to greater teacher performance (17, p. 52).

In their study on staff leadership in public schools, Gross and Herriott indicate that with morale found to be related positively to teacher performance, and EPL related to both, the investigation of morale as being a possible mediating variable is concomitant. In this investigation the effects of teacher morale are partialled out, and the remaining two variables are correlated. A correlation coefficient of .36 originally has been determined between these two variables without teacher morale being held constant. Using the above procedures, however, the relationship between the two variables falls to .01. It is assumed, therefore, that if teacher morale does link, the two variables as evidence suggests, EPL would influence teacher performance by first affecting their morale (17, pp. 53-54).

Educational research by McKague shows that directive leadership on the part of a principal in a structured situation is a more effective form of leadership, providing that a high level of group atmosphere exists within his school. Higher morale, greater satisfaction, and increased teacher performance qualities are associated with such department (22, p. 34).

Leader influence on teacher performance, as shown by the above examples, is related to teacher acceptance of a

principal's leader behavior. Increased teacher output is more likely in a situation where staff personnel support the principal's educational objectives. In schools where teachers do not wholeheartedly support their principal's educational goals, increased teacher performance will be less likely to occur.

Thus, directive leadership, contrary to widespread opinion, does not have, under certain circumstances, a negative effect on a group's performance. The greater the executive professional leadership of a principal, the greater the likelihood that he will have a "productive" school, provided a favorable group atmosphere exists amongst his teachers. Situational contexts, therefore, cannot be ignored in leadership studies.

Schmuck and Runkel using a modified version of the EPL test, reach similar conclusions. A principal who scores high on EPL, would have the following characteristics: he would be easier to get along with; he would make better decisions; he would help his staff more with their own problem-solving; he would conduct meaningful faculty meetings and conferences; and he would be more apt to regard his teachers as professionals (27, p. 11).

A variety of other studies which have examined portions of the above research tend to support their conclusions.

Ziolkowski, reporting on the supervision of instruction, determines that schools which are rated superior tend to have

principals who are described as being hard workers, "very much interested" in teachers as individuals, seek a situation which allows teachers to have a greater degree of participation in decision-making, and know what goals their schools are working toward (33, p. 3).

A similar conclusion is reached by Erickson, Hills, and Robinson in an investigation of the Vancouver School District. Superior schools tend to be more flexible and more acceptable to innovative ideas. Their administrators are depicted as being relatively superior, aware of, sensitive of and sympathetic toward, teacher viewpoints; and they have earned the respect and confidence of their staff. They look upon teachers as professional equals and are willing to ignore board policy when they feel it is antithetical to the betterment of their school (8, p. 19).

Executive Professional Leadership and School Size.

In their study on EPL, Gross and Herriott find that principals of schools with 600 or less pupils tend to exhibit greater executive professional leadership, a factor which is found to be statistically significant. Reasoning suggests that administrators in smaller schools have greater opportunity to develop understanding of the problems their schools confront. At the same time, the smaller enrollment allows them greater occasion for interaction with teachers, students, and parents in their school communities (17, p. 85).

Because of this finding, the following study is restricted to elementary schools whose student population number approximately 300 pupils. It is felt that the effects of EPL on the criterion of organizational health will be more evident in schools of this size and larger.

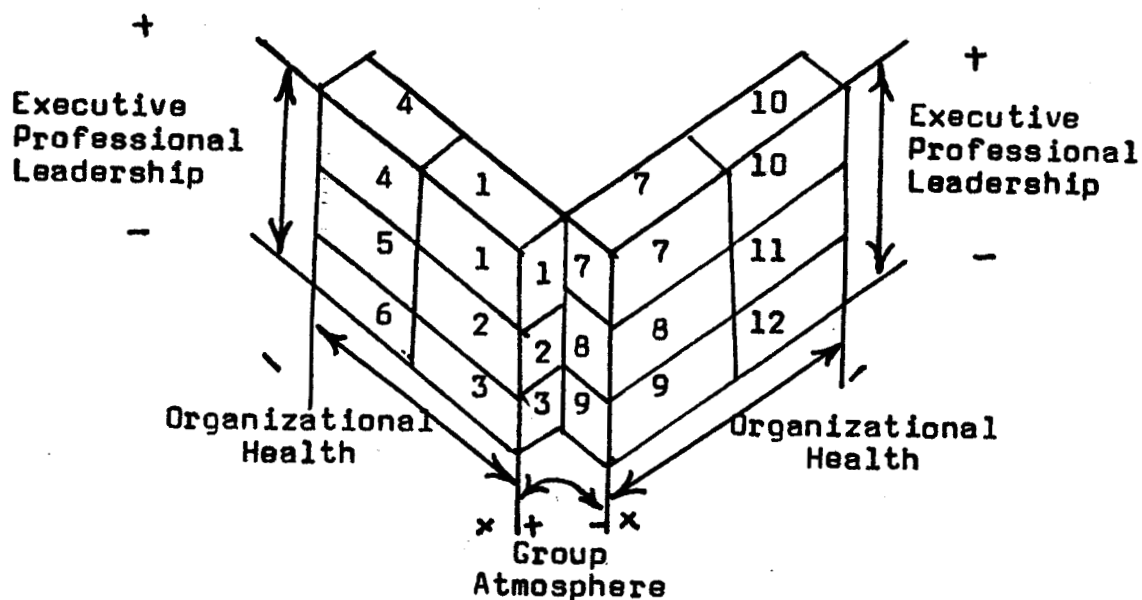
Summary

The fundamental assumption here is that a principal's executive professional leadership is related to his school's organizational health, contingent upon the level of group atmosphere within his school. It is assumed that groups which exhibit high group atmosphere and whose principals display high executive professional leadership will most likely comprise the personnel of schools with high organizational health. Schools having low organizational health will tend to be those which have groups exhibiting low group atmosphere and having principals who display high executive professional leadership. Groups which exhibit low group atmosphere will tend to be involved in schools high in organizational health, if their principals exhibit low executive professional leadership. Groups displaying high group atmosphere whose principals exhibit low EPL will tend to be involved in schools with low organizational health.

Clarification of the relationship between EPL, group atmosphere, and organizational health expressed in this study, can be shown by using a three-dimensional drawing.

First, the organizational health dimension is split into high and low classifications. The executive professional leadership dimension then can be divided so that continuum ranging from very positive (high) to very negative (low) is produced.

FIGURE II
A MODEL FOR THE CLASSIFICATION OF
ORGANIZATIONAL HEALTH STRUCTURES
IN SCHOOLS



The final model comprises a 12-cell rectangle containing groups which can be judged on their possession of a measurable degree of the above stated variables. Cell 1, for example, will be high in all three dimensions. Leaders that could be categorized in this area will have high EPL, will

TABLE I

CLASSIFICATION OF ORGANIZATIONAL HEALTH

SITUATIONS ON THE BASIS OF

THREE DIMENSIONS

| Cell | Executive Professional Leadership | Group Atmosphere | Organizational Health |
|-------------|--|-----------------------------|----------------------------------|
| 1 | High | High | High |
| 2 | Moderate | High | High |
| 3 | Low | High | High |
| 4 | High | High | Low |
| 5 | Moderate | High | Low |
| 6 | Low | High | Low |
| 7 | High | Low | High |
| 8 | Moderate | Low | High |
| 9 | Low | Low | High |
| 10 | High | Low | Low |
| 11 | Moderate | Low | Low |
| 12 | Low | Low | Low |

have high group atmosphere situations, and will lead schools rated high in organizational health. Cell 2 will categorize leaders having moderate EPL, high group atmosphere situations, and schools rated high in organizational health. The characteristics of groups in each cell are listed in Table I.

IV. DEFINITION OF TERMS

Organizational Health

This term is used to describe the effectiveness of a total school. A healthy school can be defined as having an open system, displaying a realistic awareness of its present position and future goals, and maintain sufficient problem-solving mechanisms to cope with a changing environment.

Questions one to twelve of the Questionnaire on Organizational Characteristics measures this dimension. (See Appendix B).

Open System

This term refers to those educational organizations which have the ability not only to interact successfully with their environment, but do so on a continuous basis. At any time immediate problems may be handled in an ineffective manner; but over a long period, the organization will effectively contend with its environment and continue to strengthen and improve its capabilities for coping with problems as they arise.

An Adequate Goal Focus

This is descriptive of a condition of a healthy school where the principal, teachers, and students are thoroughly aware of their schools goals and direct their efforts toward the accomplishment of these goals. Thus, their activities are purposeful and goal oriented.

This variable is measured by questions one and two in the Questionnaire on Organizational Characteristics. (See Appendix B).

A Co-ordinated Communication System

This phrase refers to the effective communication which exists between the administrator, teachers, and students within a healthy school and the community it serves.

Questions three and four in the Questionnaire on Organizational Characteristics measures this variable. (See Appendix B).

An Equitable Decision-making Structure

This refers to the reasonable distribution of shared decision-making existing between the principal, his staff and students within a healthy school. Decisions are the result of collaboration between members rather than coercion.

Questions five and six in the Questionnaire on Organizational Characteristics measure this variable. (See Appendix B).

Efficient Utilization of Human and Material Resources

A condition within a healthy school whereby teachers are assigned instructional tasks appropriate to their training and experience. Moreover, they have available to them sufficient material resources to perform their tasks.

This variable is measured by questions seven and eight in the Questionnaire on Organizational Characteristics. (See Appendix B).

Adaptability of a School to its Environment

This phrase refers to the positive reaction of the healthy school to new educational ideas, although the school will not unthinkingly allow these ideas to determine its behavior. Its members give careful consideration to all major innovations before they are introduced within the school.

This variable is measured by questions nine and ten in the Questionnaire on Organizational Characteristics. (See Appendix B).

Problem-solving Mechanisms

This phrase refers to that area within the healthy school of well-developed structures and procedures for perceiving the existence of problems, for analyzing them, for deciding on and implementing solutions, and for evaluating their effectiveness.

Question eleven in the Questionnaire on Organizational Characteristics measures this variable. (See Appendix B).

Maximum Opportunities for Self-actualization

This phrase refers to the condition within the healthy school which provides each of its members with an opportunity to express his potential. In return for outstanding performance and creativity, the school gives him a sense of satisfaction and a chance to further utilize his talents.

This variable is measured by question twelve in the Questionnaire on Organizational Characteristics. (See Appendix B).

Group Atmosphere Score

This term refers to the degree of acceptance which the group accords its leader.

The score is derived from questions 37 through 46 in the Group Atmosphere Scale. (See Appendix C).

Executive Professional Leadership Score

This term refers to the effort of a principal to improve the quality of his staff's performance, and is dependent on the internalization of his role.

The score secured from questions 13 through 36 in the The Principal of This School questionnaire. (See Appendix B).

Organizational Characteristics Score

This term indicates the measurement of a school's organizational health.

It is derived from questions one through twelve in the Questionnaire on Organizational Characteristics. (See

Appendix B).

V. DELIMITATIONS, LIMITATIONS, AND ASSUMPTIONS.

Delimitations

The study restricted itself to four intra-organizational variables: the principal's executive professional leadership, the group atmosphere within the school, the school size, and the degree of organizational health found in schools analyzed in terms of a seven-dimensional organizational health model. No effort was made to determine the age, sex, years of teaching experience et cetera of respondent teachers. Nor was any attempt made to determine if any extra-organizational variables affected the individual participant schools. It is recognized that these variables could have influence on those teachers and schools involved in the inquiry. These variables, however, were felt to be outside the scope of this investigation.

Lastly, only British Columbia elementary schools with ten or more full-time staff members were used in the study.

Limitations

Only selective variables were used in the research study. These variables do not account for all of the facets affecting teachers, administrators, and schools. Nothing, for example, was done to determine a teacher's employee orientation.

This certainly would have a bearing on the way in which staff members reacted to administrative leadership.

Secondly, the study was based on the assumption that the principal was the "real" leader of his school. No effort was made to verify this premise in any of the participating schools. Others in administrative positions, and sometimes informal leaders within the school may exert considerable influence on the operation. Furthermore, the questionnaire on Organizational Characteristics does not measure all aspects of organizational health, but limits itself entirely to an analysis of those dimensions thought to be important to all elementary schools.

Data obtained from this study should be read with the view that the generalizations made refer only to the population sampled. Inferences about schools and leaders outside the study's population should be made with caution.

Assumptions

A basic assumption of this inquiry is that accurate measurement of a principal's leadership behavior and his school's organizational health can be obtained by means of teacher responses to a questionnaire.

It has already been stated that some researchers question the soundness of an instrument that uses teacher-observers as a source of information concerning some variables. Certainly their arguments have some merit. Distortion of respondent perception of an individual is not an uncommon

occurrence. The credibility of such arguments is reduced when one considers other aspects of the issue. Perception does constitute reality for the perceiver. Communality of perception among organizational participants, moreover, can be measured statistically through an examination of the amount of variance in perception.

It is assumed in this study that the selected sample is representative of the population, and that the instruments used in the investigation are valid and reliable measures of the study's major concepts. It is understood, further, that these instruments have been answered honestly by the participants.

Finally, it is presumed that the assumptions underlying the statistical procedures employed in this study were met.

VI. SUB-PROBLEMS AND HYPOTHESES

Problems and hypotheses that have been formulated from the above discussion are as follows:

Sub-Problem 1.0

Do principals having high EPL and high group atmosphere situations have healthier organizations than those having low EPL in low group atmosphere situations?

The analysis provided in Chapter Two suggests that leaders who exhibit high executive professional leadership have schools that are more productive (in reference to McKague's study) provided they have favorable group atmosphere situations. In these schools,

staff morale, professional performance of teachers, and student learning tend to be high.

Evidence from McKague's investigation indicates that those administrators who do possess a dynamic and involving leadership style and whose leadership is perceived as being acceptable to teachers, tend to be associated with schools having high morale, great satisfaction, and high effectiveness ratings on the part of their teachers (22, p. 34). Further, research by McNamara and Enns indicates that permissive leadership in situations where there is a favorable group atmosphere results in ineffectiveness on the part of the administrator within his school (23, p. 7).

It may be reasonable to suggest that those principals whose staffs are perceived displaying high group atmosphere, and who exert a high degree of EPL will have a relatively strong influence on the seven-dimensional model of organizational health. In addition, principals who exhibit low EPL and whose staffs display high group atmosphere will administer schools rated relatively low in organizational health.

Hypothesis 1.1 It is hypothesized that principals who exert high executive professional leadership in a high group atmosphere school will administer schools rated high in organizational health.

Hypothesis 1.2 It is hypothesized that principals who show high executive professional leadership in a high group

atmosphere school will administer schools rated low in organizational health.

Hypothesis 1.3 It is hypothesized that principals who exhibit low executive professional leadership in a high group atmosphere school will administer schools rated low in organizational health.

Hypothesis 1.4 It is hypothesized that principals who display low executive professional leadership in a high group atmosphere school will administer schools rated high in organizational health.

Sub-Problem 2.0

Do principals in low group atmosphere schools who display high executive professional leadership have more healthful organizations than those in similar situations who display low executive professional leadership?

McKague in a study comparing the relationship between leadership behavior based on Least Preferred Co-worker scores and Organizational Climate Description Questionnaire dimensions of teacher behavior, finds that there is no significant correlation in schools with low group atmosphere. Only in those schools where the principal's leadership is classified as directive and managing, and which rate high GA (group atmosphere) does the correlation prove significant (22, p. 33).

Similar results were found when the LPC test is

correlated with three other teacher variables. These are: teacher evaluation of principal effectiveness, evaluation of school effectiveness, and job satisfaction. Again, no significant relationships are found between LPC scores and these teacher variables in low GA schools. Significant correlations are found between all three variables in high GA schools (22, p. 33).

Implications from this investigation can be applied to this sub-problem. Positive influence on staff members by their principals is evident in situations where the administrator scores low on the LPC scale and leads a school which is high on GA. The relationship between LPC scores and teacher behavior variables is still, however, relatively vague in low GA schools.

It may be suggested, therefore, that a principal's influence on the organizational health of his school in low GA organizations is somewhat ill-defined. Hence, a principal in a low GA school who exhibits high EPL and administers a school high in organizational health emerges as a possibility.

Hypothesis 2.1 It is hypothesized that principals who display high executive professional leadership in a low group atmosphere school will administer schools rated high in organizational health.

Hypothesis 2.2 It is hypothesized that principals who display

high executive professional leadership in a low group atmosphere school will administer schools rated low in organizational health.

Hypothesis 2.3 It is hypothesized that principals who exert low executive professional leadership in a low group atmosphere school will administer schools rated high in organizational health.

Hypothesis 2.4 It is hypothesized that principals who exert low executive professional leadership in a low group atmosphere school will administer schools rated low in organizational health.

A thorough discussion was presented earlier in this chapter (ante, pp. 70-72) which theoretically compared the relationship between high, moderate, and low ratings of executive professional leadership and organizational health dependent upon group atmosphere. No hypotheses were designed in this study, however, to test the relationship between moderate executive professional leadership and organizational health under high or low group atmosphere situations. Since this report was an initial analysis into the field of organizational health, it was decided only to measure executive professional leadership on a high, low continuum. Chapter IV, though, will discuss the differences between high, moderate, and low executive professional leadership behavior and its relationship to organizational health.

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CHAPTER III
RESEARCH METHODOLOGY

I. DATA REQUIRED

To secure the necessary information to test the generated hypotheses, it was necessary to collect data on the organizational health of elementary schools, data on the executive professional leadership of elementary principals, and data on the group atmosphere of each school.

II. INSTRUMENTATION

Organizational Health Scale

The instrument used to measure organizational health in elementary schools was designed especially for this study and for purposes of administration to teachers was given the relatively colorless title, Questionnaire on Organizational Characteristics of Your School. Organizational health was conceptualized as encompassing certain functional requirements present within school organizations. The existence or absence of these requirements at random time intervals would be important in determining whether a school exhibited high or low degrees of organizational health. Based on an article by Robinson, the essential properties of a healthy school are taken to be:

- (1) an adequate goal focus
- (2) a co-ordinated communication system,

- (3) an equitable decision-making structure
 - (4) efficient utilization of human and material resources,
 - (5) a school autonomous within its environment, yet adaptive to environmental influence
 - (6) existence of adequate problem-solving mechanisms, and
 - (7) maximum opportunities for self-actualization
- (4, pp. 9-11).

To measure each of these characteristics, precise definitions of organizational health variables had to be formulated. Items were then designed to measure these characteristics along a Likert-type scale. Resultant items were put together in the form of a questionnaire and respondents were asked to assess each statement with one of five comments; the five comments being "very frequently or always true," "often true," "occasionally true," "seldom true," or "very rarely or never true."

Construction of a reliable and tested questionnaire on organizational health using pragmatic validity procedures was considered beyond the scope of this project. Attempts were made, however, to determine the relationship between items contained in the instrument and significant findings are presented in a later section of this chapter.

The Executive Professional Leadership Instrument

The executive professional leadership of elementary

principals was measured by a section of the total questionnaire entitled, The Principal of This School. It was felt advisable to omit the phrase "executive professional leadership" in the title to minimize the possibility of teachers (observer-respondents) making any connotative judgments.

The instrument used to measure the executive professional leadership of principals, nevertheless, was basically the questionnaire originally developed by Gross and Herriott as part of a large scale research inquiry into leadership in American public schools (2, p. 14).

The Executive Professional Leadership Scale along with other instruments used in the larger research, was developed by Gross and his staff in a number of stages. Since this scale was part of a larger study, portions of the preliminary work for the larger project are reviewed here to include description of the early development phases of the EPL Scale.

First, an extensive review of background literature available, was undertaken and a number of items thought appropriate to the main study were derived from the review. Preliminary pretesting of the instrument's rough draft to be used in the main study was done by interviewing seventy-five school principals from a large metropolitan area in the United States (2, p. 15).

Final pretesting of this instrument was done using eight administrators from two large American urban centers. Each was interviewed for approximately eight hours, and a

record kept of the length of time it took him to complete each section of the schedule. From such efforts, major modifications in the questionnaire were made and interviewing techniques refined.

Since the executive professional leadership study was developed as part of a larger National Principalship Study, the target population for the two projects was identical. It was decided the population would be those supervising principals in cities of 50,000 or more people. These principals were then stratified on the basis of geographical region, system-per-pupil expenditure, and size of city. A cluster sampling procedure intended to limit the population tested to a five per cent sample, reduced the original number of principals to 508 and the number of cities selected to 41 (2, pp. 16-17). This sample included 189 elementary schools.

School superintendents in each of these cities were contacted by telephone to explain the main study's objectives and to seek their cooperation. It was ensured that the sample schools would vary both as to level and socio-economic status of population. Schools in each community were classified by the participating districts according to whether they were elementary, junior high, or senior high; and by the socio-economic position of their populations. Excluded from the sample were teaching principals and principals supervising more than one building.

School superintendents from participating districts were given a number of schedules to complete. Among these tests was the question whether they would allow subordinate staff members to be contacted directly by members of the research group. Forty of the forty-one agreed to cooperate.

The same question was asked of administrators in each school: of the 189 participating elementary schools, fourteen administrators refused to allow their staffs to be contacted directly.

Consequently, 175 schools in 40 large school systems formed the basis of the smaller EPL investigation (2, p. 22).

A 21-page Teacher Questionnaire (which included the EPL Scale) was prepared after analysis of data received from principals in the previous meetings. The questionnaire was mailed to a random sample of ten teachers in each of the 175 participating elementary schools. Teachers were asked to give certain background information, to complete a series of items that dealt with their definition of the principal's role and of their own, and to act as observers of their principal's behavior. Follow-up letters were sent to all teachers who had not returned the questionnaire after a given length of time (2-4 weeks) (2, p. 19).

The main concept behind the EPL investigation is to determine the efforts of a principal to conform to a definition of his role that stresses his obligation to improve the quality of his staff's performance (2, p. 22). Earlier review

of literature on the subject, produced eighteen items about a principal's behavior which were thought to define his efforts to conform to the author's concept of executive professional leadership. The eighteen statements were arranged in questionnaire form as part of the Teacher Questionnaire in the National Principalship Study. Teacher respondents were asked to assess each statement of the EPL Scale in one of six ways: "always," "almost always," "frequently," "occasionally," "almost never," and "never." Approximately 75 per cent (1,303) of the original 1,750 questionnaires mailed to elementary teachers were returned in usable form (2, p. 23).

Reliability and validity of the EPL instrument. To obtain a scale which would combine the above teacher scores into a single, stable, summary score, a form of Guttman scaling was utilized. Such a procedure reduces the information from a number of items to a single score. This could then be used to define each principal's position on the EPL scale.

The responses from a random sample of one-fifth of the total number of teachers who completed the questionnaire, were subjected to an item-analysis. Final results were measured using a coefficient of reproducibility test. The outcome of this statistical analysis of the EPL Scale was $r = .978$ (2, p. 24). This high correlation finding indicated the instrument's reliability.

Gross and his staff, did an extensive analysis of teachers as observers of a ~~superordinate~~ superordinate's behavior (ante,

pp. 59-62) in an attempt to determine the instrument's validity. Results supported the validity of teacher EPL reports (2, p. 233).

Group Atmosphere Scale

This instrument was completed by the principal to measure the group atmosphere present within his school. Group atmosphere (GA) is an indicator of the degree to which the leader feels accepted by the group and relaxed and at ease in his role (1, p. 32).

McNamara and Enns found group atmosphere to be an important mediator of principal effectiveness. They note that it was independent of directive leadership style. Neither directive leadership nor group atmosphere by themselves, create an effective school. They must operate simultaneously. For example, the researchers note that school effectiveness ratings by system personnel, were found to be highly correlated with staff ratings of school effectiveness, provided there existed high group atmosphere within the school. Such GA conditions prove conducive to fostering high satisfaction among teachers, which was found to be positively correlated with teacher ratings of principal effectiveness. Where GA is low, teacher satisfaction did not relate to staff rating of principal effectiveness. Hence, the relationship of support is independent of either directiveness or effectiveness. Only when GA is properly conjoined with directive/permissiveness leadership can there be an effective support relationship

(3, p. 8). One may assume on the basis of these findings that GA, as indicated by the leader, is a reasonably reliable guide in determining the support a principal has amongst his staff.

The questionnaire consists of ten bipolar adjectives which are designed to measure a leader's perception of group atmosphere. Administrators are asked to rate their group on a one to eight basis, on items such as: friendly-unfriendly, satisfying-frustrating, supportive-hostile. The scores of each item are totaled and the resultant sum is a reliable indicator of group atmosphere.

Reliability of the group atmosphere scale.

A split-half reliability test was applied to the GA scale in Fiedler's Belgian Navy study. The reliability coefficient proved to be over .90 (1, p. 163). Further support of the scale's reliability was evident from this study. Naval personnel were divided into a large number of three man groups. One of the group's members was assigned to lead the others of his group through a number of tasks. A battery of questionnaires were administered to the participants, when each task was completed. From these questionnaires, conclusions were drawn about group reactions to the task and group processes. Among the instruments given to each of these groups was the group atmosphere scale. Examination of each individual's score on this instrument over successive trials, showed

consistently homogeneous ratings. When all the tasks had been completed over a three session period, tests on the inter-correlation between the group leader's three scores were found to be .76, .73, and .83 (1, p. 163).

Validity of the group atmosphere scale.

Examination of correlations between group members' scores and leaders' scores assessing group atmosphere indicated each group used different criteria in formulating their judgments. In each of the three tasks assigned to each group in the above study, the relationship between leaders' scores and group members' scores was fairly low (.35, .31, and .43). Fiedler felt that in real-life situations, group leaders learned how well they were accepted by their subordinates only after they had been in contact with them over long periods of time. In groups established on an ad hoc basis for short periods of time, reasoned the theorist, the leader does not have adequate time to acquire an accurate assessment of his group's support. The leader, in such situations, may rate his group on the basis of his own feelings toward the group. Fiedler concluded that this premise deserved greater study (1, p. 163).

III. THE PILOT STUDY

Purposes of the Pilot Study

The initial stage of this research consisted of a

limited pilot study undertaken in a junior-secondary school in the Greater Vancouver area in British Columbia. The pilot study was designed to serve two purposes. The first purpose was to determine whether the variables in the Organizational Health Scale developed by the writer (Appendix A) were inter-correlated.

The second purpose of the pilot study was to examine responses on both the Organizational Health and Executive Professional Leadership Scale. This checking was done as a precaution against possible ambiguities in phrasing items, particularly in the Organizational Health Scale, and other discrepancies that might otherwise go unnoticed.

Once a target school had been selected, certain procedures were followed which were meant not only to acquaint the members of the above school with the study, but also to assure them of the anonymity of their responses. The first step was to seek the principal's permission. An interview was held in which the study's objectives, design, and importance were outlined to him. Careful elaboration of how the questionnaires were to be handled and how the participants' responses would remain private was made.

Secondly, a meeting was held of those teachers who had taught under this individual for one year or longer. It was felt that these teachers would possess an adequate awareness of their principal's executive professional leadership and his school's situation in terms of organizational health.

First year teachers and those experienced teachers new to the school were eliminated from the survey. Again the study's objectives, design, and importance were explained. Guarantees were made to assure the participants of the anonymity of their responses.

Administration of the Pilot Study--Organizational Health Scale Phase

Each teacher participant in the above school was handed a questionnaire enclosed in a brown envelope (Appendix A). This questionnaire had three sections: Questionnaire on Organizational Characteristics of Your School, that is the Organizational Health Scale; Group Atmosphere Scale, and The Principal of This School, that is the Executive Professional Leadership Scale. The principal was asked only to complete that section of the questionnaire entitled, Group Atmosphere Scale.

Results. Usable returns were received from eighteen of the possible twenty-three teacher participants. Since the questionnaires had been precoded, the results were quickly processed electronically.

A correlation analysis was done on all columns. That portion of the findings dealing with the Organizational Health Scale is shown in Table II. The results tend to support the suggestion that those questions designed to test specific organizational health variables are positively and significantly

TABLE II

INTERCORRELATIONS BETWEEN OBSERVED
ORGANIZATIONAL HEALTH SCORES ON
THE ORGANIZATIONAL HEALTH
SCALE

(Respondents = 18)

| ITEM | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------|-------|--------|-------|--------|-------|-------|--------|-------|--------|--------|--------|-------|
| 1 | 1.000 | .714** | .433 | .308 | .408 | .365 | .460 | .213 | .612** | .482* | .482* | .401 |
| 2 | | 1.000 | .530* | .378 | .375 | .335 | .705** | .522* | .375 | .472* | .591** | .393 |
| 3 | | | 1.000 | .688** | .565* | .537* | .425 | .492* | .530* | .579* | .379 | .398 |
| 4 | | | | 1.000 | .378 | .388 | .284 | .526* | .661 | .655** | .297 | .470* |
| 5 | | | | | 1.000 | .559* | .235 | .174 | .375 | .394 | .157 | .229 |
| 6 | | | | | | 1.000 | .420 | .000 | .559* | .387 | .176 | .058 |
| 7 | | | | | | | 1.000 | .474* | .141 | .452 | .318 | -.067 |
| 8 | | | | | | | | 1.000 | .087 | .425 | .260 | .285 |
| 9 | | | | | | | | | 1.000 | .591** | .118 | .393 |
| 10 | | | | | | | | | | 1.000 | .329 | .552* |
| 11 | | | | | | | | | | | 1.000 | .552* |
| 12 | | | | | | | | | | | | 1.000 |

* Significant at the .05 level (two-tail)

** Significant at the .01 level (two-tail)

interrelated.

More specifically, variable I, adequate goal focus, was composed of items 1 and 2. Variable II, co-ordinated communication system, was composed of items 3 and 4. Variable III, equitable decision-making structure consisted of items 5 and 6. Items 7 and 8 composed variable IV, efficient utilization of human and material resources. Variable V, adaptive autonomy, consisted of items 9 and 10. Variable VI, problem-solving was item 11. Variable VII, self-actualization, was item 12.

The table shows the intercorrelations of all organizational health items. All variables intercorrelated significantly indicating that they are measuring the same concept. Hence, it was felt that the questions designed to examine each variable were testing the same thing. On this relatively limited data, it was decided that the scale was sufficient to identify differences in organizational health between schools.

Administration of the Pilot Study--The Executive Professional Leadership Phase

As indicated earlier, the Executive Professional Leadership Scale was included in the questionnaire along with the Organizational Health Scale and Group Atmosphere Scale. Examination of responses from all sections of the questionnaire indicated certain discrepancies apparent in the EPL Scale that had gone unnoticed.

Perusal of the items indicated that certain questions, which should show a positive and possibly significant correlation, revealed negative correlations. For example, it was felt that items 35 and 46 of the Executive Professional Leadership Scale should be positively correlated. Findings indicated, however, a negative correlation. Similarly, items 43 and 46 revealed a negative relationship, which it was believed should have been positive. Visual inspection of the questionnaire and these items in particular, disclosed that they and others had been coded backwards. Rather than eliminate them, it was decided that a special technique would be used to score these items in the final study. No discrepancies were found in other sections of the questionnaire.

The Complete Questionnaire

As a result of the procedures outlined in this chapter and the conclusions that were derived from these procedures, the following instruments composed the final questionnaire, which was sent out for completion to participants in the major sample. The instruments were, Organizational Health Scale (Organizational Characteristics of Your School), Executive Professional Leadership Scale (Principal of This School), and the Group Atmosphere Scale. A complete copy of the final questionnaire is found in Appendixes B and C.

IV. THE SAMPLE

The sample of schools chosen was a stratified random

sample from all British Columbia elementary schools with ten or more teachers. The basis of stratification was student population. Each school, in the sample, was assigned a number. A total of 446 elementary schools in the province was judged to support a staff of ten or more teachers. Actual information on the number of teachers per school in the province was not available. Hence, the figure given above must be considered a close approximation. Size of school staff had to be estimated on the basis of each elementary school's total pupil population. Based on the provincial teacher-pupil ratio, it was felt that schools with 300 or more students would have a staff of ten or more teachers. Naturally, due to the possible existence of special classes within a school, and other unknown teacher-student arrangements, the above figure could only be taken as an approximation. The method, however, proved quite reliable, as only one school with less than the minimum number of teachers (seven instructors) to carry out the survey's design, in a satisfactory manner, was included in the potential sample.

According to one authority, to be representative of the total population, a sample should encompass approximately ten per cent of the subjects included in that population (5, p. 121). Thus a total of 103 schools was chosen in an attempt to satisfy this criterion.

Since approval of the project had to be sought from the superintendents of those districts involved, a large number

of schools were chosen initially. One school district might contain five sample schools. Had approval of the study and permission to contact the principals of these institutions not been received, these schools were to be eliminated from the survey. One man's decision, therefore, had tremendous influence on the final outcome of this research. To reduce this effect as much as possible, a large number of schools from diverse districts were drawn randomly for the target sample.

Experimental Sample

Each school superintendent involved in the target sample, was sent a covering letter, a copy of the questionnaire, a two-page précis, and a list of those schools in his district which had been selected for use. The précis stated the study's objectives, defined its variables, and indicated its importance and relevance to the practicing educational administrator.

Once the superintendent had approved the study's design, an identical procedure to that outlined above, was followed with the principals. Each administrator was sent a covering letter, a copy of the questionnaire, and the same two-page précis which was sent to their respective superintendents.

Returns were received from forty-six of the seventy-two schools contacted. This represents 64 per cent of all questionnaires sent to the elementary principals involved.

As soon as permission had been given to conduct the study in a particular school, questionnaires were sent to its

teachers. Each instrument was individually packaged in a brown envelope that could be sealed by the teacher-respondent. It was felt that teachers, in this way, would be more assured of the anonymity of their responses. Enclosed with each questionnaire were two letters. One was a brief covering letter explaining the study's purpose, defining some of the simpler aspects of its variables, and giving direction as to what the survey hoped to accomplish. The second letter gave instructions on how to complete the questionnaire. To remove possible administrative influence on staff members, each principal was asked to choose one member on his staff to collect the completed questionnaires and return them by mail to the University.

Response from those schools who had agreed to participate in the study was high. Returns were received from forty-one of the forty-six schools. This represents an 89.2 per cent response. One return was received after the cut-off date (approximately four weeks from mailing), and it was not included in the experimental sample. Some schools, furthermore, replied, but indicated for various reasons that they were unable to comply with certain aspects of the survey's design.

Computer Analysis

The responses on each questionnaire were transferred to computer cards. Initially, two decks of cards were prepared; one containing organizational health and executive professional

leadership data, and the second deck containing information on the group atmosphere dimension. The computer program consisted of four types of analyses. They were as follows:

- (1) Correlation matrix for school scores on all variables of organizational health, executive professional leadership, and group atmosphere.
- (2) One-way analysis of variance between schools on (a) the seven variables of organizational health, and (b) the executive professional leadership variable.
- (3) Factor analysis of the seven organizational health variables.
- (4) ~~t tests~~ tests on the following variables: (a) difference in executive professional leadership scores between the high, moderate, and low scores of the range of leadership scores; (b) difference in group atmosphere scores between the high, moderate, and low scores of the range of group atmosphere scores; and (c) difference in organizational health scores between the high, moderate, and low scores of the range of organizational health scores.

V. SUMMARY

Instruments used in the final experiment to measure the study's variables, were found to be adequate. Certain analytical techniques had to be refined as a result of deficiencies observed in the described procedures. The sample chosen was a stratified random sample of British Columbia elementary schools. Finally, the statistical treatment of the data from these schools has been outlined.

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CHAPTER IV

RESULTS, ANALYSIS, AND DISCUSSION

I. INTRODUCTION

The central problem of this study was an investigation of the relationship existing in a sample of British Columbia schools between the executive professional leadership of elementary principals as perceived by teachers and the organizational health dimension of schools. In addition, a third variable, group atmosphere, was examined as a possible mediating influence on this relationship.

Chapter IV is devoted to reporting, analysis, and discussion of the results of this investigation.

II. ANALYSIS OF VARIABLE RELATIONSHIPS BETWEEN EXECUTIVE PROFESSIONAL LEADERSHIP, ORGANIZATIONAL HEALTH, AND GROUP ATMOSPHERE

Intercorrelations Between Executive Professional Leadership, Organizational Health, and Group Atmosphere Scores.

Gross and Herriott determined that a positive relationship existed between executive professional leadership and school effectiveness criteria of staff morale, professional performance of teachers, and pupil learning (2, pp. 150-151). The relationship between EPL and teacher performance, tended to be mediated by staff morale (2, p. 54). Evidence suggested that a principal influences teacher performance by first

affecting their morale. As discussed earlier (ante, pp. 62-67), Gross and Herriott's concept of school effectiveness and staff morale is closely associated with this study's organizational health and group atmosphere variables, respectively. Consequently, one may assume that the relationship found by the above researchers would exist in a similar fashion between Executive professional leadership, organizational health, and group atmosphere.

Findings. It was suggested in the first problem of this study (Sub-Problem 1.0) that principals who exerted high executive professional leadership and whose staffs had high group atmosphere would have considerable influence on the organizational health of their school. This reasoning implies that a relationship should exist between the three variables included in this investigation. The results of Table III only partially support the argument outlined above. Variables one through seven (organizational health) are positively and significantly interrelated with variable eight (executive Professional leadership). However, group atmosphere (variable nine) is not interrelated with any of the above variables.

Discussion. These findings indicate clearly, that group atmosphere is not interrelated with EPL and organizational health. It is, instead, independent of these two variables. Similar conclusions were drawn by McNamara and Enns. GA scores, they found, did not correlate significantly with LPC (Least Preferred Co-worker) scores. A principal's

TABLE III

INTERCORRELATIONS BETWEEN SCHOOL SCORES ON
 ORGANIZATIONAL HEALTH, EXECUTIVE PROFES-
 SIONAL LEADERSHIP AND GROUP ATMOSPHERE
 VARIABLES
 (Schools = 41)

| VARIABLES | I | II | III | IV | V | VI | VII | VIII | IX |
|-----------|-------|--------|--------|--------|--------|--------|--------|--------|-------|
| I | 1.000 | .966** | .949** | .938** | .966** | .966** | .975** | .978** | .073 |
| II | | 1.000 | .949** | .931** | .958** | .941** | .977** | .968** | .071 |
| III | | | 1.000 | .912** | .928** | .902** | .958** | .974** | .036 |
| IV | | | | 1.000 | .950** | .912** | .949** | .936** | .152 |
| V | | | | | 1.000 | .943** | .963** | .962** | .068 |
| VI | | | | | | 1.000 | .944** | .950** | .042 |
| VII | | | | | | | 1.000 | .978** | .110 |
| VIII | | | | | | | | 1.000 | .069 |
| IX | | | | | | | | | 1.000 |

** Significant at the .01 level.

directive leadership style was found to be independent of group atmosphere scores (4, p. 7). The reason for this relationship is, perhaps found in the principal's attitude toward his role.

An administrator who exerts high executive professional leadership will strive to facilitate and maximise the various dimensions of organizational health. His attitude and actions will magnify, to his teachers, the importance he attaches to these dimensions. One would reason, that his attitudes and beliefs would eventually be reflected in the attitude of his staff. They would begin to demonstrate indications of high group atmosphere. Thus, the principal exerting high EPL creates an atmosphere conducive to the development of high organizational health, which in its turn is not dependent upon group atmosphere.

Analysis of Observed Executive Professional Leadership and Organizational Health Scores Between Schools

Findings. The results shown in Tables IV and V indicate that there was a significant overall difference between schools on the Organizational Health (OH) and EPL variables. In all cases, the difference was significant well beyond the .01 level. In short, schools differed widely in executive professional leadership and in an adequate goal focus, a coordinated communication system, an equitable decision-making structure, efficient utilization of human and material resources,

TABLE IV
ANALYSIS OF VARIANCE OF SCHOOL SCORES
ON THE BASIS OF THE ORGANIZATIONAL
HEALTH VARIABLE
(Schools = 41)

| | Source | Mean Square | df | F |
|---|---------|-------------|-----|--------|
| Variable I: Adequate Goal Focus | Between | 10.63 | 40 | 3.62** |
| | Within | 2.93 | 465 | |
| Variable II: Co-ordinated Commu- nication System | Between | 12.53 | 40 | 4.48** |
| | Within | 2.79 | 465 | |
| Variable III: Equitable Decision- making Structure | Between | 14.95 | 40 | 4.20** |
| | Within | 3.55 | 465 | |
| Variable IV: Efficient Utilization of Human and Material Resources | Between | 7.75 | 40 | 3.53** |
| | Within | 2.19 | 465 | |
| Variable V: Autonomy with Adaptation to its Environment | Between | 6.57 | 40 | 2.09** |
| | Within | 3.14 | 465 | |
| Variable VI: Problem-solving Mechanisms | Between | 2.98 | 40 | 2.70** |
| | Within | 1.10 | 465 | |
| Variable VII: Maximum Opportunities for self-actualiza- tion | Between | 2.52 | 40 | 2.20** |
| | Within | 1.14 | 465 | |

** Significant at the .01 Level.

TABLE V
 ANALYSIS OF VARIANCE OF
 EXECUTIVE PROFESSIONAL
 LEADERSHIP SCHOOL
 SCORES
 (Schools = 41)

| | Source | Mean Square | df | F |
|---|---------|-------------|-----|--------|
| Variable VIII (Executive Professional) Leadership | Between | 1779.56 | 40 | 4.85** |
| | Within | 366.56 | 465 | |

** Significant at the .01 Level

adaptability to its environment, existence of problem-solving mechanisms, and maximum opportunities for self-actualization.

Discussion. In discussing the above results, a comment should be made on the usefulness of the Organizational Health Questionnaire as an instrument to measure organizational health in schools. The highly significant results are probably, in some part, a credit to this instrument's ability to discriminate between the concepts being measured.

Finally, the results confirm the applicability of the organizational health model to school organizations.

Analysis of Organizational Health Dimensions

Findings. A factor analysis was made of organizational health scores to demonstrate the instrument's reliability and construct validity. Secondly, it was utilized to test the proposition that organizational health in elementary schools is essentially a unitary, homogeneous concept.

The results in Table VI indicate that the seven dimensions of organizational health possess acceptable reliability. Kerlinger in a discussion of factor analysis, indicates that the communality of a test, or h^2 , is its common factor variance. Common factor variance (V_{CO}) forms part of a test's total variance. For example, the total variance of a test (V_t) is equal to its common factor variance, plus specific variance (V_{sp}), plus error variance (V_e).

$$V_t = V_{CO} + V_{sp} + V_e \quad (\text{equation 1})$$

TABLE VI
 FACTOR LOADING: VARIMAX ROTATION
 OF ORGANIZATIONAL HEALTH
 VARIABLES

| VARIABLES | Communality | Factor I |
|---------------------------------|-------------|---------------|
| I | .978 | .989 |
| II | .966 | .983 |
| III | .931 | .965 |
| IV | .929 | .964 |
| V | .963 | .981 |
| VI | .934 | .966 |
| VII | .979 | .990 |
| Eigenvalue | | 6.680 |
| % of Common Variance | | 100.00 |
| % of Total Variance | | 95.42 |

Common factor variances can be broken down further into other sources of variance. Such reasoning is plausible, if one thinks of the sums of squares of factor loadings of any test as being:

$$h_i^2 = a_i^2 + b_i^2 + \dots + k_i^2 \quad (\text{equation 2})$$

where a_i^2, b_i^2, \dots are the squares of the factor loadings of test i , and h_i^2 is the communality of test i . Since $h_i^2 = V_{CO}$, it follows that each source of variance attributing to a measure's common factor variance will equal one of the squares of the factor loadings of test i . To demonstrate this reasoning, one may take a hypothetical case where the V_{CO} is broken down into two sources of variance, A and B, with V_A as intelligence and V_B as reading ability. It follows, therefore, that $V(A) = a^2$ and $V(B) = b^2$. Other sources of variance might be found. The generalized equation for this operation is:

$$V_{CO} = V_A + V_B + \dots + V_K \quad (\text{equation 3})$$

Substituting in equation 1, one obtains:

$$V_t = V_A + V_B + \dots + V_K + V_{sp} + V_e \quad (\text{equation 4})$$

Dividing through by V_t , one finds a proportional representation:

$$\frac{V_t}{V_t} = 1.00 = \frac{\overbrace{V_A + V_B + \dots + V_K}^{h^2}}{\underbrace{\frac{V_A}{V_t} + \frac{V_B}{V_t} + \dots + \frac{V_K}{V_t}}_{r_{tt}}} + \frac{V_{sp}}{V_t} + \frac{V_e}{V_t} \quad (\text{equation 5})$$

where h^2 is the proportion of total variance that is common factor variance, r_{tt} is the proportion of total variance that is reliable variance, and $\frac{V_e}{V_t}$ is the proportion of total variance

that is error variance. Reliability of a measure is always, hence, greater than or equal to its communality (3, pp. 655-656). The reliability of each of the organizational health dimensions is, as indicated in Table VI, at least .920 or above.

Factor analysis is important, moreover, not only because it gives an indication of a measure's reliability, but also because it tests an instrument's validity. Common factor variance, for example, is defined as the variance of a measure that is shared with other measures. Kerlinger defines validity as "...the proportion of the total variance of a measure that is common factor variance" (3, p. 455). Thus one obtains:

$$Val = \frac{V_{co}}{V_t} \quad (\text{equation 6})$$

where Val is the validity, V_{co} is the common factor variance, and V_t the total variance of a measure.

Above it was stated that a measure's total variance is composed of common factor variance, specific variance, and error variance. This can be expressed by equation 1. Dividing this equation through by V_t , one can then mathematically derive proportions of total variance written algebraically as:

$$\frac{V_t}{V_t} = \frac{V_{co}}{V_t} + \frac{V_{sp}}{V_t} + \frac{V_e}{V_t} \quad (\text{equation 7})$$

Since the first term on the right, V_{co}/V_t is the right hand member of equation 6, validity can be seen as that part of the total variance of a measure that is not specific variance and not error variance. In the form of an equation, one obtains:

$$\frac{V_{co}}{V_t} = \frac{V_A}{V_t} + \frac{V_B}{V_t} - \frac{V_{sp}}{V_t} - \frac{V_e}{V_t} \quad (\text{equation 8})$$

Using the above hypothetical example, in which the common factor variance was composed of two sources A and B, or intelligence and reading ability, and adding the variance of A to the variance of B, as in equation 3 one obtains the equations:

$$V_{co} = V_A + V_B \quad (\text{equation 9})$$

$$\frac{V_{co}}{V_t} = \frac{V_A}{V_t} + \frac{V_B}{V_t} \quad (\text{equation 10})$$

Substituting this latter equation in with the mathematical definition of validity, expressed above in equation 6, one obtains:

$$Val = \frac{V_A}{V_t} + \frac{V_B}{V_t} \quad (\text{equation 11})$$

Since the total variance of a measure, as indicated, includes the common factor variance, specific variance, and error variance, one can substitute in equation 7 the equality of equation 10 and obtain the following:

$$\frac{V_t}{V_t} = \underbrace{\left(\frac{V_A}{V_t} + \frac{V_B}{V_t} \right)}_{r_{tt}^{h^2}} + \frac{V_{sp}}{V_t} + \frac{V_e}{V_t} \quad (\text{equation 12})$$

The first two terms on the right hand side of the equation indicate the communality of a measure and thus are associated with the measure's validity. The first three terms, indicated by r_{tt} , are associated with the reliability of a measure (3, pp. 455-547).

Examination of the h^2 column in Table VI shows very positive common factor variances on all dimensions of organizational health. Hence, one can conclude, that all organizational health variables have in common a large degree of variance.

A factor analysis of organizational health variables showed one major factor clearly in evidence, accounting for 95.42 per cent of the total variance with an eigenvalue of 6.680. In view of its ease of interpretation, rotation was hardly necessary. When rotated, the major factor retained its size, and its rotated and unrotated loadings were identical. The conclusion is clear. This major factor is a composite measure of adequate goal focus, a co-ordinated communication system, an equitable decision-making structure, efficient utilization of human and material resources, adaptability of a school to its environment, problem-solving mechanisms, and maximum opportunities for self-actualization.

Discussion. One of the key questions of the study now has been made clear. The organizational health questionnaire is a valid and reliable measure of organizational health. Furthermore, the analysis reveals that the instrument is factorially "pure". The variables are loaded on only one factor, thus making factorial interpretation relatively simple. Organizational health structure, hence, can be conceptualized as a unitary, homogeneous variable. Each organizational health dimension contributes almost equally to the central notion of the

concept. With such understanding, organizational health can now be used in research more systematically and precisely than formerly.

Some caution, however, must be exercised in this interpretation. Results from this instrument pertain to elementary schools and do not include secondary schools. Specialization, technical competence, and departmentalization are a few of the many conditions that could possibly affect organizational health which are evident at the secondary level, but not prominent at the elementary level.

Departmentalization of secondary schools plus their use of vice-principals and counsellors, tend to dissipate the interaction between a principal and his teachers. At the elementary level, where administrative appendages are lacking, the principal generally has the opportunity for closer and more direct interaction with his teachers. Consequently, one may find different levels of emphasis among such organizational health dimensions as co-ordinated communication system, equitable decision-making structure, and efficient use of human and material resources, in elementary and secondary schools. Further research is needed at other levels of the educational hierarchy in public schools to determine whether the same dimensions of organizational health are as viable at other levels as they are at the elementary level.

II. ANALYSIS OF EXECUTIVE PROFESSIONAL LEADERSHIP,
ORGANIZATIONAL HEALTH, AND GROUP ATMOSPHERE
SCORES

Relationship Between High and Moderate Executive Professional
Leadership Scores

Findings. One of the important assumptions made in the Gross and Herriott study was that there would be variation in the executive professional leadership of elementary school principals. It was assumed that such variation was caused by social and organizational forces affecting administrators of professionally staffed school organizations (2, p. 90).

Among many of the conditions outlined by the researchers as possible contributors to EPL differences in principals were the following. A principal occupies a focal position in his school; serving in such a position, he must interact with, exert influence, and be influenced by, those in related counter positions, such as teachers, other administrators, parents, and pupils. Occupation of such a role suggests that the relations a principal has with one of the above groups may be influenced by a relationship with a third party. Secondly, variations in leadership may be influenced by the type of interactions a principal has with an individual. Existence of a friendly, informal relationship with a staff member, for example, will affect a principal's efforts to influence that member. Finally, the way a principal conducts himself will be influenced by the manner in which he defines

the social situation with which he is confronted. Different social situations will be perceived as requiring different patterns of leader behavior (2, pp. 91-92).

Support of these assumptions is found in Table VII. A significant t was discovered between high and moderate executive professional leadership scores.

Discussion. The fact that a significant t is to be found between high and moderate EPL scores, indicates that variation does exist among elementary school principals in regard to their executive professional leadership. Certain social and organizational forces do affect the leadership behavior of principals. Higher administrative personnel, personal attributes of individual principals, and teacher-principal relationships, are the major factors creating variations in executive professional leadership according to Gross and Herriott's study.

Higher administrative personnel are associated with one source of EPL variation among formal school leaders. Principals are middlemen in the education hierarchy and while they closely interact and influence subordinates in their individual schools, they are influenced and supervised in their turn by higher administrative personnel. Just as teacher performance is influenced by the type of leadership exhibited by their respective principals, so are principals influenced by the type of leadership displayed by higher administrative personnel.

TABLE VII

A COMPARISON OF HIGH EXECUTIVE
PROFESSIONAL LEADERSHIP SCHOOLS
AND MODERATE EXECUTIVE PRO-
FESSIONAL LEADERSHIP SCHOOLS

(High EPL Scoring Schools=13) (Moderate EPL Scoring Schools=15)

| Executive Professional Leadership Scores | Means | S.D. | t |
|---|---------|--------|--------|
| High Scores | 1853.31 | 289.87 | 6.31** |
| Moderate Scores | 1292.80 | 150.06 | |

** Significant at the .01 Level (one-tail)

Gross and Herriott, for example, found that there was a significant and direct relationship between the attitude of a higher administrator toward change and the principal's attitude toward change. A greater number of principals accepted higher administrative personnel who sought and approved the introduction of appropriate change with their school system. Furthermore, the degree of social support a principal received from his superiors affected his EPL. Principals who indicated that they had strong social support from their superiors tended to show high EPL. Finally principals who were directly involved in teacher selection showed higher EPL scores. Possibly this result is due to the fact that principals consciously tend to turn down applicants whose views are not similar to their own (2, pp.106-119).

An administrator's personal attributes were found to affect his executive professional leadership. The above writers note that a principal's self-conception of his own ability positively and significantly affects his EPL. Those administrators who are confident of their own abilities display greater EPL. Principals who show a negative self-concept of their abilities, rate low on EPL. Likewise, administrators who possess high intellectual ability exhibit greater executive professional leadership qualities than those who are not highly intelligent.

The role of principal confronts an individual with a number of unique problems. Resolving some of these problems

will require singular solutions that will demand creativity and careful thought, if they are to be successful. Theoretically, those principals deemed to be more highly intelligent, should be able to display greater ability in arriving at these solutions than those of lesser intelligence.

The motive behind an individual desiring to become a principal affected his EPL. School leaders whose motive was mainly service tended to display high EPL. These individuals expended considerable effort to overcome organizational opposition to their professional leadership. Others whose motive was mainly financial or professional advancement tended to give much more passive leadership (2, pp. 135-149).

Executive professional leadership is influenced, furthermore, by principal-teacher relationships. Heads of schools who seek to involve their teachers in decision-making exhibit higher executive professional leadership. Under such a work environment, the principal is demonstrating to his colleagues that he values and respects their judgments. Teachers, in turn, will be apt to regard him as an associate who seeks to enlist their aid, rather than to subsume their professional prerogatives. Thus by maintaining a more equitable decision-making structure, even though no formal obligation exists, the principal is seeking to reduce possible obstacles to his leadership and enhance his influence over subordinates.

Similarly, the more a principal sought to empathize with his teachers, the greater his executive professional leadership. Administrators who maintain a formal distance

between themselves and their colleagues are thought by staff personnel to be emphasizing their superiority. Consequently, teachers tend to see their principal as a superior rather than as a colleague. Efforts on the part of principals to influence teachers, in these situations tend to be viewed suspiciously and, hence, resisted.

It was also demonstrated that teachers expected a high order of managerial ability from their principals. Last minute bulletin preparation, hesitancy in decision-making, and unnecessary paper work tend to annoy staff members. Such annoyance leads to discontent which tends to strengthen resistance to administrative leadership (2, pp. 121-134).

Each of these factors are possible causes of variation in EPL scores between schools. All were found by the Gross and Herriott research team to be significantly and positively related to executive professional leadership, and consequently, could account partially for some of the differences found in the data analysis.

Relationship Between Moderate and Low Executive Professional Leadership Scores

Findings. Table VIII shows that there is a significant difference between moderate and low scoring schools in executive professional leadership. A t of 9.59 was significant well beyond the .01 level.

Discussion. The relationship between moderate and low

TABLE VIII

A COMPARISON OF MODERATE EXECUTIVE
PROFESSIONAL LEADERSHIP SCHOOLS
AND LOW EXECUTIVE PROFESSIONAL
LEADERSHIP SCHOOLS

(Moderate EPL Scoring Schools=15) (Low EPL Scoring Schools=13)

| Executive Professional Leadership Scores | Means | S.D. | t |
|---|---------|--------|--------|
| Moderate Scores | 1292.80 | 150.06 | 9.59** |
| Low Scores | 815.85 | 92.05 | |

** Significant at the .01 Level (one-tail)

scoring schools on executive professional leadership is interesting. The positive and significant relationship is not too difficult to explain. The degree of executive professional leadership exhibited by a principal is closely associated with a number of possible intra-organizational and extra-organizational factors that either enhance or lessen executive professional leadership. As above, the leadership exerted by higher administrative personnel, principal-teacher relationships, and personal attributes are possible factors preventing an administrator from exerting his full EPL potential.

Specifically, a school leader whose superior is reluctant to approve appropriate and worthwhile innovative ideas, will be frustrated in trying to fulfill the role of change agent in his school. Such obstacles are difficult to overcome and tend, wittingly or not, to reduce professional leadership. Failure of the principal to convey to his teachers a feeling of understanding and support will tend to increase their resistance to his leadership attempts and thus tend to lower his EPL rating. Teachers who perceive a principal as being disinterested and not understanding of classroom problems, will view him as a threat to their autonomy. Failure by a school administrator to offer help when help is needed, or to offer encouragement and support to subordinates encountering problems, lessens his chance of making his meetings with teachers valuable experiences. A principal who in the teacher's view lacks skill in effectively handling parental complaints and disciplinary problems would seem to be failing them when his help is

needed. Consequently, failure to help teachers, may result in a general reluctance by staff members to accept administrative influence in instructional matters (2).

Again, these are only a few of many examples which may account for differences in EPL scores between schools. Their application as an explanation of executive professional leadership is not limited to moderate and low EPL scores. They are general factors which may tend to explain any variation in executive professional leadership scores.

Relationship Between High and Moderate Organizational Health Scores

Findings. A significant t between high and moderate organizational health scores is indicated in Table IX. This difference is significant beyond the .01 level. In short, schools differ in the extent to which organizational health is emphasized and present within them.

Discussion. No empirical research exists to explain why different schools should vary in their organizational health dimensions. One may only speculate on the reasons for this until such time as further work is completed on this topic.

In his article on organizational health, Miles theorized that possible reasons for differences between schools on the organizational health dimension could be attributed to goal ambiguity, role performance invisibility, low interdependence, vulnerability, professional control problems, and low technological investment (5, pp. 22-27).

TABLE IX

A COMPARISON OF HIGH ORGANIZATIONAL
HEALTH SCHOOLS AND MODERATE
ORGANIZATIONAL HEALTH SCHOOLS

(High O.H Scoring Schools=13) (Moderate O.H Scoring Schools=15)

| Organizational Health Scores | Means | S.D. | t |
|---------------------------------|--------|--------|--------|
| High Scores | 769.00 | 117.00 | |
| Moderate Scores | 542.67 | 69.74 | 6.08** |

** Significant at the .01 Level (one-tail)

Educational organizations have a high degree of goal ambiguity. This arises from the difficulty existing in measuring total educational results in a quantitative manner. It is difficult, for example, to determine what a student has learned between his arrival and departure from a given school. Learning is an extremely complex process in which subject matter, social interactions, and gradual maturity are all involved as parts of the continuing development of an individual. The degree of subject matter learned can be measured objectively. It is difficult, however, to devise accurate subjective measures of learning development in terms of social interaction and maturity.

The school occupies a very visible role in a community. Criticism of its operations and practices are common occurrences. This has caused frequent, deliberate goal ambiguity, a form of organizational defense or protection against criticism. It would appear that many administrators believe the adage, "What the public doesn't know won't hurt them." In addition, certain goal statements are considered taboo. Few schools want to admit openly that one of their main purposes with regard to children is custodial (5, pp. 22-23).

It follows that if a school is hesitant about stating many of its real goals, its teachers can not be fully aware of the school objectives, and truly effective and co-ordinated activities can not be directed towards goal accomplishment when goals are unknown.

Closely associated with this problem of goal ambiguity, is what Miles terms role performance invisibility. Much is written in educational literature about the "egg crate" environment of the public schools. Teachers tend to be closeted in their classrooms with little opportunity to observe and discuss professional matters with their colleagues; thus, few teachers have a clear idea concerning the role and performance of other teachers. Students, however, observe rather acutely the quality of individual teacher performance. Teachers, may be very much aware of these student observations, particularly at the secondary level. Educational instructors will sometimes, then, subconsciously substitute different criteria for educational effectiveness. Stated goals are masked and the real goal becomes how much interest the student shows (5, pp. 24-25).

Certainly there appears to be a low interdependence between organizational parts of schools. At the secondary level, departmentalization tends to promote hostility and competition between departments. Other forms of competition are noticed between teachers at all levels of education. One teacher may emphasize wall decor and elaborately decorate his room. Soon other teachers are following suit, in order not to be outdone. Few teachers share materials or lessons on a regular and consistent basis. Hence a rivalry grows between departments or individual teachers, which can cause a breakdown of communication patterns, friendship relations,

and workflow (5, pp. 24-25).

Paul Mort, according to Robinson, notes that the average American school lags twenty-five years behind the best educational practices (6, p. 11). Schools are slow to incorporate new ideas. This condition is due partially to schools being favorite targets for control and criticism. New practices are quickly made known to the community: students, for example, are a primary source of information. They will usually relate to parents the day's events when asked to do so and criticism is frequently engendered. Schools are reluctant to promote new curriculum and organizational changes that may be subject to community criticism, even when they may be to their betterment (5, pp. 25-26).

A great deal is said about the growing number of professionals employed in bureaucratic organizations. Professionals generally have their own concept of the role they should play, and these concepts may be at odds with organizational goals or objectives. Therefore, when professionals are employed in bureaucratic organizations, conflict may result which will affect not only the individual, but the organization (5, p. 26). As Etzioni explains:

It is this highly individualized principle which is diametrically opposed to the very essence of the organizational principle of control and coordination by superiors, that is, the principle of administrative authority. In other words, the ultimate justification for a professional act is that it is, to the best of the professional's knowledge, the right act.... The ultimate

justification of an administrative act, however, is that it is in line with the organization's rules and regulations, and that it has been approved - directly or by implication - by a superior rank (1, pp. 70-71).

Educational research contains evidence which demonstrates the existence of stress and strain between professional and organizational principles in schools. These patterns only tend to create resistance between teachers and administrative authority.

Principals are involved in a similar form of conflict. Superintendents may, for example, demand of their principals greater supervision of teachers. A school administrator will have to reconcile board office requests with the need to protect the professional prerogatives of teachers. Conflicting demands such as this will make their effects felt on the school's communication network and teacher-principal relationships.

Miles also notes that school systems tend to spend little on equipment and materials. Most of the school budget tends to go for the salaries of school personnel (5, pp. 26-27). Under such budgeting policies, schools have been slow to utilize technology, for instance, to assist teachers in their non-professional tasks. Certainly if more of such help was available, it would assist in freeing the teacher from clerical tasks and give him more time to devote to educational activities (6, p. 11).

While all of these conditions may be present within

schools, they will not exist in each to the same degree. However a combination of such variations in schools could account for the significant differences between high and moderate school scores on the organizational health variable.

Relationship Between Moderate and Low Organizational Health Scores

Findings. Table X shows a significant difference between moderate and low organizational health scores.

Discussion. Undoubtedly the same reasoning given to explain the significant difference between high and moderate organizational health scores can be applied here. Moderate scoring schools should possess a more adequate goal focus, a more co-ordinated communication system, and be more flexible in their response to curriculum and organizational changes where appropriate. Less stress should be felt by organization members in these schools, particularly as they relate to hierarchical authority and procedural specification.

Relationship Between High and Moderate Group Atmosphere Scores

Findings. No significant difference was found between high and moderate group atmosphere scores (Table XI).

Discussion. The fact that no significant difference is to be found between high and moderate group atmosphere scores is not surprising in view of the intercorrelation results (ante, p. 108) between executive professional leadership, organizational health, and group atmosphere variables. Those

TABLE X

A COMPARISON OF MODERATE ORGANIZATIONAL
HEALTH SCHOOLS AND LOW ORGANIZATIONAL
HEALTH SCHOOLS

(Moderate OH Scoring Schools=15) (Low OH Scoring Schools=13)

| Organizational Health Scores | Means | S.D. | t |
|---------------------------------|--------|-------|--------|
| Moderate Scores | 542.67 | 69.74 | 8.34** |
| Low Scores | 350.85 | 41.88 | |

** Significant at the .01 Level (one-tail)

TABLE XI

A COMPARISON OF HIGH GROUP ATMOSPHERE
SCHOOLS AND MODERATE GROUP ATMOS-
PHERE SCHOOLS

(High GA Scoring Schools=13) (Moderate GA Scoring Schools=15)

| Group Atmosphere Scores | Means | S.D. | t |
|----------------------------|-------|------|-----|
| High Scores | 67.54 | 6.18 | .15 |
| Moderate Scores | 67.20 | 5.14 | |

results showed executive professional leadership and organizational health scores to be highly interrelated. Group atmosphere was not related to either of these two variables.

McNamara and Enns found group atmosphere to be an independent variable. In their study, principals from a random sample of elementary schools were asked to complete the LPC and GA scales with reference to their own staffs. Teachers in each of these schools were asked to fill out a questionnaire designed to identify supervisory behavior characteristics of their respective principals. At the same time, they were asked to indicate their personal professional orientation and attitude toward their principals and schools. Board office officials were asked, similarly, to rate each of these schools (not their principals) in effectiveness.

The highest and lowest schools on GA (Group Atmosphere) were identified. The subsequent results show that neither the LPC scores, nor the GA scores, correlated with the effectiveness ratings made by board office officials. Partitioning these schools on the basis of their group atmosphere ratings, produced significant correlations between LPC scores and system effectiveness ratings of schools. Results indicate that effective leadership occurs in those schools where the principal's leadership is directive, provided the school displays high group atmosphere. In low group atmosphere schools administrators tend to be more effective if they are permissive (4, p. 7).

Teacher descriptions of principal supervisory behavior indicate that low LPC principals tend to attach greater importance to instructional matters at staff meetings, be more directive in their supervisory practices, and request more frequent teacher-principal conferences to discuss teaching methods. Low LPC principals, however, are not considered dictatorial. They are regarded as seeking to provide upward communication and to permit teachers to have a greater share in decision-making (4, p. 7).

The researchers, on the above basis, conclude that GA is an important moderating variable between LPC scores and school effectiveness; but find it to be independent of directive leadership style. Such conclusions are supported by the finding that LPC and GA scores are not significantly correlated in the study. McNamara and Enns conclude:

These relationships suggest that some principals succeed in getting their staffs to identify with them but this relationship of support is independent of either directiveness or effectiveness (4, p. 8).

Relationship Between Moderate and Low Group Atmosphere Scores

Findings. No significant difference was found between moderate and low group atmosphere scores (Table XII).

Discussion. Again, the results of this aspect of the study support the findings of McNamara and Enns. Group atmosphere is an independent variable; the degree of group atmosphere present within a school does not seem to have an effect on the relationship between the principal's executive

TABLE XII

A COMPARISON OF MODERATE GROUP
ATMOSPHERE SCHOOLS AND LOW GROUP
ATMOSPHERE SCHOOLS

(Moderate GA Scoring Schools=15) (Low GA Scoring Schools=13)

| Group Atmosphere Scores | Means | S.D. | t |
|----------------------------|-------|------|------|
| Moderate Scores | 67.20 | 5.14 | |
| Low Scores | 64.85 | 5.13 | 1.67 |

professional leadership and organizational health.

III. SUMMARY

In summation, the organizational health questionnaire proved to be a powerful measure of a school's organizational health. Its variables were found to be positively and significantly interrelated with the executive professional leadership variable. A one-way analysis of variance test on school scores, based on executive professional leadership and organizational health variables, showed significant differences between schools on each of these variables.

Results from a factor analysis of the organizational health questionnaire indicated it to be factorially "pure". One major factor was clearly in evidence. Examination of the communalities demonstrated the instrument's high reliability and high construct validity.

Significant differences were found between high and moderate executive professional leadership scores and between moderate and low EPL scores. These differences were probably due in part to certain social and organizational forces operating within each school.

Significant differences were found between high and moderate organizational health scores and moderate and low OH scores. The fact that only theoretical evidence could be cited to account for these differences, underlines the need for further research to give empirical information on the

basic causes behind these differences.

Finally, no statistically significant differences were found between high and moderate group atmosphere scores and between moderate and low group atmosphere scores. Group atmosphere, one may assume, is not an important mediating variable between executive professional leadership and organizational health.

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CHAPTER V
SUMMARY, CONCLUSIONS, FURTHER RESEARCH
AND IMPLICATIONS

I. SUMMARY

The Problem

The problem of this study was an investigation of the relationship existing between a principal's executive professional leadership and his school's organizational health, contingent upon the level of group atmosphere within his school.

Analysis of the Problem

A large number of writers in the field of organizational analysis (Bennis, Georgopoulos and Tannenbaum, Miles, Robinson, Derr and Gabarro) have pointed out the difficulty in formulating criteria to measure the effectiveness of an organization. Effectiveness criteria based on satisfaction and performance measures have proved to be of limited value in measuring the dimension of organizational effectiveness.

Miles and Robinson have proposed, therefore, an alternative measure of organizational effectiveness, the criterion of organizational health. Their studies pointed to the usefulness of linking theoretical concepts of organizational health to actual school situations, and determining whether these concepts were adequate when applied to a large number of school environments.

A number of writers such as McKague, Greenfield, McNamara and Enns, MacKay, Gross and Herriott, have indicated the effects which formal leadership has on various aspects of school organization. Among these researchers, the efforts of Gross and Herriott were of particular importance to this study. A principal's executive professional leadership, they determined, was positively and significantly related to the effectiveness criteria of staff morale, teacher performance, and student learning. Since these criteria are closely associated with this study's definition of organizational health, it seemed logical to investigate whether EPL would be related to organizational health, contingent upon group atmosphere.

Sub-Problems and Hypotheses

Sub-Problem 1.0 investigated the relationship between executive professional leadership and organizational health in high group atmosphere situations. It was hypothesized that principals displaying high executive professional leadership would administer schools rated high in organizational health, provided there exists high group atmosphere. In addition, it was hypothesized that principals who exhibit low executive professional leadership in high group atmosphere schools would administer schools rated low in organizational health. Conversely, it was hypothesized that principals who showed high executive professional leadership in high group atmosphere schools would administer schools rated low in organizational health. Finally, it was hypothesized that principals who

exert low EPL in high GA schools would administer schools rated high in organizational health.

Sub-Problem 2.0 investigated the relationship between executive professional leadership and organizational health in low group atmosphere situations. It was hypothesized that principals who display high executive professional leadership in low group atmosphere schools would administer schools rated high in organizational health. Furthermore, it was hypothesized that principals who exhibit low executive professional leadership in low group atmosphere schools would administer schools rated high in organizational health. Conversely, it was hypothesized that principals who exert high executive professional leadership in low group atmosphere schools would administer schools rated low in organizational health. Finally, it was hypothesized that principals who show low executive professional leadership in low group atmosphere schools would administer schools rated low in organizational health.

Results

Hypothesis 1.1, 1.2, 2.1, and 2.4 were partially supported. Principals who displayed high executive professional leadership administered schools high in organizational health. Principals who exerted low executive professional leadership, administered schools rated low in organizational health. Group atmosphere was not found to be an important mediating variable in these relationships.

Hypotheses 1.3 and 1.4, and hypotheses 2.2 and 2.3 were not supported.

II. CONCLUSIONS

In Relation to Instrumentation

One of the most fruitful outcomes of this study has been the work done on instrumentation. A considerable part of the total effort devoted to this investigation was spent in developing an instrument to measure the criterion of organizational health.

The Organizational Health Scale was designed especially for this study. In addition, it was validated for use in determining differences in organizational health between schools. The final product proved to be a highly discriminative measure and should be useful as a future research instrument, although it could be further refined.

Specifically, the instrument should be lengthened and additional points of reference included under each major sub-dimension. As it is presently conceived, the instrument provides a global rating on organizational health. This variable is a complex, multi-dimensional concept, and therefore, it seems desirable to lengthen each of its sub-dimensions to include questions which would assist in defining its aspects more precisely.

For example, one of the instrument's sub-measures refers to the adaptability of a school to its environment; yet no

exact definition of environment has been included. Derr and Gabarro, in a recent article, discuss the difficulty in defining environment. Many definitions have been ascribed to this term. It can be described in terms of culture, religion, national background, or in terms of issues or problems such as racism, alienation, and change; or it can be described in terms of political orientation. A school environment is usually composed of numerous groups and institutions including students, parents, community, courts, and government agencies. Problems arise in trying to determine which aspects of these extra-organizational influences have the most effect on schools, and therefore which should be given priority consideration when deciding what comprises a school's environment (1, pp. 35-36).

Such diffuse terms need greater clarification and precision. Only through such measures can one hope to enhance the depth and discriminatory powers of the original instrument.

In Relation to Organizational Health

One of the most significant findings of this study was that elementary schools do differ in their degree of organizational health. Up to this point, organizational health has not been empirically investigated in the school system. Now that its existence has been confirmed, much work still needs to be done to identify factors which contribute to high or

low organizational health in elementary schools. A key question which remains is the effect of possible socio-economic variables on a school's health. Educational research in the field of school performance has shown these factors to have a dominant effect on all indicators used in such investigations (1, p. 39). Their possible effect on organizational health cannot be ignored in further research on this topic.

Additional work needs to be done at the secondary level. The effects on organizational health of increased specialization, greater departmentalization, and increased reliance on specialized administrative appendages are significant factors which deserve consideration for research. The findings in this study apply only to elementary schools: whether similar differences would appear in a study of secondary schools is an interesting speculation. It seems proper to suggest that their existence could be shown.

In Relation to Group Atmosphere

In this study, it was shown that group atmosphere was not an important mediating variable between EPL and organizational health. It was not significantly correlated with either executive professional leadership or organizational health variables. Instead EPL was found to be directly related to organizational health independent of group atmosphere.

This finding is of considerable interest and importance to students of organizational analysis. It supports the work

of McNamara and Enns (5) who found that LPC and GA scores do not correlate significantly. GA was found, however, to be a crucial mediator of leadership effectiveness. Similar observations concerning group atmosphere, were not found in the present investigation.

Results from this study appear somewhat contrary to research done by McKague (4). His investigation showed LPC scores to be significantly related to the OCDQ dimensions of high esprit and low disengagement for high GA schools. GA however was not important in this present study. In a parallel fashion, similar trends were found between LPC scores and the teacher behavior variables of hindrance and intimacy, although these were not highly significant. No significant differences were found between LPC scores and the OCDQ dimensions of teacher behavior in low GA schools.

Such diffuse findings indicate that the relationship between leadership style and group atmosphere is very complex and needs further investigation. The observed variation in these reports may be due to other factors--either extra-organizational or intra-organizational which need to be explored to help explain the root cause for these research findings.

III. FURTHER RESEARCH

The Organizational Health Scale should prove a useful research instrument for further organizational health investigations in schools. Much useful work can still be done to

develop this instrument further. A particularly useful project would be the elaboration of the Organizational Health Scale in order that the sub-dimensions of organizational health could be defined more precisely.

An extremely interesting area of enquiry should be an investigation of organizational health on the secondary level. Since elementary schools do differ in their degree of organizational health, it would be useful to determine whether similar differences are to be found between high schools and whether these differences are significant. It would be interesting to know whether greater teacher competence, departmentalization, and use of specialized administrative assistants, contribute to differences in organizational health.

It would also appear profitable to investigate possible socio-economic variables that may effect the organizational health existing within a school. Gabarro finds that a school which proves to be more adaptive to its environment has attained higher states of differentiation and integration. Less adaptive systems have not obtained the degree of differentiation and integration that were found present among the more adaptive schools (1, pp. 29-31). It would be interesting to know whether changes in the environment due to possible uncertainty, chance, and diversity require greater leadership and integrative actions within the immediate school and the resultant effects on a school's organizational

health.

An examination of the relationships between EPL and sex, marital status, level of education obtained by the leader, career line, and their indirect effects on organizational health, would appear to be profitable. Gross and Herriott, for example, find evidence which supports a relationship between certain combinations of age, sex, and marital status and the executive professional leadership of a principal (3, pp. 61-87). Consequently, it may be reasonable to suggest that these same factors influencing an administrator's EPL, would indirectly affect the level of organizational health present within his school.

IV. IMPLICATIONS

Research in educational administration in recent years has been strongly dependent on an inter-disciplinary approach. Educational theorists have carefully examined research results from the social science fields of sociology, psychology, anthropology, political science, and economics and have adapted and utilized their insights in the field of education. A new science of organization analysis is emerging, today, which is based on findings from the social scientific fields. This study is among many which illustrate the applicability of modern organization theory to an investigation of school organizations.

One of the implications extrapolated from this study is the important effect a principal's leadership style has on his

school's organizational health. The fact that a trend exists among Canadian and American publics to seek justification for the growing cost of education underlines the potential importance of this relationship. If justification continues to be demanded, educational administrators will have to demonstrate that their schools are running efficiently and effectively. This study has indicated a satisfactory criterion with which to judge school organizations. It becomes important that those educational leaders who are interested in improving the effectiveness of their schools, become aware of the dimensions of organizational health and take appropriate steps to develop and improve these dimensions within their schools to their maximum potential.

Finally, a study of the relationship between the executive professional leadership exhibited by a higher administrator, as it relates to a principal's leadership, and consequent influences on organizational health would appear to be of benefit. Research indicates that high executive professional leadership among principals tends to be associated with high EPL being demonstrated by their immediate superiors (eg. assistant superintendent). This finding does not hold true of the relationship between principal and superintendent. In other words, those board office officials who typically interact most directly and most closely with principals exert the greatest influence on their leadership (3, p. 153).

A question arises concerning a superintendent who does exert EPL and supports his principals, but whose immediate

assistants do not display similar leadership qualities. Should a superintendent, desirous of improving the organizational health in his schools, and under such conditions, concentrate on trying to increase the EPL of his principals or of his immediate subordinates? What would be his most effective course of action?

V. CONCLUDING STATEMENT

In seeking to assess the value of this inquiry as a contribution to knowledge in the field of educational administration, reference must be made to a recent article by Etzioni. Social problems, according to this writer, can not be solved satisfactorily by attempting to change people. Positive results are more likely to be achieved by attempting an approach that accepts people as they are, that does not try to change them, but instead, seeks to change the circumstances around them (2, pp. 45-46). Efforts by a principal to improve his school's organizational health are more likely to be successful, not by attempting to make individuals more effective, but by improving the effectiveness of the environment in which they work.

This research has supported Etzioni's thesis. It has provided educators with an instrument which measures a school's organizational health, and therefore, should prove useful to both the practising administrator and the educational theorist.

Secondly, the study has made two important theoretical contributions to organization theory; in particular to organizational effectiveness. It has demonstrated that the criterion of

organizational health is applicable to elementary schools. It has also shown that there are differences in organizational health between these schools. Both these findings suggest possible avenues for further research in the analysis of organizational health in education.

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APPENDICES

APPENDIX A

SAMPLE QUESTIONNAIRES

ORGANIZATIONAL CHARACTERISTICS OF

YOUR SCHOOL

GROUP ATMOSPHERE SCALE

THE PRINCIPAL OF THIS

SCHOOL

(Pilot Study)

**QUESTIONNAIRE ON ORGANIZATIONAL CHARACTERISTICS
OF YOUR SCHOOL**

1, 2 Adequate Goal Focus

(a) This school provides its teachers and students with an adequate awareness of the school's goals.

A B C D E

(b) The school's administrators, teachers, and students direct their efforts toward the achievement of these goals.

A B C D E

3, 4 A Co-ordinated Communication System

(a) Effective communication exists between all administrators, teachers, and students within this school.

A B C D E

(b) Effective communication exists between the school and the community it serves.

A B C D E

5, 6 An Equitable Decision-making Structure

(a) There is a reasonable distribution of shared decision-making among this school's administrators, teachers, and students on matters that concern each group.

A B C D E

(b) Final decisions are the result of collaborative rather than coercive interaction among members.

A B C D E

7, 8 Efficient Utilization of Human and Material Resources

(a) Teachers within this school are assigned instructional tasks appropriate to their past training and experience.

A B C D E

(b) In addition, teachers have available to them sufficient material resources to perform their tasks

A B C D E

9, 10 Autonomy Within its Environment; yet Adaptive to Environmental Influence

(a) This school has the ability to discern accurately the demands of its environment and to respond in an adaptive fashion to these demands.

A B C D E

(b) At the same time, the school has a degree of independence from its environment; and these same environmental demands do not completely determine all the behaviors of the school.

A B C D E

11. Problem Solving Mechanisms

This school has well-developed structures and procedures for perceiving the existence of problems, for analyzing them, for deciding and implementing solutions, and for evaluating their effectiveness.

A B C D E

12. Maximum Opportunities for Self-actualization

This school provides its members with an opportunity to express their full potential and expand on this potential. In return for outstanding performance and creativity, the school gives them a sense of satisfaction and a chance to further utilize their talents.

A B C D E

GROUP ATMOSPHERE SCALE

Describe the atmosphere of your group by checking the following items.

EXAMPLE: The atmosphere in this school is:

8 7 6 5 4 3 2 1

Cheerful _____ X _____ Dispirited

THE PRINCIPAL OF THIS SCHOOL

To what extent does your principal engage in the following kinds of behavior? In answering, please circle the one number in each row that best describes the behavior of your principal.

| | Never | Almost Never | Occasionally | Frequently | Almost Always | Always | I do not know |
|--|-------|--------------|--------------|------------|---------------|--------|---------------|
| 23. Gives teachers the feeling that their work is "important" activity__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 24. Gives teachers the feeling that they can make significant contributions to improving the classroom performance of their students__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 25. Takes a strong interest in my professional development | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 26. Makes teachers' meetings a valuable educational activity__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 27. Helps to eliminate weaknesses in his school__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 28. Treats teachers as professional workers__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 29. Helps teachers to understand the sources of important problems they are facing | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 30. Displays a strong interest in improving the quality of the educational program__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 31. Brings to the attention of teachers educational literature that is of value to them in their jobs__ | 0 | 1 | 2 | 3 | 4 | 5 | X |

| | Never | Almost Never | Occasionally | Frequently | Almost Always | Always | I do not know |
|---|-------|--------------|--------------|------------|---------------|--------|---------------|
| 32. Has constructive suggestions to offer teachers in dealing with their major problems__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 33. Gets teachers to upgrade their performance standards in their classrooms__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 34. Maximizes the different skills found in his faculty__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 35. Makes a teacher's life difficult because of his administrative ineptitude | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 36. Runs conferences and meetings in a disorganized fashion__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 37. Has the relevant facts before making important decisions__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 38. Displays inconsistency in his decisions__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 39. Procrastinates in his decision making__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 40. Requires teachers to engage in unnecessary paper work__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 41. Displays integrity in his behavior__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 42. Puts you at ease when you talk with him__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 43. Makes those who work with him feel inferior to him__ | 0 | 1 | 2 | 3 | 4 | 5 | X |

| | Never | Almost Never | Occasionally | Frequently | Almost Always | Always | I do not know |
|---|-------|--------------|--------------|------------|---------------|--------|---------------|
| 44. Develops a real interest in your welfare__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 45. Develops a "we" feeling in working with others__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 46. Rubs people the wrong way | 0 | 1 | 2 | 3 | 4 | 5 | X |

APPENDIX B

SAMPLE QUESTIONNAIRES

**QUESTIONNAIRE ON ORGANIZATIONAL
CHARACTERISTICS OF YOUR SCHOOL
THE PRINCIPAL OF THIS
SCHOOL**

(Final Version)



SIMON FRASER UNIVERSITY, BURNABY 2, B.C., CANADA
FACULTY OF EDUCATION; 291-3395

January 14, 1972

Dear Colleague:

On the following pages is a list of items that may be used to determine the characteristics of your school. The items describe conditions that may exist in the school. Please indicate to what extent each of these descriptions characterize your present school situation. 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 the situation in your 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 and return this questionnaire to the teacher in your school that has been named to collect and return the questionnaires in approximately one week's time.

Yours very truly,

George B. Jackson.



**QUESTIONNAIRE ON ORGANIZATIONAL CHARACTERISTICS
OF YOUR SCHOOL**

DIRECTIONS:

- a. READ each item carefully.
- b. THINK about each item.
- 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

1,2 Adequate Goal Focus

- (a) This school provides its teachers and students with an adequate awareness of the school's goals.

A B C D E

- (b) The school's administrators, teachers and students direct their efforts toward the achievement of these goals.

A B C D E

3,4 A Co-ordinated Communication System

- (a) Effective communication exists between all administrators, teachers, and students within this school.

A B C D E

- (b) Effective Communication exists between the school and the community it serves.

A B C D E

5,6 An Equitable Decision-making Structure

- (a) There is a reasonable distribution of shared decision-making among this school's administrators, teachers, and students on matters that concern each group.

A B C D E

- (b) Final decisions are the result of collaborative rather than coercive interaction among members.

A B C D E

7,8 Efficient Utilization of Human and Material Resources

(a) Teachers within this school are assigned instructional tasks appropriate to their past training and experience.

A B C D E

(b) In addition, teachers have available to them sufficient material resources to perform their tasks.

A B C D E

9,10 Autonomy Within its Environment; yet Adaptive to Environmental Influence

(a) This school has the ability to discern accurately the demands of its environment and to respond in an adaptive fashion to these demands.

A B C D E

(b) At the same time, the school has a degree of independence from its environment; and these same environmental demands do not completely determine all the behaviors of the school.

A B C D E

11 Problem Saving Mechanisms

This school has well-developed structures and procedures for perceiving the existence of problems, for analyzing them, for deciding and implementing solutions, and for evaluating their effectiveness.

A B C D E

12 Maximum Opportunities for Self-actualization

This school provides its members with an opportunity to express their full potential and expand on this potential. In return for outstanding performance and creativity, the school gives them a sense of satisfaction and a chance to further utilize their talents.

A B C D E

THE PRINCIPAL OF THIS SCHOOL

To what extent does your principal engage in the following kinds of behavior? In answering, please circle the one number in each row that best describes the behavior of your principal.

| | Never | Almost Never | Occasionally | Frequently | Almost Always | Always | I do not know |
|--|-------|--------------|--------------|------------|---------------|--------|---------------|
| 13. Gives teachers the feeling that their work is an "important" activity__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 14. Gives teachers the feeling that they can make significant contributions to improving the classroom performance of their students__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 15. Takes a strong interest in my professional development | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 16. Makes teachers' meetings a valuable educational activity__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 17. Helps to eliminate weaknesses to his school__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 18. Treats teachers as professional workers | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 19. Helps teachers to understand the sources of important problems they are facing | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 20. Displaying a strong interest in improving the quality of the educational program__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 21. Brings to the attention of teachers educational literature that is of value to them in their jobs__ | 0 | 1 | 2 | 3 | 4 | 5 | X |

| | Never | Almost Never | Occasionally | Frequently | Almost Always | Always | I do not know |
|---|-------|-----------------|--------------|------------|------------------|--------|------------------|
| 22. Has constructive suggestions to offer teachers in dealing with their major problems__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 23. Gets teachers to upgrade their performance standards in their classrooms__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 24. Maximises the different skills found in his faculty__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 25. Makes a teacher's life difficult because of his administrative ineptitude | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 26. Runs conferences and meetings in a disorganized fashion__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 27. Has the relevant facts before making important decisions__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 28. Displays inconsistency in his decisions__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 29. Procrastinates in his decision making__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 30. Requires teachers to engage in unnecessary paper work__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 31. Displays integrity in his behavior__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 32. Puts you at ease when you talk with him__ | 0 | 1 | 2 | 3 | 4 | 5 | X |

| | Never | Almost Never | Occasionally | Frequently | Almost Always | Always | I do not know |
|--|-------|--------------|--------------|------------|---------------|--------|---------------|
| 33. Makes those who work with him feel inferior to him | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 34. Develops a real interest in your welfare__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 35. Develops a "we" feeling in working with others__ | 0 | 1 | 2 | 3 | 4 | 5 | X |
| 36. Rubs people the wrong way | 0 | 1 | 2 | 3 | 4 | 5 | X |

APPENDIX C

GROUP ATMOSPHERE SCALE

(Final Version)

APPENDIX D

CORRESPONDENCE



SIMON FRASER UNIVERSITY, BURNABY 2, B.C., CANADA
FACULTY OF EDUCATION; 291-3395

November 27, 1971.

Dear Sir: ✓

I would like to request your district's co-operation in a research project I am presently conducting. This undertaking is in partial fulfillment of an M.A. degree in Educational Administration at Simon Fraser University and has the approval of Dr. Norman Robinson, my senior faculty advisor.

To aid me in this research, I would appreciate it if I would have permission to contact the principals of the following elementary schools to seek their assistance in this study. They are:

These schools are among several that have been randomly selected from a list of province wide elementary schools. This school level has been selected because their principals typically interact most directly and closely with their teachers. Such a relationship is essential to the validity of the proposed study.

Enclosed is a précis of the project explaining its purpose, importance, and relevance to the practicing administrator. Please also find included a copy of the questionnaire that will be sent to the above schools for data tabulation.

I would be grateful for your district's assistance in this effort. Please be assured the complete anonymity of the obtained data will be maintained. May I extend my thanks in anticipation of your co-operation. Should there be further questions concerning this project, you may contact me collect at 522-1543 (area code 604).

Respectfully,

George B. Jackson



THE INFLUENCE OF THE PRINCIPAL
ON ORGANIZATIONAL CHARACTERISTICS
OF ELEMENTARY SCHOOLS

The purpose of this proposed research is to determine how the leader behavior of an elementary principal as perceived by his teachers and influenced by the group support which he commands from his followers, affects the organizational health of his school.

Organizational health is a term used to describe the effectiveness of a total system. A healthy school not only has the ability to successfully interact with its environment, but to do so on a continuous basis. At any one time, immediate problems may be handled in an ineffective manner; but over a long period, the organization will effectively contend with its environment and continue to strengthen and enhance its coping capabilities. Organizations of this nature are described as open systems.

Healthy schools, therefore, can be defined as open systems, displaying a realistic awareness of "who they are and where they are going", and maintain sufficient problem-solving mechanisms to cope with a changing environment in discernible terms.

The following criteria are used in this project to characterize a healthy school: an adequate degree of goal focus, a co-ordinated communication system, and equitable decision-making structure, efficient utilization of human and material resources, adaptability of a school to its environment, well defined problem-solving mechanisms, and provision of maximum opportunities for self-actualization.

A review of the literature indicates that organizational effectiveness has been depicted mainly in terms of productivity. Such a viewpoint examines only one subpart of the total organization. Behavioral explanations of actions by teachers, pupils, and schools must come from an examination of the overall system and not from one or more of its components.

Present knowledge of organization permits one to make only crude estimates and analysis of a particular school or school system. Since individual schools and school districts exert control over all activity that occurs within them, it is essential that educational administrators and leaders be able to understand the workings of this control and direct it towards the accomplishment of desirable ends.

The principal is the leader of his school. As such, he is "accountable" for determining, maintaining, and initiating, at times, an optimum level of control for effective group activity. Introduction of carefully planned change is necessary, on occasion, to obtain and/or maintain an efficient and effective school. The probable success of any major change effort will depend, to a large extent, on the organization's state of health. Those principals who have a working knowledge of the properties of a healthy school will have a greater chance of institutionalizing the change.

Mounting educational expenditure has focused, in the last few years, considerable attention on the province's schools. Predictions indicate that school districts will have to rely more on the use of operational referenda to meet the increased cost of education. This method of procuring funds will place an added burden on the individual school systems. Citizens are demanding a redefinition of the school's purpose, a sharp improvement in its products quality, and a better instructional approach. Increased community support for its public schools will demand of the administrator more effective evaluative measures of his school's organization. The public wants to see tangible results. It is the responsibility of the administrator to provide them with these results.

To assist the validity of this research, a pilot study was recently conducted in one of the Lower Mainland school districts to test the reliability of those questions contained in the instrument designed to examine the above problem. The final data analysis showed a positive correlation relationship among all questions with many results being significant at the .05 and .01 levels.



SIMON FRASER UNIVERSITY, BURNABY 2, B.C., CANADA
FACULTY OF EDUCATION; 291-3395

January 7, 1972

Dear Principal:

I would like to request your school's co-operation in a research project I am presently conducting. This undertaking is in partial fulfillment of an M.A. degree in Educational Administration at Simon Fraser University and has the approval of Dr. Norman Robinson, my senior faculty advisor.

Your school is among several that have been randomly selected from a stratified sample of province-wide elementary schools. Permission to contact you was sought and given to me by those district superintendents whose schools were chosen from the sample. This school level has been selected because their principals typically interact most directly and closely with their teachers. Such a relationship is essential to the validity of the proposed study.

Enclosed is a précis of the project explaining its purpose, importance, and relevance to the practicing administrator. Also find included a copy of the questionnaire that will be used to obtain the necessary research data. A stamped card is provided to ease and speed your reply.

Please be assured that complete anonymity will be maintained. That portion of the questionnaire designed to determine the organizational characteristics of your school and that aspect designed to determine your leadership behavior will be given to those teachers on staff who have taught under you for a period of one year or longer. Every principal will be asked to complete another questionnaire which examines the group atmosphere prevalent within his or her school. Each instrument will be individually enclosed within a brown envelope that can be sealed. This precaution is to ensure that all responses will remain private. Completed questionnaires will be returned to an assigned teacher whom you will select within the school and then sent to the University for tabulation.



A resumé of the project's results and summary data from your school will be made available to you.

I would be grateful for your school's assistance in this effort. May I extend my thanks in anticipation of your cooperation. Should there be further questions concerning this project, you may contact me collect at 522-1543 (area code 604) after 4:00 p.m.

Sincerely,

George B. Jackson.



SIMON FRASER UNIVERSITY, BURNABY 2, B.C., CANADA
FACULTY OF EDUCATION; 291-3395

January 14, 1972

Dear Principal:

Please find enclosed the required number of questionnaires to complete the study THE INFLUENCE OF THE PRINCIPAL ON ORGANIZATIONAL CHARACTERISTICS OF ELEMENTARY SCHOOLS in your school.

To assure your teachers anonymity of their responses and the study's validity please proceed by the following guidelines:

1. Hand out the questionnaires to those teachers who have taught for you one year or longer.
2. Select one teacher to collect and return the completed questionnaires to the University for tabulation.
3. Allow approximately one week's time for the questionnaires to be completed.

Thank you for your assistance and cooperation in this research. Summary data from your school and from the entire project will be sent to you as soon as possible.

Yours very truly,

George B. Jackson.





SIMON FRASER UNIVERSITY, BURNABY 2, B.C., CANADA
FACULTY OF EDUCATION; 291-3395

January 23, 1972.

Dear Colleague:

I would like to request your co-operation in a research project I am presently conducting. This undertaking is in partial fulfillment of an M.A. degree in Educational Administration at Simon Fraser University.

Your school is among several that have been randomly selected from a list of province-wide elementary schools. Permission to conduct the study in your school has been given me by your principal and district superintendent.

The purpose of this research is to determine how your principal influences certain organizational characteristics of elementary schools.

Effective schools have in common, I believe, certain organizational characteristics. Among these traits are: clearly defined goals, a co-ordinated communication system, an equitable decision-making structure, and efficient placement and utilization of human and material resources.

Each one of these characteristics are influenced by your school's principal. The question is, to what degree does he influence these traits? All principals have certain objectives that they would like to see their schools strive to achieve. In their endeavor to see their schools meet these objectives, they are confronted by unforeseen difficulties. Their efforts to overcome these hurdles are a measure of their executive professional leadership.

It is hypothesized that the degree of executive professional leadership shown by an administrator plus the support he receives from his staff will have a positive effect on those organizational characteristics which have been outlined to you.

To maintain complete anonymity, do not put your name on any pages of the questionnaire. Read and follow the instructions carefully. The items contained in the instrument should not be evaluated as "good" or "bad" conditions. They are only used to make it possible for you to describe the



situation in your school as accurately as possible.

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

When you have completed the questionnaire, place it in the brown envelope provided you and seal it. Return it to the appropriate teacher on your staff sometime within a period of approximately one week.

I would be grateful for your assistance in this effort. May I extend my thanks in anticipation of your cooperation.

Yours truly,

George B. Jackson.