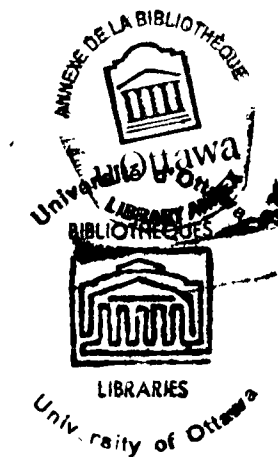


DIMENSIONS OF JOB SATISFACTION
AS DETERMINANTS OF
ORGANIZATIONAL EFFECTIVENESS

by H. Robert G. Knoop

Thesis submitted to the School of
Graduate Studies in partial fulfillment
of the requirements for the degree of
Ph.D. in Education



University of Ottawa
Ottawa, Canada, 1975

UMI Number: DC53911

INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

UMI[®]

UMI Microform DC53911
Copyright 2011 by ProQuest LLC
All rights reserved. This microform edition is protected against
unauthorized copying under Title 17, United States Code.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

ACKNOWLEDGEMENTS

This thesis was prepared under the supervision of Professor Robert O'Reilly, Ph.D., of the Faculty of Education, University of Ottawa, to whom the writer is grateful for his valuable appraisals and suggestions.

The writer is also indebted to Professors Patrick Babin, Ian Dow, and Philip Patsula, all of the University of Ottawa, for their assistance and encouragement.

CURRICULUM STUDIORUM

H. Robert G. Knoop was born January 11, 1938, in Hamburg, Germany. He received the Bachelor of Commerce degree in Economics from Sir George Williams University, Montreal, in 1962. He received the Master of Arts degree in Education from the University of Ottawa, Ottawa, in 1974. The title of his thesis was Decision-Making Procedures and Teacher Participation.

TABLE OF CONTENTS

Chapter	page
INTRODUCTION	vi
I.- REVIEW OF THE LITERATURE	1
1. The Variables	1
2. Theory and Related Research	13
3. Statement of Hypotheses	42
II.- EXPERIMENTAL DESIGN	44
1. The Instrument	44
2. The Sample	60
3. Statistical Procedures	63
III.- PRESENTATION OF RESULTS	64
1. Interrelationship Among Variables	64
2. Tests for Significance	68
3. Multiple Regression Analysis	73
IV.- DISCUSSION OF RESULTS	80
1. Theoretical Considerations	80
2. Promotion as Determinant	88
3. Relationship to Previous Research	91
SUMMARY AND CONCLUSIONS	96
BIBLIOGRAPHY	98
APPENDIX	
1. THE MEASURING INSTRUMENT	102
2. THE RAW DATA	105
3. ABSTRACT OF <u>Dimensions of Job Satisfaction as Determinants of Organizational Effectiveness</u>	111

LIST OF TABLES

Table	page
I.- Population and Sample of Elementary Schools	62
II.- Spearman Correlation Coefficients for Eight Measures of Organizational Effectiveness	66
III.- Spearman Correlation Coefficients for Five Dimensions of Job Satisfaction	67
IV.- T-Test for High and Low Groups of Job Satisfaction with <u>Work</u> and Three Measures of Organizational Effectiveness .	69
V.- T-Test for High and Low Groups of Job Satisfaction with <u>Promotion</u> and Three Measures of Organizational Effectiveness	71
VI.- T-Test for High and Low Groups of Job Satisfaction with <u>Pay</u> and Three Measures of Organizational Effectiveness . . .	72
VII.- T-Test for High and Low Groups of Job Satisfaction with <u>Supervision</u> and Three Measures of Organizational Effectiveness	74
VIII.- T-Test for High and Low Groups of Job Satisfaction with <u>Co-workers</u> and Three Measures of Organizational Effectiveness	75
IX.- Multiple Regression Analysis of Criterion Variable "General Effectiveness" with Five Dimensions of Job Satisfaction as Predictors	76
X.- Multiple Regression Analysis of Criterion Variable "Effectiveness by Goals" with Five Dimensions of Job Satisfaction as Predictors	77
XI.- Multiple Regression Analysis of Criterion Variable "Overall Effectiveness" with Five Dimensions of Job Satisfaction as Predictors	78
XII.- A Modified Five-Dimensional Job Satisfaction System for Elementary Schools Based on Wernimont's System View .	86

INTRODUCTION

In the study of social organizations, the concept of organizational effectiveness appears to be one of the most difficult and complex problems. Yuchtman and Seashore¹, for example, maintain that "we are badly in need of an improved conceptual framework for the description and assessment of organizational effectiveness"² and that we develop a conceptual scheme which allows comparison among organizations with respect to effectiveness. At present, they claim, a large amount of material is available with little understanding of these data.

The complexity of the problem seems to be related to the criteria employed in differentiating between effective and ineffective organizations. To Argyris³, organizations have a built-in tendency toward ineffectiveness, or disorganization. The question arises then whether this tendency toward ineffectiveness can be decreased and whether the tendency toward effectiveness can be strengthened.

Even though Kahn and Morse⁴ felt a great need for additional research on the relationship between organizational variables and

1 Ephraim Yuchtman and Stanley Seashore, "A System Resource Approach to Organizational Effectiveness", in American Sociological Review, Vol. 32, No. 6, 1967, p. 891-903.

2 Ibid., p. 891.

3. Chris Argyris, "Effectiveness and Planning of Change", in International Encyclopedia of the Social Sciences, Crowell Collier and Macmillan, 1968, p. 311-319.

4 Robert Kahn and Nancy Morse, "The Relationship of Productivity to Morale", in The Journal of Social Issues, Vol. 7, No. 3, 1951, p. 16.

criteria of organizational effectiveness as early as 1951, Katz and Kahn⁵ had to admit fifteen years later that "quantitative investigations of organizational effectiveness are surprisingly few in spite of the voluminous literature on organizations"⁶.

This study analyzes the criterion "job satisfaction" as a determinant of organizational effectiveness. Five different dimensions of job satisfaction will be discussed and substantiated, applied and interpreted. The organizational unit investigated is the elementary school.

The purpose of this research is to investigate the direction and strength of the organizational effectiveness-job satisfaction relationship for schools based, in part, on a test of Herzberg's⁷ theory of job motivation. In particular, the problem is (a) to examine which of the five dimensions of job satisfaction will be a determinant of school effectiveness and (b) to find out the best single determinant, or the best combination of determinants, of effectiveness.

Major aspects of this study are to examine the concept of effectiveness, to develop operational criteria for it, and to measure the concept in a specific organizational setting, namely that of schools. In this sense the concept is made functional, allowing for comparative organizational research and for developmental studies of effectiveness of the same organization over time.

5 Daniel Katz and Robert Kahn, The Social Psychology of Organizations, New York, John Wiley & Sons, 1966, vii-498 p.

6 Ibid., p. 368.

7 Frederick Herzberg, et al., The Motivation to Work, New York, John Wiley & Sons, 1967, v-157 p.

CHAPTER I

REVIEW OF THE LITERATURE

Because of a multiplicity of definitions and interpretations, the variables organizational effectiveness and job satisfaction will be analyzed and delineated in the first section of this chapter to provide a rational basis for both theory and research findings given in Section 2. The research hypotheses will be stated in the third part of this chapter.

1. The Variables

A review of the approaches to organizational effectiveness given in the literature and a conception of effectiveness used in this study will be followed by an examination of the multidimensional concept of job satisfaction.

(a) Organizational Effectiveness

No universally acceptable definition of organizational effectiveness seems to exist. Instead, the concept of organizational effectiveness is most often expressed in terms of criteria thought to be related to effectiveness. Ghorpade¹ stated that, as a consequence, the recent increase in the number of writings and research studies had not resulted in the formulation of a universally acceptable theory or a corresponding

¹ Jaisingh Ghorpade, Assessment of Organizational Effectiveness: Issues Analysis and Readings, Pacific Palisades, Cal., Goodyear, 1971, p. 5.

methodology for the assessment of effectiveness in organizations. Leitch even claimed that "organizational effectiveness depends upon whom we ask to define the concept"². Performance or productivity Georgopoulos, et al.,³ consider a type of organizational effectiveness. According to such a position,

...the performance of people in organizations may be considered as reflecting the relative attainment of important organizational objectives, and its prediction should contribute to our understanding of human behavior⁴.

Traditionally, effectiveness is defined in terms of the degree of goal achievement: the greater the degree of goal achievement, the greater an organization's effectiveness. "Concepts of organizational effectiveness typically focus on the degree to which the organization accomplishes its objectives"⁵. Etzioni⁶ defined an organizational goal as a desired state of affairs which the organization attempts to realize.

2 Paul Leitch, "A Study of Judgements of Organizational Effectiveness", in Proceedings of the Executive Study Conferences, Princeton, N.J., Educational Testing Service, 1968, p. 207.

3 Basil Georgopoulos, Gerald Mahoney and Nyle Jones, Jr., "A Path-Goal Approach to Productivity", in Gary Yukl and Kenneth Wexley, Editors, Readings in Organizational and Industrial Psychology, New York, Oxford University Press, 1971, p. 211-221.

4 Ibid., p. 211.

5 Chris Argyris, "Effectiveness and Planning of Change", in International Encyclopedia of the Social Sciences, David L. Sills, Editor, Macmillan and The Free Press, 1968, p. 311.

6 Amitai Etzioni, Modern Organizations, Englewood Cliffs, Prentice-Hall, 1964, p. 6.

Parsons⁷ went further in defining an organization as pursuing a specific goal. Because the emphasis in this research will be on the goal approach of organizational effectiveness, it is imperative to define organizational goals in more detail.

Perrow⁸ distinguished between six categories of goals, three with external and three with internal referents. The former he classified as societal, output, and investor goals; the latter he categorized as system, product, and derived goals.

Yuchtman and Seashore⁹ further delineated the goal approach to organizational effectiveness by distinguishing between the prescribed goal approach and the derived goal approach. The former focuses on the formal charter of the organization as a source of information concerning goals; the latter approach focuses on the functional theory of the organization in arriving at goals. The authors criticized the prescribed goal approach because of its failure to provide a rationale for the empirical identification of goals. The derived goal approach was criticized because it uses society, not the organization, as the basis for the evaluation of organizational effectiveness.

7 Talcott Parsons, Structure and Process in Modern Societies, Glencoe, Free Press, 1960, p. 17.

8 Charles Perrow, "Organizational Goals", in International Encyclopedia of the Social Sciences, David L. Sills, Editor, New York, Macmillan and The Free Press, 1968, p. 305-311.

9 Ephraim Yuchtman and Stanley Seashore, "A System Resource Approach to Organizational Effectiveness", in American Sociological Review, Vol. 32, No. 6, 1967, p. 891-903.

Although he admitted the difficulty of refuting such criticism, Price¹⁰ identified four guides which, if followed, could overcome this criticism: (1) focus on the major decision maker; (2) focus on organizational goals (as opposed to private goals of individuals); (3) focus on operative goals; (4) focus on intentions and activities. Webb¹¹ also supported the goal model: "In many ways...[it]...appears to be an objective, reliable, analytical tool for the measurement of organizational performance"¹² if care is taken in the formulation and statement of these goals.

If organizational goals are conceived as outputs by the organization for the system it is contained in, then the goal model can be considered an extension of the system model, Ghorpade¹³ suggested.

Three basic tenets of systems theory are: mutually interdependent elements, dynamic interaction of these elements, and adjustments throughout the system brought about by a change in the state of one element¹⁴. In an open system, the organization and its environment are continually involved in a give-and-take exchange. The elements

¹⁰ James Price, "The Study of Organizational Effectiveness", in The Sociological Quarterly, Vol. 13, No. 1, 1972(b), p. 5-6.

¹¹ Ronald Webb, "Organizational Effectiveness and the Voluntary Organization", in Academy of Management Journal, Vol. 17, No. 4, 1974, p. 663-677.

¹² Ibid., p. 664.

¹³ Ghorpade, Op. Cit., p. 7.

¹⁴ Raymond Forbes, "Organizational Success", in Journal of Systems Management, Vol. 25, No. 6, 1974, p. 38-39.

exchanged can be termed contributions and inducements: the output of the organization to the environment being the contribution (and this output, as Ghorpade suggested, can be measured in terms of degree of goal achievement); the input to the organization from the environment being its inducement to function. The organization functions then "as a continuous transforming medium, changing inducements into contributions"¹⁵.

Argyris¹⁶ thought it difficult to define organizational effectiveness by looking at the policies and practices of organizations. Instead, he suggested we climb to a higher level of abstraction. Using system theory, organizations can be said to increase in effectiveness if they obtain: "(a) increasing outputs with constant or decreasing inputs, or (b) constant outputs with decreasing inputs"¹⁷. If one adds to this the three core activities of an organization--achieving its objectives, maintaining itself internally, and adapting to its external environment--an organization "will be able to accomplish its three core activities at a constant or increasing level of effectiveness with the same or decreasing increments of inputs of energy"¹⁸.

A different interpretation of system theory as applied to organizational effectiveness was given by Etzioni¹⁹. While the actual

15 Ibid.

16 Chris Argyris, Integrating the Individual and the Organization, New York, John Wiley & Sons, 1964, vii-330 p.

17 Ibid., p. 123.

18 Ibid.

19 Amitai Etzioni, "Two Approaches to Organization Analysis: A Critique and a Suggestion", in Administrative Science Quarterly, Vol. 5, No. 2, 1960, p. 257-278.

effectiveness of an organization is determined by the degree to which it realizes its goals, Etzioni suggested measuring the efficiency of an organization through the amount of resources used to produce a unit of output and through an assessment of performance of organizations relative to one another. This system-model approach takes into account that the organization solves problems other than goal-achievement problems. However, a development of system-effectiveness indexes, Etzioni pointed out²⁰, will require an elaboration of organizational theory to supply a rationale for measuring certain aspects of the system and not others. If such rationale were supplied, a pattern of interrelations among the elements of the system could be defined that would make a system most effective in achieving a given goal, as compared to other combinations of the same pattern.

The system approach to organizational effectiveness was also advocated by Yuchtman and Seashore²¹. This approach, the authors claimed, leads to an improved conceptual framework in that it emphasizes both the distinctiveness of the organization as an identifiable social structure and the interdependence of the organization with its environment²². Competition for scarce and valued resources determines the

20 Etzioni, 1964, Op. Cit., p. 19.

21 Yuchtman and Seashore, Loc. Cit.

22 Yuchtman and Seashore's resource allocation approach was used by Hersom to measure organizational effectiveness; see Naomi Hersom, "Measuring the Resource Acquisition Behaviour of Schools", in The Canadian Administrator, Vol. 9, No. 2, 1969, p. 5-8.

organization's success. The value of such resources is derived from their utility as "generalized means for organizational activity rather than from their attachment to some specific goal"²³.

A distinction between the goal and the system approach of organizational effectiveness was already made in the late 1950's in a study by Georgopoulos and Tannenbaum²⁴. These researchers looked at the concept of effectiveness from the point of view of the system itself, of the total organization, rather than of some of its parts or of society in general. They proposed criteria that were system-relevant as well as applicable across organizations. Such criteria were derived from a common framework to which the concept of organizational effectiveness could be meaningfully related. Definitions of organizational effectiveness must then take two aspects into consideration: organizational means through which organizations sustain themselves, and organizational ends, the objectives of an organization. The authors distinguished three important objectives of organizations: (a) achieving the end results for which the organization is designed; (b) absorbing and assimilating changes; and (c) preserving organizational resources of human and material facilities. Based on these arguments, organizational effectiveness was defined by Georgopoulos and Tannenbaum as "the extent to which an organization as a social system, given certain resources and means,

23 Yuchtman and Seashore, Loc. Cit., p. 893.

24 Basil Georgopoulos and Arnold Tannenbaum, "A Study of Organizational Effectiveness", in American Sociological Review, Vol. 22, No. 5, 1957, p. 80-87.

fulfills its objectives without incapacitating its means and resources and without placing undue strain upon its members"²⁵.

While it is therefore possible to evaluate organizational effectiveness through either the goal or the system approach, the former was chosen for the purpose of this research because it was (a) comparatively easier to determine the goals the organization (the school) pursues than to measure effective allocation of resources, and (b) relatively more successful in overcoming deficiencies and rejecting criticisms than the system approach.

(b) Job Satisfaction

The term "job satisfaction" will be viewed and operationalized in this study mainly as a variable and criterion of organizational effectiveness. Generally, satisfaction can be defined as "the degree to which members of a social system have a positive affective orientation toward membership in the system"²⁶. Specifically--and this definition, based on the work of Smith, et al.,²⁷ was adopted for the purpose of this study--job satisfaction is defined as "the feelings a worker has about his job"²⁸.

25 Ibid., p. 82.

26 James Price, Handbook of Organizational Measurement, Lexington, Heath & Co., 1972(a), p. 156.

27 Patricia Smith, Lorne Kendall and Charles Hulin, The Measurement of Satisfaction in Work and Retirement, Chicago, Rand McNally, 1969, xiii-186 p.

28 Ibid., p. 6.

A distinction is made in the literature between "general satisfaction" and "satisfaction"²⁹. General satisfaction refers to "life in general", while satisfaction refers to specific dimensions of satisfaction. The former has no social system as its unit of analysis, Price³⁰ observed; it is more general than the referent for satisfaction.

The approach used in the present study to collect information about satisfaction is a specific approach. Not only is satisfaction restricted to the job, but to definite dimensions of that job. Satisfaction is measured in terms of actual fulfillment on these five dimensions: work, supervision, pay, promotions, and co-workers³¹. It is thus assumed possible that respondents can have different degrees of satisfaction for the different dimensions.

Support for the five dimensions of job satisfaction was given by Kahn and Morse³². Their definition of morale approximated the definition of job satisfaction adopted in this research: morale is "the sum of satisfactions which the individual experiences because of his membership

29 Arthur Brayfield, Richard Wells and Marvin Strate, "Interrelationships Among Measures of Job Satisfaction and General Satisfaction", in Journal of Applied Psychology, Vol. 41, No. 4, 1957, p.201-205.

30 Price, 1972(a), Op. Cit., p. 156.

31 Smith et al., Op. Cit., p. 6-11.

32 Robert Kahn and Nancy Morse, "The Relationship of Productivity to Morale", in The Journal of Social Issues, Vol: 7, No. 3, 1951, p. 8-17.

and involvement in an organization"³³. Katz and Kahn listed the following five major dimensions of satisfaction which characterize the experience of individuals in organizations: (1) the satisfaction a worker experiences from the operations he performs; (2) the satisfaction he derives from being a member in the subgroup of the organization; (3) the satisfaction he is offered because of his involvement in the total organizational structure; (4) the satisfaction he experiences with the immediate supervisor; and (5) the satisfaction he obtains from the reward system of the company³⁴.

An extensive analysis of the breakdown of the concept of job satisfaction into the five dimensions was given by Vroom³⁵. He found strong evidence that the amount of job satisfaction is directly related to pay, to supervision, to promotion, to co-workers, and to the work itself. A series of supportive studies was listed for each dimension³⁶.

Kahn and Morse³⁷ also rejected the blanket concept of satisfaction; they maintained that, although there was correlation among the several satisfaction dimensions, employees discriminated among the several sources of satisfaction which operate in an organizational situation.

33 Ibid., p. 8.

34 Ibid., p. 9.

35 Victor Vroom, Work and Motivation, New York, John Wiley & Sons, 1964, vii-331 p.

36 Ibid., p. 279.

37 Kahn and Morse, Op. Cit., p. 8.

An employee who is satisfied with his work may indicate great dissatisfaction with the supervisor, for example³⁸.

Further definitions of morale by Dubin³⁹ and by Guion⁴⁰, relate to the concept of job satisfaction adopted in this research. Dubin defined morale as "the zeal displayed for the accomplishment of a group goal"⁴¹. The term "zeal" pertains to interpersonal relations.

Thus, in the action phase of a group, the morale of its members turns out to be a product of constant association in the activity, and the mutual support for the individual's zeal that comes from it⁴².

Dubin's definition and concept of morale differs therefore from the definition of job satisfaction of this research in that it stresses interaction among group members as generator of zeal and enthusiasm. His concept is related, however, to the dimension "satisfaction with co-workers", one of the five dimensions of job satisfaction employed in this study.

The definition Guion constructed of seven previous definitions considered inadequate, brings out the multidimensional character of

38 Ibid., p. 10.

39 Robert Dubin, "Stability of Human Organizations", in Modern Organization Theory, Mason Haire, Editor, New York, John Wiley & Sons, 1967, v-324 p.

40 Robert Guion, "Industrial Morale (A Symposium), 1. The Problem of Terminology", in Personnel Psychology, Vol. 11, No. 1, 1958, p. 59-64.

41 Dubin, Op. Cit., p. 239.

42 Ibid.

morale: "morale is the extent to which an individual's needs are satisfied and the extent to which the individual perceives that satisfaction as stemming from his total job situation"⁴³. This definition, like Dubin's, also considers morale to be basically an attribute of the individual; it relates morale to the job, it implies that individuals have many needs that can be satisfied through the job, it applies to employees at any job, and it recognizes the role of the motivational process in morale.

Finally, the term job satisfaction is frequently found in discussions of cohesion. Etzioni⁴⁴ made a distinction between the two terms. If job satisfaction is defined as including all the satisfactions derived from a job, then cohesion refers to social relations on the job as a source of satisfaction. Cohesion is thus only one aspect of job satisfaction⁴⁵. To Price the concepts of cohesion and job satisfaction were very similar. Cohesion emphasizes liking of the other members⁴⁶. It encompasses, therefore, the dimensions "co-workers" and "supervision" investigated in the present research.

Job satisfaction is therefore conceived and operationalized as a specific concept restricted to five distinct dimensions of the job: the

43 Guion, 1958, Op. Cit., p. 62.

44 Amitai Etzioni, A Comparative Analysis of Complex Organizations, New York, The Free Press, 1968, vii-366 p.

45 Ibid., p. 197.

46 Price, 1972(a), Op. Cit., p. 157.

work itself, pay, promotions, supervision, and co-workers. It is defined as the feelings a worker has about his job.

2. Theory and Related Research

Emphasis in the first part of this section will be on relating and integrating the constructs of organizational effectiveness and job satisfaction into existing organizational theory. An overview of the literature bearing on these constructs will be given in the second part. Relevant research studies, leading to the formulation of the hypotheses tested in this research, will be grouped in the third part of this section under the following subheadings: (i) intrinsic factors, (ii) extrinsic factors, and (iii) other factors.

(a) Theoretical Considerations

Organizational theory, to Etzioni⁴⁷, is constructed on a high level of abstraction and deals with general propositions which apply equally to all organizations. But a general organizational theory cannot serve as a system model to be applied directly to the analysis of actual organizations. It can only serve as a frame for specification of the development of special theoretical models for the various organizational types.

47 Etzioni, 1964, Op. Cit., p. 18.

Etzioni⁴⁸ tried to overcome this deficiency by proposing two types of functional models, the survival and the effectiveness model. The survival model specifies a set of requirements which, if fulfilled, allow a system to exist. The effectiveness model, and here Etzioni borrowed Barnard's⁴⁹ definition, specifies a pattern of interrelations among the elements of the system which makes it most effective in the service of a given goal.

The effectiveness model distinguishes among functional alternatives that satisfy a requirement. Moreover, Etzioni claimed, the model tells us which alternative is most effective⁵⁰. The independent variables of this study, the dimensions of job satisfaction, can be conceived as functional alternatives in measuring organizational effectiveness. One of the alternatives could be a better indicator of effectiveness than another.

The Barnard-Simon⁵¹ theory of organizational equilibrium was based on the survival model. It is basically a theory of motivation, a statement of the conditions under which an organization can induce its members to continue to participate and therefore assure organizational survival. An organization will continue to exist "only so long as the

48 Etzioni, 1968, Op. Cit., p. 78.

49 Chester Barnard, The Functions of the Executive, Cambridge, Mass., Harvard University Press, 1971, p. 43.

50 Etzioni, Op. Cit., p. 78-79.

51 Herbert Simon, Administrative Behavior, New York, The Free Press, 1965, 259 p.

contributions are sufficient to provide inducements in large enough measure to draw forth these contributions"⁵².

Path-goal theory was used by Georgopoulos, Mahoney and Jones⁵³, and Lawler and Porter⁵⁴ to explain the relationship of satisfaction with other variables, mainly with absenteeism and turnover. According to this theory, people are motivated to do things they feel have a high probability of leading to rewards they value:

When a worker says he is satisfied with his job, he is in effect saying that his needs are satisfied as a result of having his job. Thus, path-goal theory would predict that high satisfaction will lead to low turnover and absenteeism because the satisfied individual is motivated to go to work where his important needs are satisfied⁵⁵.

Applied to the relationship between job satisfaction and job performance, Vroom⁵⁶, using path-goal theory, predicted that job satisfaction

...is closely affected by the amounts of rewards that people derive from their jobs and [.] level of performance is closely affected by the basis of attainment of rewards. Individuals are satisfied with their jobs to the extent to which their jobs provide them with what they desire, and they perform effectively

52 Ibid., p. 119.

53 Georgopoulos, Mahoney and Jones, Op. Cit., p. 211-213.

54 Edward Lawler and Lyman Porter, "Antecedent Attitudes of Effective Managerial Performance", in Organizational Behavior and Human Performance, Vol. 2, No. 1, 1967(b), p. 122-143, and Edward Lawler and Lyman Porter, "The Effect of Performance on Job Satisfaction", in Industrial Relations, A Journal of Economy and Society, Vol. 7, No. 1, 1967(a), p. 20-28.

55 Georgopoulos, Mahoney and Mann, Op. Cit., p. 224.

56 Vroom, 1964. Op. Cit., p. 246.

in them to the extent that effective performance leads to the attainment of what they desire⁵⁷.

Lawler and Porter⁵⁸ established a theoretical model to explain the relationship between performance and satisfaction. In this model performance leads to rewards; it distinguishes between two kinds of rewards and their connection to performance. Extrinsic rewards are one kind of reward (such as pay and promotion); the other are intrinsic rewards (such as the feeling of having accomplished something worthwhile). Neither type of reward is directly related to job satisfaction, nor is the relationship of extrinsic rewards and performance particularly clear and strong. In spite of these difficulties, Lawler and Porter claimed that:

This model would seem to predict that because of the imperfect relationship between performance and rewards and the importance of expected equitable rewards there would be a low but positive relationship between job satisfaction and job performance⁵⁹.

This prediction they tested on a sample of managers and found to be supported by the data collected. Although the correlation was not large, it was substantially larger than the median correlation between satisfaction and performance given in Vroom's review⁶⁰. They concluded that it was desirable for organizations to develop a strong relationship

57 Ibid.

58 Lawler and Porter, 1967(b), Op. Cit., p. 23.

59 Ibid.

60 Ibid., p. 25.

between satisfaction and performance: the less positive the relationship between satisfaction and performance, the less effective the organization.

If this relationship were shown to be true, it would mean that a measure of the relationship between satisfaction and performance would be a helpful diagnostic tool for examining organizations⁶¹.

A theoretical analysis of the motivational basis of organizational effectiveness, according to Katz and Kahn⁶², is more an application of general principles of social psychology than a summary of empirical findings from organizational studies. An exception is a consistent body of findings in industrial social psychology which demonstrates that the more varied, complex, and challenging tasks result in higher job satisfaction. Based on these findings, Katz and Kahn concluded that higher job satisfaction would also relate positively to performance, commonly discussed in the literature under the heading of organizational effectiveness or success⁶³. In particular, Katz and Kahn predicted that, from a theoretical basis, involvement in the work itself would result in greater quantity and better quality of productive output. They restricted their prediction to workers who did not work on an hourly basis: "As the job increases in complexity, variety and responsibility, the individual has increased opportunity to express his skills

61 Ibid., p. 28.

62 Daniel Katz and Robert Kahn, The Social Psychology of Organizations, New York, John Wiley & Sons, 1966, p. 368.

63 Ibid., p. 385.

and abilities through performance on the job"⁶⁴. High productivity is characteristic of this motive pattern.

Likert⁶⁵ also claimed that if there is limited task involvement, when work is routine and repetitive, chances for a positive relationship between job satisfaction and performance appear indeed reduced. However, where these tasks are more varied and require more skill and expertise, the expected positive correlation does occur: "For professional work there is a positive relationship between job satisfaction and performance"⁶⁶.

The statement that people who do more difficult and more skilled tasks get more rewards from their work in the form of job satisfaction is furthermore supported by Hull and Kolstad⁶⁷, and by Thorndike, et al.,⁶⁸. The former concluded that people in highly skilled trades responded with greater satisfaction about their work than did unskilled labour; the latter confirmed the increase in the amount of job satisfaction that comes with higher skill and more complex work.

Job satisfaction is generally regarded as one criterion of organizational effectiveness. Guion stated that it is a fallacy to assume

64 Ibid., p. 389.

65 Rensis Likert, New Patterns of Management, New York, McGraw-Hill, 1961, p. 16.

66 Ibid.

67 Hull and Kolstad, in Dubin, 1968, Op. Cit., p. 70.

68 Thorndike, Uhrbrock and Super, in Dubin, 1968, Op. Cit., p. 70.

that there is a general factor in a criterion, in this case job satisfaction, that explains and predicts everything⁶⁹. Only when criterion dimensions are shown to be related is there some point in combining them into a general composite. Where they are clearly independent, however, predictions should also be independent⁷⁰. An identification of these dimensions and a determination of their independence levels, Guion suggested, can be accomplished through factor analysis⁷¹. Such analysis provides the technique by which the dimensions of morale can be identified and defined; it requires preliminary hypothesizing, then measurement, then verification. The relative importance of the independent dimensions should not be judged prior to validation research but should instead be judged after the empirical data have been collected.

The positive relationship between effectiveness and job satisfaction was supported by other theorists. Brayfield and Crockett⁷² pointed out as early as 1955 "that employee satisfaction directly affects performance"⁷³, that it affects the quality and quantity of an individual's output, and that it lifts production. Likert⁷⁴ used job satisfaction

69 Robert Guion, "Criterion Measurement and Personnel Judgments, in Personnel Psychology, Vol. 14, No. 2, 1961, p. 145.

70 Ibid.

71 Guion, 1958, Op. Cit., p. 63-64.

72 Arthur Brayfield and Walter Crockett, "Employee Attitudes and Employee Performance", in Psychological Bulletin, Vol. 52, No. 4, 1955, p. 396-424.

73 Ibid., p. 404.

74 Likert, 1961, Op. Cit., p. 15-16.

and employee motivation as two of several criteria of organizational effectiveness. Price further supported this contention by assuming that morale--defined in Barnard's⁷⁵ terms as the degree to which individuals' motives are gratified--is generally and positively related to effectiveness⁷⁶.

In summary, four models--the effectiveness model, the path-goal model, the performance-reward model, and the task-complexity model--were identified as possible theoretical frameworks for predicting relationships between organizational effectiveness and job satisfaction. Of these models, Etzioni's effectiveness model seemed best suited as a theoretical framework for analyzing and classifying the variables of this research; it allowed each dimension of job satisfaction to be a functional alternative for determining organizational effectiveness.

(b) An Overview of the Literature

Results of studies that explore the relationship between productivity and morale, job satisfactions, supervisory practices, and group cohesiveness, Georgopoulos, et al.,⁷⁷ claim, have been inconsistent and inconclusive, pointing at the complexity of the problem, and suggesting a number of hypotheses. As reason for this complexity they give "both individual and situational, both phenomenal and objective [.] both

75 Barnard, Op. Cit., p. 56.

76 Price, 1972(b), Op. Cit., p. 5.

77 Georgopoulos, et al., Op. Cit., p. 211.

rational and non-rational factors"⁷⁸.

Mott came to a similar conclusion:

...as in so many other areas of sociology, the literature is examined with contradictory findings. A classic example is the many attempts to relate productivity and job satisfaction. Some early findings showed the two to be related, and on this foundation certain industrial social scientists have constructed whole programs for the management of men. Ensuing studies produced contradiction, however. Productivity was found to be negatively related or sometimes simply unrelated to job satisfaction⁷⁹.

Lawler and Porter suggested one explanation for these inconsistent findings:

Many of the earlier studies seemed to have assumed implicitly that a positive relationship existed. Little attention was given to trying to understand why job satisfaction should lead to higher performance⁸⁰.

A second explanation was given by Brayfield and Crockett:

In view of the methods of measurement used, it is not surprising that dozens of studies designed to show relationships between employee job performance and employee job satisfaction failed to do so⁸¹.

Part of the reason for the conflicting findings, Strauss and Sayles⁸² hypothesized, could be the many different ways in which morale has been conceived and defined. Only if morale means employees'

78 Ibid., p. 211.

79 Paul Mott, The Characteristics of Effective Organizations, New York, Harper & Row, 1972, p. 37.

80 Lawler and Porter, 1967(a), Op. Cit., p. 223.

81 Brayfield and Crockett, Op. Cit., p. 397.

82 George Strauss and Leonard Sayles, Personnel-The Human Problem of Management, Englewood Cliffs, Prentice-Hall, 1967, p. 135.

attitudes toward the company as a whole is there little evidence that high morale is associated with high productivity⁸³.

In analyzing these positive and negative results, Haire⁸⁴ qualified the concept of morale. Not only did he see the meaning of the term as uncertain, but he also criticized the general implicit assumption that morale and productivity are closely related. Most of the things called morale, Haire claimed, "did not seem to be conspicuously present or absent in high production groups. The high groups had about as much job satisfaction and feeling of accomplishment as the lower groups"⁸⁵. To link satisfaction to productivity, activities have to be guided so that they are seen to be means for the satisfaction of needs of the people involved.

Vroom⁸⁶ examined evidence from research conducted in both laboratory and field situations on the effects of supervision, the work group, job content, wages, and promotional opportunities on performance. He concluded that many of the findings support the view that employees "perform most effectively when performance is a means of attaining goals which are extrinsic to the content of the work"⁸⁷.

83 Ibid.

84 Mason Haire, Psychology in Management, New York, McGraw-Hill, 1956, vii-212 p.

85 Ibid., p. 154.

86 Vroom, 1964, Op. Cit., p. 211-266.

87 Ibid., p. 226.

The review of the literature by Vroom indicated positive relationships between measures of job satisfaction and one or more measures of performance in 20 of 30 studies, with a median correlation of .14. While he was not impressed by the magnitude of these correlations, he found the consistency of the direction of the relationship convincing⁸⁸.

A similar, more recent, review of the literature on job satisfaction and performance supports Vroom. Kuhn, et al.,⁸⁹ utilized Maslow's concept of need hierarchy to study the performance of non-managerial employees. He found the satisfaction of lower needs (security and social) to be more closely associated with job performance than the satisfaction of higher order needs (autonomy and self-actualization).

Herzberg, et al.,⁹⁰ covering much of the same literature as Brayfield and Crockett, summed up their review by stating that

...there is frequent evidence for the often suggested opinion that positive job attitudes are favorable to increased productivity. The relationship is not absolute, but there are enough data to justify attention to attitudes as a factor in improving the worker's output. However, the correlations obtained in many of the positive studies were low⁹¹.

88 Ibid., p. 175.

89 David Kuhn, et al., "Does Job Performance Affect Employee Satisfaction?", in Personnel Journal, Vol. 50, No. 6, 1971, p. 455-459 and 485.

90 Frederick Herzberg, et al., Job Attitudes: Review of Research and Opinion, Pittsburgh Psychological Service, 1957, 197 p.

91 Ibid., p. 103.

Most of the studies surveyed in his inventory of propositions, Price⁹² claimed, also support the assumption that morale is positively related to effectiveness. He pointed out that the literature is by no means unanimous on this point; however, he found rather a large number of studies on organizations which lend credibility to these assumptions. Price concluded that "it is best that these assumptions be evaluated, not by the number of supporting citations, but by systematic research"⁹³.

Merton stated that:

Although empirical generalizations are not theory, both empirical generalizations and theory are examples of the abstract formulations sought by organizational theorists⁹⁴.

The preceding reviews seem to lend support to the generalization that organizational effectiveness and job satisfaction are positively related. This view was supported through a variety of reasons advanced to explain the inconsistencies of the findings.

In the following section a selection of those research studies will be reviewed that pertain specifically, not to the global concept of job satisfaction, but to the five dimensions of job satisfaction and to their relationship to effectiveness.

92 James Price, Organizational Effectiveness-An Inventory of Propositions, Homewood, Ill., Richard Irwin, 1968, p. 5.

93 Ibid.

94 Robert Merton, Social Theory and Social Structure, 1957, p. 85, in Price, 1972, Op. Cit., p. 7.

(c) Relevant Research Studies

The studies that follow have been grouped according to their relatedness to the independent variables. Those pertaining to the intrinsic job factors, work and promotion, are listed first, followed by studies on the extrinsic factor, pay, and lastly by those on other job factors, supervision and co-workers.

(i) Intrinsic Factors: Work and Promotion

Most of the studies dealing with the relationship between job satisfaction with the work itself and organizational effectiveness, and between satisfaction with promotion and effectiveness, use Herzberg's general theory of job motivation^{95,96} to make predictions or to relate findings to it.

Herzberg's theory holds that certain "intrinsic" job features-- achievement, recognition, interesting work, responsibility and opportunity for advancement--can lead to high job satisfaction, but that their negative counterparts (lack of achievement, etc.) cannot lead to dissatisfaction. Positive events are dominated by references to intrinsic, motivator, or satisfier aspects. These produce satisfaction but are only a minor factor in producing dissatisfaction. Other dimensions in

95 Herzberg, 1967, Loc. Cit.

96 Frederick Herzberg, Work and the Nature of Man, New York, World, 1966, xx-203 p.

the work situation, termed dissatisfiers, can produce dissatisfaction but do not lead to satisfaction. Job satisfiers reinforce behaviour and motivate to more effective performance.

The Herzberg theory would predict then that the more pronounced the presence of the satisfiers work and promotion, the higher the degree of organizational effectiveness.

Several studies were reported linking Herzberg's two-factor theory and the intrinsic job factors investigated in the present study.

Ewen, et al.,⁹⁷ concluded that the results of tests of the Herzberg theory showed that satisfiers are more potent variables than dissatisfiers. Satisfaction with the satisfiers led to greater overall satisfaction than satisfaction with the dissatisfiers, while dissatisfaction with the satisfiers led to greater overall dissatisfaction. Intrinsic factors were therefore found to be the most important sources of both satisfaction and dissatisfaction, and the most potent factors in the work situation in terms of their relationship to overall job satisfaction. Significantly, Ewen, et al., did not interpret their findings as a reflection of the Herzberg theory but simply as a rejection of the concepts of "satisfiers" and "dissatisfiers"⁹⁸. Instead, they suggested the terms "primary" and "secondary satisfaction variables"

97 Robert Ewen, et al., "An Empirical Test of the Herzberg Two-Factor Theory", in Journal of Applied Psychology, Vol. 50, No. 6, 1966, p. 544-550.

98 Ibid., p. 549.

or, for the present, the terms "intrinsic" and "extrinsic classification"⁹⁹.

Four other studies lent support to this position. Wernimont¹⁰⁰ found the intrinsic factors to be more strongly related to overall satisfaction than the extrinsic factors. Graen¹⁰¹ reported that the intrinsic items contributed nine times as much variance to satisfaction as did the extrinsic dimensions and concluded that "a unidimensional theory of job satisfaction in which some variables have a more potent effect upon satisfaction than others is compatible with the results of this analysis"¹⁰². Lindsay, et al.,¹⁰³ found that Herzberg's motivator and hygiene variables accounted for nearly seventy-five percent of the variance in job satisfaction scores. Motivators accounted for nearly 3½ times as much variance (.57) as hygiene factors (.17). The results suggested that workers consider motivators their prime source of satisfaction. Lindsay, et al., concluded that the high variance for motivators indicated that motivators were a class of job-factor variables

99 Ibid.

100 Paul Wernimont, "Intrinsic and Extrinsic Factors in Job Satisfaction", in Journal of Applied Psychology, Vol. 50, No. 1, 1966, p. 41-50.

101 G.B. Graen, Addendum to "An Empirical Test of the Herzberg Two-Factor Theory", in Journal of Applied Psychology, Vol. 50, No. 6, 1966, p. 551-555.

102 Ibid., p. 554.

103 Carl Lindsay, Edmond Marks and Leor Gorlow, "The Herzberg Theory; A Critique and Reformulation", in Journal of Applied Psychology, Vol. 51, No. 4, 1967, p. 330-339.

which could be meaningfully related to job satisfaction. No significant differences were found for professional and non-professional groups¹⁰⁴. In a subsequent study, Graen and Hulin¹⁰⁵ measured the variances associated with the satisfaction or the dissatisfaction dimensions. The percentage of variance in satisfaction accounted for by work itself was 23%; that of promotion was 16%. The percentage of variance in dissatisfaction accounted for by work itself was 6% and that of promotion 9%.

These variance estimates lead one to deduce that satisfaction with the work itself may be a more pronounced indicator of organizational effectiveness than satisfaction with promotion, since it contributed more to job satisfaction and consequently motivated more strongly to better performance.

This interpretation and basis for prediction thus deviates from Herzberg's two-factor theory. Both Ewen, et al.,¹⁰⁶ and Graen and Hulin¹⁰⁷ simply reformulated Herzberg's theory into a traditional theory of job satisfaction. Under this theory, the presence of a variable contributes to job satisfaction, while the absence of a variable contributes to dissatisfaction, and vice versa.

104 Ibid., 336.

105 George Graen and Charles Hulin, "Addendum to an Empirical Investigation of Two Implications of the Two-Factor Theory of Job Satisfaction", in Journal of Applied Psychology, Vol. 2, No. 4, 1968, p.341-342.

106 Ewen, et al., Loc. Cit.

107 Graen and Hulin, Loc. Cit.

Two-factor and traditional theories thus specify different functions between job satisfaction variables and overall job satisfaction. Two-factor theory predicts non-linear relationships; traditional theory predicts essentially linear relationships¹⁰⁸. As such, studies based on traditional theory generally concluded that intrinsic variables were more strongly related to overall satisfaction-dissatisfaction than extrinsic variables. A large proportion of the variance in overall satisfaction seemed to be accounted for by intrinsic characteristics, while only a small proportion of the variance in overall dissatisfaction was accounted for by extrinsic variables¹⁰⁹.

The preceding comparison of the two-factor versus the traditional theory of job satisfaction was presented mainly to demonstrate that either theory would predict the same results for the relationship between the variables tested in the present research. While the Herzberg theory would not predict any difference in the strength of the motivators work and promotion, accumulated research evidence under the traditional theory would seem to indicate that the work itself could be a better predictor of effectiveness than promotion.

108 George Graen, "Testing Traditional and Two-Factor Hypotheses Concerning Job Satisfaction", in Journal of Applied Psychology, Vol. 52, No. 2, 1968, p. 366-371.

109 Charles Hulin and L.K. Waters, "Regression Analysis of Three Variations of the Two-Factor Theory of Job Satisfaction", in Journal of Applied Psychology, Vol. 55, No. 3, 1971, p. 211-217.

One educational study dealt with factors which affect satisfaction and dissatisfaction of teachers. Sergiovanni¹¹⁰ found that factors which tend to satisfy teachers and factors which tend to dissatisfy teachers were discontinuous. Satisfaction with promotion (advancement) and work itself were not found to be satisfiers but appeared to be bi-polar, possessing the potential to contribute to both satisfaction and dissatisfaction. "Whatever potential the factor advancement has as a satisfier appears to be lost for teachers under our present system"¹¹¹.

The bi-polarity of satisfaction with the work itself Sergiovanni interpreted to be based on the routine and maintenance tasks a teacher has to carry out, such as lunch duty, marking attendance, or helping students into snow suits¹¹². Responses of subgroups of teachers did not differ. Sergiovanni found tenure and non-tenure, male and female, elementary and secondary subgroups to respond non-significantly to sources of either job satisfaction or job dissatisfaction.

Another educational study examined the relationship between job satisfaction and the effectiveness of school counselors. Hansen¹¹³,

110 Thomas Sergiovanni, "Factors Which Affect Satisfaction and Dissatisfaction of Teachers", in The Journal of Educational Administration, Vol. 5, No. 1, 1967, p. 66-82.

111 Ibid., p. 78.

112 Ibid.

113 James C. Hansen, "Job Satisfaction and Effective Performance of School Counselors", in The Personnel and Guidance Journal, Vol. 46, No. 8, 1968, p. 864-869.

in his justification for conducting the study, claimed there was a lack of knowledge of this relationship for professional workers. Inconsistencies in the findings he attributed to the difference in evaluation of unskilled and skilled workers and of those providing a service. Multidimensional satisfaction and performance-criteria measures were used to examine the relationships between the counselors' job satisfaction ratings and their effectiveness ratings given by co-workers.

Hansen found five job satisfaction variables significantly related to counselor effectiveness. Among these were the intrinsic factors chances for advancement and interest and liking for the job itself. Ratings of co-workers were significantly correlated with those of clients, but not with those of administrators. Ratings were given on specific and on global criteria, similar to the goal-effectiveness statements and to the job-satisfaction dimensions in the present study.

In a NASA (National Aeronautics and Space Administration) study, Mott¹¹⁴ computed correlation coefficients for need fulfillment and organizational effectiveness scores. Two of the needs investigated resembled the intrinsic job factors under discussion. The correlation coefficient for "advancement in authority and status" and effectiveness was .21¹¹⁵. Three sub-categories were given for the factor "challenging

114 Mott, Loc. Cit.

115 Ibid., p. 110.

work": work itself, .25; full use of knowledge and skills, .36; and clear objectives toward which to work, .45¹¹⁶.

Mott concluded that both intrinsic factors were indicators of effectiveness. He interpreted his findings to relate closely to Herzberg's theory. However, rather surprisingly, Mott considered the factor "advancement in authority and status" to be a self-esteem or personal growth need, rather than a hygiene need¹¹⁷. He differs therefore from Herzberg and subsequent researchers who categorized this factor as an intrinsic job feature. Instead, Mott supports Wernimont¹¹⁸ who also classified promotion as an external variable.

Three other industrial studies dealt specifically with the relationship between job satisfaction with work itself and performance.

Berlyne¹¹⁹ held that intrinsic job satisfaction was aroused and maximized when the work itself provided sufficient variety, complexity and challenge to engage the ability of the worker. Through the development of intrinsic job satisfaction, high productivity and high overall-quality production can be reached. However, in a study of clerical

116 Ibid., p. 114.

117 Ibid., p. 112.

118 Paul Wernimont, "A Systems View of Job Satisfaction", in Journal of Applied Psychology, Vol. 56, No. 2, 1972, p. 173-176.

119 D.E. Berlyne, "A Decade of Motivation Theory", in American Scientist, Vol. 52, No. 4, 1964, p. 447-451.

employees, Katz, Maccoby and Morse¹²⁰ found that employees were more satisfied with their jobs in low-producing groups than in high producing groups. This finding was replicated in a study of railroad maintenance crews by Katz, Maccoby, Gurin and Floor¹²¹. An explanation of these findings can be found in the work of Likert¹²² who pointed out that routine and repetitive work affords little opportunity for differential task involvement and therefore little chance for a positive relationship between intrinsic job satisfaction and performance to appear. Where tasks required more skill and are more varied, Likert predicted positive correlations.

On the basis of Herzberg's two-factor theory of job motivation and of preceding research findings, one would therefore predict that the intrinsic factors job satisfaction with the work itself and job satisfaction with promotion will be positively related to organizational effectiveness.

120 D. Katz, N. Maccoby and Nancy Morse, Productivity, Supervision, and Morale in an Office Situation, Ann Arbor, Mich., Institute for Social Research, 1950, in Daniel Katz and Robert Kahn, The Social Psychology of Organizations, New York, John Wiley & Sons, 1966, p. 374.

121 D. Katz, et al., Productivity, Supervision, and Morale Among Railroad Workers, Ann Arbor, Mich., Institute for Social Research, 1951, in Katz and Kahn, Op. Cit., p. 374.

122 Likert, 1961, Op. Cit., p. 142-148.

(ii) Extrinsic Factor: Pay

In Herzberg's theory of job satisfaction pay is classified as a hygiene factor or a dissatisfier. Such extrinsic job features can only lead to job dissatisfaction but not to satisfaction¹²³. Job dissatisfiers will not reinforce behaviour that will motivate participants to more effective performance. Consequently, the Herzberg theory would predict that the dissatisfier pay will not lead to lower effectiveness nor will it tend to raise effectiveness.

Two empirical studies tested the Herzberg theory. Ewen, et al.,¹²⁴ reported that

...being satisfied with the dissatisfiers led to more overall satisfaction than being neutral with regard to the dissatisfiers for those Ss who were either dissatisfied or neutral with regard to the satisfiers¹²⁵.

They concluded that satisfaction with pay was insufficient to significantly increase overall satisfaction if satisfaction with the more potent variables, the satisfiers work and promotion, was at a low or neutral level. Yet for those who were satisfied with the satisfiers, satisfaction with pay could increase overall satisfaction¹²⁶.

123 Herzberg, 1967, Loc. Cit.

124 Ewen, et al., Loc. Cit.

125 Ibid., p. 547.

126 Ibid., p. 549.

Graen¹²⁷ supported the conclusion that satisfaction with pay was not as strongly related to overall satisfaction-dissatisfaction as satisfaction with work and promotion. While the intrinsic variables accounted for between 10% and 27%, pay, the extrinsic variable, accounted for between 3% and 8%.

Yet, Graen obtained different results in a later study¹²⁸. Based on Herzberg's two-factor theory he hypothesized that the dissatisfier "pay" should control a significant amount of variance in overall dissatisfaction and not in overall satisfaction. The results indicated though that pay showed a significant relationship on satisfaction (the percentage of variance was 6%) and not on dissatisfaction (reported variance 1%)¹²⁹.

Pay, therefore, does not only operate as a dissatisfier. Evidence supports Herzberg only to the extent that pay is a major source of dissatisfaction¹³⁰. An equally defensible view seems to regard satisfaction with pay as a continuous variable ranging from positive (satisfied) to negative (dissatisfied) feelings.

127 Graen, 1966, Op. Cit. p. 554.

128 Graen, 1968, Loc. Cit.

129 Ibid., p. 370.

130 Edward Lawler, Pay and Organizational Effectiveness: A Psychological View, New York, McGraw-Hill, 1971, p. 218.

Two sets of theories support this view. Discrepancy theories of satisfaction, such as Porter's¹³¹, hold that satisfaction is a function of the employee's comparison of what exists on his job with what he seeks on the job. Pay satisfaction results when existing pay corresponds to desired pay. Equity theories of satisfaction, such as Patchen's¹³², hold that pay satisfaction is a unidimensional continuum possessing both positive and negative values.

Most studies on pay satisfaction deal with one variable only. Consequently, Lawler¹³³ pointed out, it is often not possible to determine whether a relationship is due to the effect of the variable studied or due to another variable. To overcome this deficiency, Schwab and Wallace¹³⁴ suggested the use of multivariate statistical procedures to control multiple influences, and the use of partial correlation analysis to enable an examination of the relationship between any of a number of independent variables.

131 Lyman Porter, "A Study of Perceived Need Satisfaction in Bottom and Middle Management Jobs", in Journal of Applied Psychology, Vol. 45, No. 1, 1961, p. 1-10.

132 Martin Patchen, The Choice of Wage Comparisons, Englewood Cliffs, Prentice-Hall, 1961, xi-123 p.

133 Lawler, Op. Cit., p. 221.

134 Donald Schwab and Marc Wallace, "Correlates of Employee Satisfaction with Pay", in Industrial Relations, Vol. 13, No. 1, 1974, p. 78-89.

The perceived relationship between performance and pay, according to Vroom's theory of work motivation, is that

...the valence of effective performance increases as the instrumentality of effective performance for the attainment of money, increases, assuming that the valence of money is positive¹³⁵.

Lawler¹³⁶ showed that pay can be an effective incentive if employees see a clear connection between good job performance and their pay. Pay is a particularly potent incentive when it is seen as a reward for good performance, because it becomes a form of recognition and a mark of achievement, thereby satisfying several important needs. Lawler seems to suggest that pay can be a factor of good performance if some other conditions are met but that there is no indication that satisfaction with pay leads directly to increased performance.

In his investigation of occupational needs and their relationship to organizational effectiveness, Mott¹³⁷ found a low correlation (.08) for the dimension pay. He claimed that pay had only temporary effects; after each salary increase the individual feels less dissatisfied for a while. Mott concluded that satisfaction of hygiene needs in general did not increase organizational effectiveness¹³⁸.

135 Victor Vroom and Edward Deci, Management and Motivation, Baltimore, Penguin Books, 1972, p. 137.

136 Edward Lawler, "The Mythology of Management Compensation", in California Management Review, Vol. 9, No. 1, 1967, p. 11-22.

137 Mott, Loc. Cit.

138 Ibid., p. 112.

In summary, based on Herzberg's theory, a positive relationship between satisfaction with pay and organizational effectiveness cannot be predicted. However, in view of the conflicting studies testing the Herzberg theory which seem to suggest that satisfaction with pay is a satisfaction-dissatisfaction continuum, and in view of the inconclusive research findings linking pay with effectiveness, a relationship will be hypothesized.

(iii) Other Factors: Supervision and Co-workers

Predictions of the relationship between satisfaction with supervision and satisfaction with co-workers and organizational effectiveness have to be based on empirical theory rather than on a priori theory.

Two positions can be identified from the literature. Sergiovanni¹³⁹, Graen and Hulin¹⁴⁰, and Hulin and Waters¹⁴¹ classified supervision and co-workers as dissatisfiers according to Herzberg's theory. This rather liberal classification could account for the conflicting findings of these studies. While Sergiovanni concluded that supervision and interpersonal relations with peers were factors which contributed predominantly to job dissatisfaction, the other researchers found that these factors showed significant relationships on satisfaction and not on dissatisfaction.

139 Sergiovanni, Op. Cit., p. 68.

140 Graen and Hulin, Op. Cit., p. 341.

141 Hulin and Waters, Op. Cit., p. 213.

Ewen, et al.,¹⁴² and Graen¹⁴³ claimed that neither satisfaction with supervision nor satisfaction with co-workers could be adequately classified under the Herzberg theory. Consequently, in testing the theory, they restricted their investigation to the other three dimensions: work, promotion, and pay. This position has also been adopted for the purpose of the present research; supervision and co-workers are conceived as job satisfaction dimensions outside the Herzberg rationale and are classified under "Other Factors". For this reason the predictions that follow are solely based on empirical theory.

In reviewing the literature and theory on the relationship between supervision and production, Sales¹⁴⁴ upheld the assumption that employees will produce more when they are satisfied with the way they are being supervised. One of the assumptions of the human relations movement is, for instance, that democratic supervision is more acceptable to the worker than autocratic supervision. Production under satisfactory supervision becomes a means for satisfying ego-esteem needs of the employee¹⁴⁵. Morse and Reimer stated this position as follows:

...greater opportunity for regulating and controlling their own activities (provided by satisfactory supervision) [..] should increase the degree to which individuals could

142 Ewen, et al., Op. Cit., p. 547.

143 Graen, 1968, Op. Cit., p. 366.

144 Stephen Sales, "Supervisory Style and Productivity: Review and Theory", in Personnel Psychology, Vol. 19, No. 3, 1966, p. 275-286.

145 Ibid., p. 276.

express their various and diverse needs and could move in the direction of fully exploiting their potential while on the job¹⁴⁶.

The dimensions "supervision" and "co-workers" can be conceived as extensions of the term "cohesion". Back¹⁴⁷ defined cohesiveness as "the attraction of membership in a group for its members"¹⁴⁸. He indicated three bases for this attractiveness: the wish of individuals to belong to a group because they like the other members; the attraction of being a member of a group, and the group's mediating function of goals which are important for the members. Other studies support Back's definition^{149,150}.

Price maintained that the measurement of cohesion referred to some form of friendship choice, to a liking of other members. He sees the forms "satisfaction with supervision" and "satisfaction of co-workers" as dimensions of cohesion¹⁵¹.

146 Nancy Morse and Everett Reimer, "The Experimental Change of a Major Organizational Variable", in The Journal of Abnormal and Social Psychology, Vol. 52, No. 1, 1956, p. 128.

147 Kurt Back, "Influence Through Social Communication", in The Journal of Abnormal and Social Psychology, Vol. 46, No. 1, 1951, p. 9-23.

148 Ibid., p. 10.

149 Dorwin Cartwright and Alvin Zander, Group Dynamics: Research and Theory, Evanston, Ill., Row, Peterson & Co., 1953, p. 73-91.

150 Leon Festinger, Stanley Schachter and Kurt Back, Social Pressures in Informal Groups, Stanford, Cal., Stanford University Press, 1950, 197 p.

151 Price, 1972(a), Op. Cit., p. 157.

MacGregor¹⁵² theorized that supervisors can motivate workers to perform well in two ways. They can serve as potential aides in the worker's attainment of material and psychological rewards, or they can serve as potential barriers or threats in the attainment of such rewards. Based on this rationale, Bass¹⁵³ predicts that high productivity results from high job satisfaction rather than from job dissatisfaction, because high productivity can only be maintained by force and threat, when the worker's behaviour can be controlled. Bass concludes that satisfied workers (with supervision) tend to be more productive in most situations.

Cartwright and Zander¹⁵⁴ found four classes of variables to be consistently related to productivity: the supervisor's ability to play a differentiated role, the degree of delegation of authority or closeness of supervision, the quality of supportiveness or employee-orientation and the amount of group cohesiveness. Their findings on closeness of supervision are generally supported in the literature. Several studies were cited by Argyle, et al.,¹⁵⁵ for instance, as evidence that general employee-centered supervision, as opposed to close supervision, was found to be associated with higher output and higher

152 Douglas MacGregor, "The Staff Function in Human Relations", in Journal of Social Issues, Vol. 4, No. 1, 1948, p. 10-13.

153 Bernard Bass, "Ultimate Criteria of Organizational Worth", in Personnel Psychology, Vol. 5, No. 2, 1952, p. 162.

154 Cartwright and Zander, Op. Cit., p. 568.

155 Michael Argyle, Godfrey Gardner and Frank Cioffi, "Motivation and Performance: Some Specific Job Characteristics", in Victor Vroom and Edward Deci, Editors, Op. Cit., p. 173.

job satisfaction.

Additional evidence of a positive relationship between satisfaction with supervision and with co-workers was given by Mott¹⁵⁶. In two separate studies he cited the following correlations: competent and fair supervision, .34 and .42; team membership, .40 and .48. These coefficients were generally higher than those found for work, promotion, and pay, and Mott concluded that supervision and team membership were "highly related to effectiveness"¹⁵⁷.

Empirical evidence therefore strongly suggests that the dimensions satisfaction with supervision and satisfaction with co-workers are positively related to organizational effectiveness.

The hypothesized relationships between the five dimensions of job satisfaction and organizational effectiveness will be summarized in the next section.

3. Statement of Hypotheses

The research hypotheses that follow were derived from the general hypotheses elaborated earlier in this chapter.

Hypotheses I and II are concerned with the intrinsic factors work itself and promotion. The expected relationships between organizational effectiveness, with the elementary school as organizational unit, and satisfaction with the work itself and with promotion are as follows:

156 Mott, Loc. Cit.

157 Ibid., p. 110.

HYPOTHESIS I: Schools with teachers who have a high degree of satisfaction with their work have a higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with their work.

HYPOTHESIS II: Schools with teachers who have a high degree of satisfaction with promotions have a higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with promotions.

Although, from a theoretical basis, no relationship between pay and effectiveness is predicted, such a relationship will be hypothesized, phrased directionally, to allow for thoroughness and completeness in the investigation of the job satisfaction dimensions.

HYPOTHESES III: Schools with teachers who have a high degree of satisfaction with pay have a higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with pay.

The last two hypotheses deal with supervision and co-workers, previously classified as "Other Factors". The expected relationships between organizational effectiveness and satisfaction with supervision and co-workers are as follows:

HYPOTHESIS IV: Schools with teachers who have a high degree of satisfaction with supervision have a higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with supervision.

HYPOTHESIS V: Schools with teachers who have a high degree of satisfaction with co-workers have a higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with co-workers.

The experimental design employed in testing the preceding hypotheses will be presented in the following chapter.

CHAPTER II

EXPERIMENTAL DESIGN

The experimental design will be discussed under three sub-headings: the instrument, the sample, and the statistical procedure employed to test the hypotheses.

1. The Instrument

The instrument used in this study has two parts: a measure of organizational effectiveness and a measure of the dimensions of job satisfaction. Before each part of the instrument will be developed and substantiated, the goals used to measure effectiveness will be identified.

It is imperative, however, to support the position of basing the results of this study on the perceptions of teachers, before proceeding to describe the instrument.

Argyris¹ stated that a theory of organizations should differentiate between perceived and actual behaviour. He defines "perceived behaviour" as an individual's perception of reality: "It is a property of personality that all individuals evaluate experience according to their self-concept"².

1 Chris Argyris, Personality and Organization, New York, 1957, 291 p.

2 Ibid., p. 240.

In discussing methodological considerations, Bachman, et al.,³ pointed out that studies of organizations depend mainly on members' perceptions to provide measures of organizational characteristics: "The traditional procedure for handling such data is to characterize each organizational unit in terms of average ratings"⁴.

Further support was found in the work of Likert⁵, whose interaction-influence model assigns central importance to organizational characteristics as they are perceived by the individual. Causal variables [objectives, for instance] interact with personality to produce perceptions, and it is only through perceptions that the relationship between causal and end-result variables can be understood⁶.

(a) Identification of School Goals

The goal model requires the researcher to identify the goals an organization is pursuing. Previous discussion of the goal approach suggested three criteria that should be observed in the identification process. First, because of the difficulty in identifying the real goals

3 Gerald Bachman, Clagett Smith and Jonathan Slesinger, "Control Performance and Satisfaction: An Analysis of Structural and Individual Effects", in Journal of Applied Psychology, Vol. 4, No. 2, 1966, p. 127-136.

4 Ibid., p. 128.

5 Rensis Likert, New Patterns of Management, New York, McGraw-Hill, 1961, v-279 p.

6 Ibid., p. 196.

an organization actually pursues, Etzioni⁷ recommended that research concentrate on stated goals identified by participants of the organization. Secondly, Mahoney⁸ advocated the determination of a variety of intermediate goals in assessing organizational effectiveness, besides one overall criterion. Thirdly, Price⁹ pointed out that achievement of higher-order goals is more important as a measurement of effectiveness than achievement of lower-order goals.

An attempt has been made in this research to apply the preceding criteria to the following goals which have been identified, eclectically, as goals schools pursue:

1. Teaching generally
2. Teaching of basic skills and knowledge
3. Teaching the ability to reason and apply knowledge
4. Teaching the ability to adapt to the changing world
5. Teaching the development of a student's potential as an individual
6. Teaching the ability to relate to and communicate with others.

The first goal represents a measure of overall effectiveness; goals 2 to 6 are five intermediate goals of equal rank and weight.

Justification for the inclusion of these goals was based on five sources.

7 Amitai Etzioni, Modern Organizations, Englewood Cliffs, Prentice-Hall, 1964, p. 6.

8 Thomas Mahoney, "Managerial Perceptions of Organizational Effectiveness", in Management Science, Vol. 14, No. 2, 1967, p. 76-91.

9 James Price, "The Study of Organizational Effectiveness", in The Sociological Quarterly, Vol. 13, No. 1, 1972(b), p. 12.

The Canadian Education Association (CEA)¹⁰ conducted a nationwide study on goals schools actually pursue or should be pursuing. Respondents included students, educators, and members of the general public. The questions asked and the results obtained were as follows:¹¹ (N=1,540)

Questions 1 and 2 - Students go to school to learn and to acquire basic skills. In your opinion, which one of the following does (should) a student also acquire to the greatest degree as a consequence of his experience in your schools?

	<u>Does</u>	<u>Should</u>
1. a system of values	211	303
2. an ability to reason and apply knowledge	991	645
3. an ability to adapt to the changing world	225	541
4. other	95	42
no answer	18	9

Questions 3 and 4 - In your opinion, which of the following objectives do (should) your schools especially develop in today's students?

	<u>Does</u>	<u>Should</u>
1. the ability to communicate effectively	445	367
2. his potential as an individual	591	902
3. the ability to relate to others	423	261
no answer	81	10

While the ability to reason and to apply knowledge was felt to be the predominant goal of schools, respondents desired a de-emphasis of this goal in favour of the goal "development of an ability to adapt to the changing world". Development of the potential of an individual was seen as the most desirable objective. The ability to relate to and

¹⁰ Joseph Lauwerys, The Purpose of Education: Results of a CEA Survey, Toronto, Canadian Educational Association, 1973, 47 p.

¹¹ Ibid., p. 9.

communicate with others were considered goals which received more emphasis than was deemed desirable.

The committee on Living and Learning¹² investigated the aims and objectives of education in Ontario. Support was given for the pursuit of the following aims: adaptability to a changing world; acquisition of knowledge and skills as tools to cope with life; development of talents to understand views of others; effective expression of one's own views; opportunities of individuals for self-realization.

The 1975 ministerial guideline, Circular P1J1, The Formative Years¹³, represents a government statement of policies for primary and junior divisions of Ontario elementary schools. Development of the individual was cited as the ultimate goal of education. Acquisition of basic skills and knowledge and nurture of children's growth to share competently in the life of the community were considered two other important objectives.

A Phi Delta Kappan (PDK) study¹⁴ of the goals of education was based on a sample of 5,000 educators, 30,000 citizens, 16,000 professionals and 40,000 students. Respondents identified and ranked eighteen goals of the common public school, from kindergarten to high school graduation,

12 E.M. Hall and L.A. Dennis, Co-chairmen, Living and Learning, The Report of the Provincial Committee on Aims and Objectives of Education in the Schools of Ontario, Ontario Department of Education, 1968, 221 p.

13 Ministry of Education, The Formative Years, Circular P1J1, Ministry of Education, Ontario, 1975, 24 p.

14 Harold Spears, "Kappans Ponder the Goals of Education", in Phi Delta Kappan, Vol. 55, No. 1, 1973, p. 29-32.

each goal subdivided into three or four categories.

Skill development and the ability to communicate effectively were listed as the primary goals¹⁵. What was classified as "the development of student's potential as an individual" in the present study was ranked as a second, third and fourth goal in the PDK study: a feeling of self-worth, development of good character and self-respect, development of a desire to learn. The fifth goal, getting along with people, corresponds to "the ability to relate to others", the fifth sub-goal in this study. Goals six and seven--the development of reasoning abilities and skills to think and proceed logically--relate to "the ability to reason and apply knowledge". The ninth goal of the PDK study--the ability to adapt to a changing world--is identical to the fourth goal of this study.

An implied assumption in the CEA and PDK studies, and in Living and Learning, seemed to have been that goals of elementary and secondary schools did not differ substantially, with the possible exception of the development of basic skills and knowledge which received more emphasis in elementary schools. Additional support for the five intermediate goals identified in the present study may therefore be derived from a study by the National Association of Secondary School Principals¹⁶.

15 Ibid., p. 31-32.

16 Robert Havighurst, Frank Smith and David Wilder, "A Profile of the Large City High School", in The Bulletin - NASSP (National Association of Secondary School Principals), Vol. 55, No. 351, p. 3-104.

A sample of 670 secondary school principals were asked to assign importance scores to ten objectives "which seemed legitimately applicable to a majority of schools"¹⁷. Acquisition of basic skills and basic knowledge ranked first and second, respectively. Self-realization, development of a positive self-concept, ranked third; this objective was termed "development of a student's potential as an individual" in the present study. Adaptability to a changing world ranked fourth, development of skills of critical inquiry ninth. However, the range of the importance scores was small, from a score of 4.07 for the first rank to a score of 3.31 for the tenth rank¹⁸.

Findings of the preceding five studies were used as a basis for the identification of intermediate goals. Those goals were given equal importance because it could not be shown conclusively that one goal was a better measure of effectiveness than another.

(b) The Dependent Variable: Organizational Effectiveness

Georgopoulos and Mann¹⁹ developed a measure of effectiveness that can be adapted for general use. In a study of ten community general hospitals, 880 respondents supplied information for this measure of effectiveness. The respondents represented four classes: medical, nursing,

17 Ibid., p. 26.

18 Ibid., p. 25.

19 Basis Georgopoulos and Floyd Mann, The Community General Hospital, New York, Macmillan, 1962, p. 198-264.

technical, and administrative. Organizational effectiveness was defined by the investigators as an indicator of how well an organization was doing in achieving its objectives²⁰.

The investigators used four measures of effectiveness for hospitals: nursing care, medical care, non-comparative overall patient care, and comparative overall patient care. Most data were collected by questionnaire; others were gathered by interview to check the validity of the questionnaire.

The four questions that made up the instrument were phrased similarly; only the specific goals outlined above differed for each question; for example, the following question was used to rate the quality of overall patient care:

On the basis of your experience and information, how would you rate the quality of overall care that patients generally receive from this hospital? (Check one)

- Overall patient care in this hospital is outstanding
- Excellent
- Very good
- Good
- Fair
- Rather poor
- Overall patient care in this hospital is poor²¹

20 Ibid., p. 271.

21 Ibid., p. 209.

Price claimed that Georgopoulos and Mann exercised "uncommon care in the evaluation of the validity and reliability of their measures"²².

Georgopoulos and Mann attempted to validate their measure of quality of patient care in several ways²³. Their strategy was to obtain clinical judgments from professionals (physicians and nurses) and to compare them to various "hard-criteria" measures. The mean scores of all physicians in each hospital were calculated, ranked, and correlated with other data. The measure was found to be significantly related to the evaluation of the hospitals by a panel of outside physicians. It tended to be related to the infant mortality rate ($r=.47$), which in turn was significantly related ($r=.66$) to evaluation of the quality of nursing care by the doctors and nurses in each hospital. It was found also that the judgment of hospital employees other than physicians--nurses, laboratory assistants, and key administrative personnel--was significantly related to that of physicians. They seemed to suggest that other groups in the hospital were capable of making evaluations employing the same criteria as those used by physicians.

Following is a condensed summary of the six factors cited as indicators of validity: (1) the ten hospitals investigated differed in the quality of overall care for patients; combined hospital scores ranged from 1.99 to 2.94; (2) the relative standing of the ten hospitals

22 James Price, Handbook of Organizational Measurement, Lexington, Mass., Heath & Co., 1972, p. 106.

23 Georgopoulos and Mann, Op. Cit., p. 198-264.

on overall care, as evaluated by one category of respondent, correlated positively with the standing on the same measure as evaluated by the other categories of respondents; (3) inter-hospital differences on overall patient care could not be attributed to differences in responses due to particular characteristics of the medical and nursing staff; control factors like shift of work, different hospital divisions, full-time as against part-time work, and medical specialty did not affect the evaluation of overall care by the medical and nursing staff; (4) interview data were consistent with the ranking of the ten hospitals on the overall-care measure; (5) "customer satisfaction", as assessed by hospital personnel, was greater in those hospitals that ranked higher on the measure of overall patient care; (6) a positive relationship existed between the reputation of each hospital in the community, as assessed by hospital personnel, and the quality of overall patient care provided by each hospital²⁴.

The intercorrelations were positive and statistically significant. Hospitals which scored high on one measure were also likely to score high on each of the other measures. However, the degree of relationship between any two of the four measures varied. The highest relationship existed between the two overall care measures; the correlation for these measures was .96. The relationship between comparative overall care and (a) medical care was .78, and (b) nursing care was .82²⁵. The lowest

24 Ibid., p. 215-225.

25 Ibid., p. 227.

relationship existed between the medical care measure and the nursing care measure; the correlation for these measures was .60.

Support for Georgopoulos and Mann's measure was given by Mott²⁶ who called the measure "a promising lead [...] in attempting to construct a valid subjective measure of organizational effectiveness"²⁷.

Mott used the measure in a study of the Office of Administration at the National Aeronautics and Space Administration (NASA). To establish further validity for the measure, he computed product-moment correlations among the effectiveness items, a factor analysis of the items, overall effectiveness scores for the various units studied, and rank-order correlations of raters. He concluded that "the effectiveness index is a valid and inexpensive measure"²⁸.

Further support for the measure was cited by Price²⁹:

Use of the Georgopoulos and Mann measure in the study of different organizations would produce scores permitting comparison of the degree of effectiveness. Comparison would be possible because of the use of a standardized measure. Averaging scores would permit the comparison of effectiveness between single-goal organizations and multiple-goal organizations. If a multiple-goal organization assigns priorities to its different goals, then the average scores could be weighted³⁰.

26 Paul Mott, The Characteristics of Effective Organizations, New York, Harper & Row, 1972, xi-227 p.

27 Ibid., p. 21.

28 Ibid.

29 James Price, "The Study of Organizational Effectiveness", in The Sociological Quarterly, Vol. 13, No. 1, 1972(b), p. 3-15.

30 Ibid., p. 12.

Georgopoulos and Mann's measuring instrument of organizational effectiveness has been adapted for use in this study. Price suggests that the term "overall patient care" be changed to "teaching generally" for application in educational institutions³¹. Instead of Georgopoulos' and Mann's goals "nursing care" and "medical care", the present investigator substituted the five most important subgoals identified in the previous section.

The following questions were used to collect data on organizational effectiveness in schools:

- (1) On the basis of your experience and information, how would you rate the quality of TEACHING that students GENERALLY receive from your school? (check one)

Outstanding

Excellent

Very good

Good

Fair

Rather poor

Poor

- (2) (On the basis of your experience and information) How good, would you say, is the teaching of BASIC SKILLS AND KNOWLEDGE given to the students in this school?

- (3) (On the basis of your experience and information) How good, would you say, is the teaching of the ABILITY TO REASON AND APPLY KNOWLEDGE given to the students in this school?

- (4) (On the basis of your experience and information) How good would you say, is the teaching of THE ABILITY TO ADAPT TO THE CHANGING WORLD given to the students in this school?

31 James Price, Handbook of Organizational Measurement, Lexington, Heath & Co., 1972(a), p. 104.

- (5) (On the basis of your experience and information) How good, would you say, is the teaching of THE DEVELOPMENT OF A STUDENT'S POTENTIAL AS AN INDIVIDUAL given to the students in this school?
- (6) (On the basis of your experience and information) How good, would you say, is the teaching of THE ABILITY TO RELATE TO AND COMMUNICATE WITH OTHERS given to the students of this school?

The complete questionnaire on organizational effectiveness of schools is given as Appendix I.

Questionnaire results were scored in the following manner: scores of one to seven were assigned to each of the seven responses; the higher the score, the better was the quality of "teaching generally", for example. The scores of each respondent for the six questions were added and used to compute arithmetic means, by school, for all respondents.

(c) The Independent Variables: Dimensions of Job Satisfaction

The instrument that was used in this study to measure the five dimensions of job satisfaction, the "Job Description Index" (JDI), was developed by Smith, Kendall, and Hulin³². The construction of the instrument was based on the results of four studies, involving 988 subjects, and of a final study, involving 2,662 subjects. Five dimensions of job satisfaction were distinguished: work, pay, opportunities for promotions, supervision, and co-workers. These dimensions of the job were chosen because of their consistency with findings of factor-analytic studies of

32 Patricia Smith, Lorne Kendall, and Charles Hulin, The Measurement of Satisfaction in Work and Retirement, Chicago, Rand McNally, 1969, xiii-186 p.

job satisfaction. The dimensions work, supervision and co-workers consisted of eighteen words or word phrases each; the dimensions pay and promotions consisted of nine each. Respondents were requested to answer "yes", "no", or put a "?" if they could not decide.

The responses were scored on the basis of positive or negative replies to positive or negative items. For example, a "yes" reply to a positive item received a score of 3; similarly, a "no" reply to a negative item received a score of 3; a "yes" to a negative item received a score of 0, as did a "no" response to a positive item; a "?" to any item received a 1. The scores for each dimension were added; however, -- no overall satisfaction score was established³³.

The scoring key used in the present study was the final result of several other methods investigated by Smith, et al. In earlier studies, each participant's JDI was scored in four different ways. The four resulting scores were correlated with several different job satisfaction ratings of both interviewers and participants. Of these scoring methods, only one final method of scoring and selection of items was retained; it was the method which yielded the highest estimates of convergent and discriminant validity³⁴.

33 Ibid., p. 61.

34 A more detailed description is given in Charles Hulin and Patricia Smith, "Sex Differences in Job Satisfaction", in Journal of Applied Psychology, Vol. 48, No. 2, 1964, p. 88-92.

Smith, et al., reported consistent convergent and discriminant validity based on an extensive validation program³⁵. Vroom calls both types of validities "acceptable" and refers to the index as "the most carefully constructed measure of job satisfaction in existence today"³⁶.

In a 1974 study, Smith, et al.,³⁷ further determined the convergent and discriminant validity in a study involving civil service workers. They concluded that the JDI discriminated among the three groups of subjects investigated and that it was generally applicable to civil service workers³⁸.

In addition to the validity estimates, the JDI has other desirable characteristics. Scores are unaffected by acquiescence and yes-or-no-saying tendencies. The five scales, although not completely orthogonal, have the virtue of relatively low intercorrelations (.30 to .50). Factor analysis indicated that participants did think of job satisfaction along five separate dimensions; the factors extracted corresponded to the five dimensions that constitute the JDI. The five scales are short, easily

35 Ten studies were quoted during the time period 1961-63 alone; Ibid., p. 89.

36 Victor Vroom, Work and Motivation, New York, John Wiley & Sons, 1964, p. 100.

37 Patricia Smith, Olin Smith and James Rollo, "Factor Structure for Blacks and Whites of the Job Descriptive Index and its Discrimination of Job Satisfaction", in Journal of Applied Psychology, Vol. 59, No. 1, 1974, p. 99-100.

38 Ibid., p. 100.

administered, and have adequate split-half reliabilities (.80 to .88 corrected by the Spearman-Brown formula)³⁹.

Although Smith, et al., did not advocate combining the five dimension totals into an overall job satisfaction score, Ewen⁴⁰, in computing correlations of the five dimensions of job satisfaction with measures of overall job satisfaction, concluded that the dimensions could be combined into a single composite score. Such an unweighted total "would appear to be at least as good an estimate of overall satisfaction as the total obtained by weighting by importance"⁴¹. The measures used to estimate overall job satisfaction were (1) The Brayfield-Rothe Index⁴² (reliability .87; evidence of validity reported), (2) the General Motors Faces Scale⁴³ (no reliability; good convergent and discriminant validity reported). The correlation between the sum of the dimensions and the Brayfield-Rothe Index was reported as .73, .50, and .66 for three sample groups. The correlation between the sum of the dimensions and the General Motors Faces Scale was reported as .74, .70, and .55 for the same three sample groups⁴⁴.

39 Hulin and Smith, Op. Cit., p. 89.

40 Robert Ewen, "Weighting Components of Job Satisfaction", in Journal of Applied Psychology, Vol. 51, No. 1, 1967, p. 68-73.

41 Ibid., p. 72.

42 A.H. Brayfield and H.F. Rothe, "An Index of Job Satisfaction", in Journal of Applied Psychology, Vol. 35, No. 4, 1951, p. 307-311.

43 T. Konin, "The Construction of a New Type of Attitude Measure", in Personnel Psychology, Vol. 8, No. 1, 1955, p. 65-77.

44 Ewen, Op. Cit., p. 71.

Herman and Hulin⁴⁵ compared Porter's Need Satisfaction Questionnaire⁴⁶ with the Job Descriptive Index in an investigation of managerial satisfactions and organizational roles. They found the degree of convergence between the Porter items and the five JDI scales minimal and concluded that

Since the JDI has been shown to converge with other measures of job satisfaction [...] and the Porter instrument has not [...] it would seem that the domain of job satisfaction identified by these two instruments is rather heterogeneous⁴⁷.

A single dimension accounted for 88% of the common variance. Because of the lack of convergence and the failure to replicate the five-dimensional aspect of the Porter measure, Herman and Hulin doubted the conclusions drawn from job satisfaction studies using the Porter instrument⁴⁸.

2. The Sample

Three urban school boards, with a total of 136 elementary schools, constituted the population frame. Of these, 75 schools (or 55.1%) were randomly selected as the experimental units of this study.

45 Jeanne Herman and Charles Hulin, "Managerial Satisfactions and Organizational Roles: An Investigation of Porter's Need Deficiency Scales", in Journal of Applied Psychology, Vol. 57, No. 2, 1973, p. 118-124.

46 L.W. Porter, "Job Attitudes in Management: Perceived Deficiencies in Need Fulfillment as a Function of Job Level", in Journal of Applied Psychology, Vol. 46, No. 6, 1962, p. 375-384.

47 Herman and Hulin, Op. Cit., p. 123.

48 Ibid.

From each school-sample, 15% of the teacher population, with a minimum of three teachers for smaller schools, was randomly selected to constitute an experimental unit. Altogether, 322 elementary teachers completed the instrument, an average of 4.3 teachers for each school. Because of the number of smaller schools for which a minimum of three teachers was selected, 22.9% of the teacher population (of the 75 schools) were sampled altogether.

The investigator visited each participating school to explain the nature and purpose of the study, to receive the principal's permission to conduct the research, to select the teacher-sample, and to distribute the instruments.

Each instrument was contained in an open, blank envelope, together with an accompanying letter and a score sheet. Teachers were given three days to complete the instrument. At that time the investigator returned to each school to collect the sealed envelopes.

Teachers were guaranteed that their responses would be kept in strict confidence. However, as an incentive to participate in the study, principals were sent mean scores of organizational effectiveness and of the dimensions of job satisfaction. Such scores showed the principal his comparative standing with other participating schools.

Table I contains a summary of the population and sample statistics.

The data-producing sample does not include twenty-two invalid returns. The instruments were marked invalid because one or more items were left blank. The sample does also not include thirty-one response sheets which had not been completed by teachers and returned to the school

Table I.-
Population and Sample of Elementary Schools

School Board	Population*				Sample			
	(1) Schools per Board N	(2) Teachers per Board N	(3) Teachers Data Prod. N	(4) Percentage of 3/2	(5) Schools per Board N	(6) Teachers per Board N	(7) Teachers Data Prod. N	(8) Percentage of 7/6
A	54	1,006	109	10.8	25	509	109	21.4
B	49	1,109	114	10.3	25	570	114	20.0
C	33	429	99	23.1	25	325	99	30.5
Totals	136	2,544	322	12.7	75	1,404	322	22.9

*Source: Directory of Education, Ontario Ministry of Education, 1974-75.

secretary on the investigator's third return visit. Of these, seven instruments were received by mail at a later date but were not included in the data-producing sample because the analysis of the data had been commenced by that time. Altogether, therefore, 375 instruments were distributed, and 322 (or 86%) were included in the data-producing sample.

3. Statistical Procedures

From the teacher scores, arithmetic means were computed, by school, for the six items of organizational effectiveness, separately and combined, and for each of the five dimensions of job satisfaction.

The mean of the 75 school scores was computed to divide the scores of the independent variables, the job satisfaction dimensions, into high and low groups. These groups, with their corresponding effectiveness scores, were used to test the hypotheses. T-tests were selected to test for significant differences between groups, at a significance level of .05.

A stepwise multiple regression analysis was employed to estimate the predictor strength of the job satisfaction dimensions as determinants of organizational effectiveness.

To show the interrelationships among the dependent and independent variables, Spearman rank-order correlation coefficients were computed for the six measures of organizational effectiveness and for the five dimensions of job satisfaction.

The findings of this research are presented in the next chapter.

CHAPTER III

PRESENTATION OF RESULTS

The results of the statistical analysis of the data are presented in three sections. The first deals with the interrelationship of (a) the criteria used to define and measure the dependent variable, organizational effectiveness, and (b) the dimensions employed to measure job satisfaction. In the second section, the hypotheses are tested by computing t-values for each variable; the means, standard deviations, mean differences and probabilities are stated for groups of variables and are arranged to correspond to the five hypotheses. The third section contains a multiple regression analysis, using stepwise inclusion levels, to determine the respective contribution of each predictor to explained variance.

1. Interrelationship among Variables

(a) Organizational Effectiveness

Since organizational effectiveness was viewed in terms of an overall measure and five specific goals, and since these criteria were used to test the research hypotheses, it is important to show to what degree the criteria are interrelated.

Spearman correlation coefficients for the effectiveness criteria are presented in Table II. Based on an N of 75 schools, the rank-order correlations were significant at the 0.01 level, or better, and indicated

a close interrelationship of the six effectiveness criteria. The results lend support to the validity of the criteria employed.

Additionally, based on the reported relationships, the Spearman-Brown formula on odd-even estimates of reliability of the general effectiveness measures (2-6) was found to be $.82^1$; this figure represents an estimate of reliability of the total six-item measure of organizational effectiveness. The findings presented in Table II also provide support for the statistical reliability of the criteria when combined into a single-index score, "Overall Effectiveness (1-6)". Generally, the inter-correlations among the effectiveness criteria indicated that schools with high scores on one measure of effectiveness would also have high scores on each of the other measures.

(a) JOB DESCRIPTION (b) Job Satisfaction

Smith, et al.,² and Evans³ reported that the five dimensions of job satisfaction are independent and only moderately correlated. Spearman rank-order correlations were computed for the data of the present study and are presented in Table III. The results are similar to those obtained

1 For the formula used to compute the Spearman-Brown estimate of reliability see J.P. Guilford, Fundamental Statistics in Psychology and Education, New York, McGraw-Hill, 1965, p. 457.

2 Patricia Smith, Lorne Kendall and Charles Hulin, The Measurement of Satisfaction in Work and Retirement, Chicago, Rand McNally, 1969, xiii-186p.

3 Martin Evans, "Convergent and Discriminant Validities Between the Cornell Job Descriptive Index and a Measure of Goal Attainment", in Journal of Applied Psychology, Vol. 53, No. 2, 1969, p. 102-106.

Table II
 Spearman Correlation Coefficients
 for Eight Measures of Organizational Effectiveness*
 (N = 75)

Components	(1)	(2)	(3)	(4)	(5)	(6)	(2-6)	(1-6)
(1) General Effectiveness	--	.76	.50	.39	.59	.53	.70	.78
(2) Basic Skills and Knowledge		--	.57	.30	.56	.53	.75	.79
(3) Application of Knowledge			--	.59	.56	.52	.82	.79
(4) Adaptability to Change				--	.46	.38	.68	.66
(5) Development of Individual					--	.66	.83	.82
(6) Relating and Communicating						--	.79	.77
(2-6) All Goals Except General							--	.99
(1-6) All Goals Including General								--

*All scores are significant at the 0.01 level.

Table III
Spearman Correlation Coefficients
for Five Dimensions of Job Satisfaction
(N 75)

Dimensions	(1)	(2)	(3)	(4)	(5)
(1) Satisfaction with Work	--	0.19	0.30	0.43	0.51
(2) Satisfaction with Pay		--	0.24	0.23	0.04
(3) Satisfaction with Promotions			--	0.12	0.04
(4) Satisfaction with Supervision				--	0.45
(5) Satisfaction with Co-workers					--

in the previous studies in that no correlation in the matrix exceeded .51.

2. Tests for Significance

The statistical analysis explores the effects of several dimensions of job satisfaction as determinants of organizational effectiveness.

A single analysis technique, the t-test, has been employed in testing the significance of differences. Since it had been hypothesized that organizational units with members who are highly satisfied with the various dimensions of their job will have a higher degree of effectiveness than units with members who have a low degree of satisfaction, the mean score of each of the independent variables was used to divide the 75 school scores into two groups. The job satisfaction scores above the mean, together with their corresponding effectiveness scores, were compared with the job satisfaction scores below the mean. A two-tail test of significance was used throughout the analysis.

The first null-hypothesis stated that schools with teachers who have a high degree of satisfaction with their work do not have a significantly higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with their work.

Table IV shows that the null-hypothesis was rejected: there is a significant relationship between job satisfaction with work and organizational effectiveness ($P < 0.05$). Schools with teachers who are satisfied with their work are more likely to be effective than schools with

Table IV

T-Test for High and Low Groups of Job Satisfaction
with Work and Three Measures of Organizational Effectiveness

Dependent Variable	Group*	N	Mean	SD	MD	t	P
General Effectiveness (1)	1	40	5.063	0.511	0.260	2.30	0.024
	2	35	5.323	0.459			
Effectiveness by Goals (2)	1	40	4.620	0.527	0.254	2.27	0.026
	2	35	4.874	0.431			
Overall Effectiveness (1+2)	1	40	4.694	0.502	0.256	2.38	0.020
	2	35	4.950	0.415			

*Group 1 = schools with low scores on IV.

Group 2 = schools with high scores on IV.

teachers who are not satisfied.

The results indicated also that the probability level is not very different for the three stated measures of organizational effectiveness. The goal approach (2) seems to be as good an indicator of effectiveness as the global approach (1).

The second hypothesis, stated in null form, read that schools with teachers who have a high degree of satisfaction with their opportunities for promotion do not have a significantly higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with promotions.

The results of this second analysis are shown in Table V. The data resulted in a non-significant statistic indicating that the difference between the means could reasonably be attributed to chance. None of the dependent variable measures approached significance, and the null hypothesis was upheld.

Table VI displays the results of testing the third null hypothesis. It stated that schools with teachers who have a high degree of satisfaction with pay do not have a significantly higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with pay. As expected, and upholding the null hypothesis, no significant differences between high and low pay-effectiveness groups were found for any of the three dependent variable measures.

The fourth null hypothesis, stating that schools with teachers who have a high degree of satisfaction with supervision do not have a significantly higher degree of organizational effectiveness than schools

Table V
 T-Test for High and Low Groups of Job Satisfaction
 with Promotion and Three Measures of Organizational Effectiveness

Dependent Variable	Group*	N	Mean	SD	MD	t	P
General Effectiveness (1)	1	42	5.140	0.494	0.019	0.86	0.392
	2	33	5.241	0.513			
Effectiveness by Goals (2)	1	42	4.659	0.512	0.044	1.58	0.119
	2	33	4.840	0.468			
Overall Effectiveness (1+2)	1	42	4.740	0.488	0.032	1.52	0.132
	2	33	4.908	0.456			

*Group 1 = schools with low scores on IV.

Group 2 = schools with high scores on IV.

Table VI

T-Test for High and Low Groups of Job Satisfaction
with Pay and Three Measures of Organizational Effectiveness

Dependent Variable	Group*	N	Mean	SD	MD	t	P																				
General Effectiveness	1	39	5.148	0.513	0.076	0.65	0.518																				
	2	36	5.224	0.493				Specific Goals	1	39	4.653	0.478	0.178	1.56	0.123	2	36	4.831	0.509	General Effectiveness and Specific Goals	1	39	4.736	0.457	0.161	1.46	0.148
Specific Goals	1	39	4.653	0.478	0.178	1.56	0.123																				
	2	36	4.831	0.509				General Effectiveness and Specific Goals	1	39	4.736	0.457	0.161	1.46	0.148	2	36	4.897	0.493								
General Effectiveness and Specific Goals	1	39	4.736	0.457	0.161	1.46	0.148																				
	2	36	4.897	0.493																							

*Group 1 = schools with low scores on IV.

Group 2 = schools with high scores on IV.

with teachers who have a low degree of satisfaction with supervision, was rejected. Satisfaction with supervision, as indicated in Table VII, can be considered a determinant of organizational effectiveness.

The fifth null hypothesis predicted that schools with teachers who have a high degree of job satisfaction with co-workers do not have a significantly higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with co-workers.

As the results, shown in Table VIII, indicate, the null hypothesis was rejected. Of the four dimensions of job satisfaction, satisfaction with co-workers was found to be the best determinant of organizational effectiveness.

3. Multiple Regression Analysis

To establish the prediction value of each of the five dimensions of job satisfaction as determinants of organizational effectiveness, a multiple regression analysis was performed.

The three criterion variables--general effectiveness, effectiveness by goals, and overall effectiveness--used to test the hypotheses were also employed in the regression analysis. The results are shown in Tables IX - XI.

The independent variables, the five dimensions of job satisfaction, were entered one by one (stepwise inclusion) to isolate a subset of predictor variables that would yield an optimal prediction equation with as few terms as possible. The order of inclusion presented in the

Table VII

T-Test for High and Low Groups of Job Satisfaction
with Supervision and Three Measures of Organizational Effectiveness

Dependent Variable	Group*	N	Mean	SD	MD	t	P
General Effectiveness (1)	1	30	5.016	0.510	0.281	2.46	0.016
	2	45	5.297	0.468			
Effectiveness by Goals (2)	1	30	4.583	0.486	0.259	2.27	0.026
	2	45	4.842	0.484			
Overall Effectiveness (1 2)	1	30	4.655	0.472	0.264	2.41	0.018
	2	45	4.919	0.458			

*Group 1 = schools with low scores on IV.

Group 2 = schools with high scores on IV.

Table VIII

T-Test for High and Low Groups of Job Satisfaction
with Co-workers and Three Measures of Organizational Effectiveness

Dependent Variable	Group*	N	Mean	SD	MD	t	P																				
General Effectiveness (1)	1	34	5.009	0.492	0.321	2.90	0.005																				
	2	41	5.330	0.467				Effectiveness by Goals (2)	1	34	4.531	0.444	0.380	3.53	0.001	2	41	4.911	0.479	Overall Effectiveness (1+2)	1	34	4.612	0.430	0.369	3.58	0.001
Effectiveness by Goals (2)	1	34	4.531	0.444	0.380	3.53	0.001																				
	2	41	4.911	0.479				Overall Effectiveness (1+2)	1	34	4.612	0.430	0.369	3.58	0.001	2	41	4.981	0.456								
Overall Effectiveness (1+2)	1	34	4.612	0.430	0.369	3.58	0.001																				
	2	41	4.981	0.456																							

*Group 1 = schools with low scores on IV.

Group 2 = schools with high scores on IV.

Table IX
 Multiple Regression Analysis of Criterion
 Variable "General Effectiveness" with
 Five Dimensions of Job Satisfaction as Predictors
 (N = 75)

Predictors	R	R ²	R ² change	Beta
Satisfaction with Co-workers	0.463	0.214	0.214	0.390
Satisfaction with Supervision	0.509	0.259	0.045	0.230
Satisfaction with Work	0.509	0.259	0.000	-0.014
(Constant)				3.078

*The tolerance level was insufficient for the predictors Satisfaction with Pay and Promotion.

Table X .
 Multiple Regression Analysis of Criterion
 Variable "Effectiveness by Goals" with
 Five Dimensions of Job Satisfaction as Predictors
 (N = 75)

Predictors	R	R ²	R ² change	Beta
Satisfaction with Co-workers	0.416	0.173	0.173	0.387
Satisfaction with Supervision	0.451	0.203	0.030	0.151
Satisfaction with Promotion	0.469	0.220	0.016	0.137
Satisfaction with Pay	0.471	0.222	0.003	0.057
Satisfaction with Work	0.473	0.224	0.002	0.059
(Constant)				2.854

Table XI
 Multiple Regression Analysis of Criterion
 Variable "Overall Effectiveness" with
 Five Dimensions of Job Satisfaction as Predictors
 (N = 75)

Predictors				
Satisfaction with Co-workers	0.442	0.195	0.195	0.403
Satisfaction with Supervision	0.480	0.236	0.035	0.173
Satisfaction with Promotions	0.493	0.243	0.012	0.120
Satisfaction with Pay	0.494	0.244	0.002	0.047
Satisfaction with Work	0.496	0.246	0.002	-0.053
(Constant)				2.894

tables was determined by the respective contribution of each variable to explained variance. The predictor that explained the greatest amount of variance in the independent variable was entered first; the predictor that explained the greatest amount of variance in conjunction with the first was entered second. Thus the predictor listed first has the largest squared partial-correlation with the dependent variable.

The results indicated that the predictor "Satisfaction with Co-workers" was the best determinant of organizational effectiveness. The coefficient of multiple determination (R^2) varied from .173 for effectiveness by goals to .214 for general effectiveness. The latter coefficient would indicate that 21.4 percent of the variance in general school effectiveness was accounted for by satisfaction with co-workers. The remaining percentage of the variance, 78.6, was only reduced by an additional 4.5 percent by the predictor "Satisfaction with Supervision", leaving 74.1 percent still to be accounted for.

For all three criterion variables, the four predictors of job satisfaction, excluding satisfaction with co-workers, accounted for not more than five percent of the criterion variance. Of this percentage, Satisfaction with Supervision alone accounted for 3 to 4.5 percent. The data indicated therefore that the combination of two predictors, Satisfaction with Co-workers and Supervision, yielded the best predictive index for the three criterion variables.

The implications of these results are discussed in the succeeding chapter.

CHAPTER IV

DISCUSSION OF RESULTS

This chapter presents a discussion and interpretation of the findings under three subheadings. It begins with a consideration of the results in the light of existing organizational theory. This is followed by possible explanations for the non-significance of the dimension job satisfaction with promotion as determinant of effectiveness. Finally, the results are interpreted by relating them to previous research findings.

1. Theoretical Considerations

The results of this study, taken as a whole, do not provide clear support for the Herzberg theory. Of three hypothesized relationships only two favour the theory; the finding that the intrinsic variable, satisfaction with promotion, was not related to effectiveness was incompatible with the two-factor theory. However, the two predictions based on empirical generalizations were fully supported.

The findings indicated that schools with teachers who experienced a high degree of job satisfaction with co-workers, with supervision, and with the work itself also tended to perceive their schools to be effective in carrying out stated goals. This relationship was especially pronounced among schools with teachers who were highly satisfied with their peer relationships. With the exception of satisfaction with promotions and with pay, the results can also be interpreted to mean that

high job satisfaction is viewed by members of organizational units as instrumental to the attainment of goals, while low job satisfaction is viewed as impeding goal attainment. Expressed in terms of path-goal theory, these three dimensions of job satisfaction seem to be significant determinants of effectiveness in both cases. However, such an interpretation has to be viewed with caution since the third variable of the path-goal model--desired rewards from the job--is implied in job satisfaction but was not investigated separately in the present study.

Satisfaction with supervision and with co-workers were earlier classified as "other" factors rather than as dissatisfiers under the Herzberg theory. The present findings seem to support such a position. Had the two dimensions been identified as dissatisfiers, as suggested by Sergiovanni¹ and Graen and Hulin², the resultant hypotheses would have been rejected.

It could not be expected that all of the variance in organizational effectiveness could be accounted for by the dimensions of job satisfaction. Other social psychological variables, yet to be investigated, also have a determining influence on effectiveness. The portion of variance in effectiveness explained by satisfaction with co-workers,

1 Thomas Sergiovanni, "Factors Which Affect Satisfaction and Dissatisfaction of Teachers", in The Journal of Educational Administration, Vol. 5, No. 1, 1967, p. 66-82.

2 George Graen and Charles Hulin, "Addendum to an Empirical Investigation of Two Implications of the Two-Factor Theory of Job Satisfaction", in Journal of Applied Psychology, Vol. 52, No. 4, 1968, p. 341-342.

though pronounced when compared with the other four dimensions of job satisfaction, was still modest. Therefore, the concept of job satisfaction should be considered as a supplement, and not as a substitute, of other determinants of effectiveness.

A comparison of the findings showed that some dimensions of job satisfaction, notably satisfaction with co-workers and to a more limited extent satisfaction with supervision, were perceptively better indicators of effectiveness than satisfaction with work, promotions, and pay. This suggested that job satisfaction dimensions may function differentially with respect to the satisfaction-effectiveness relationship. Moreover, results for the five goal items as a measure of effectiveness were not uniformly lower than those for the general effectiveness measure; they confirmed the importance, suitability, and relevance of multiple goals as a measure of organizational effectiveness. It is furthermore possible to increase the correlation between general effectiveness and effectiveness as measured by goal attainment by eliminating or substituting individual goals with low correlations; the fourth goal, The Ability to Adapt to the Changing World, is an example of such a goal. The goal statements require further exploration so that a more conclusive statement of the relationship among goals and of their suitability as measures of organizational effectiveness can be made.

The results of this investigation indicated that organizational effectiveness can be predicted from a knowledge of teachers' job satisfaction in this sample of elementary teachers from three school board districts. The significant differences between low and high groups of

mean satisfaction scores, with corresponding effectiveness scores, held up for three of four dimensions investigated. This seems to imply that teachers in schools where jobs are characterized as satisfying with regard to co-workers, supervision, and the work itself, are likely to perceive a high degree of goal achievement and therefore, by definition, effectiveness. Since the dimensions of job satisfaction, in accordance with Etzioni's functional effectiveness model³, were considered functional alternatives of organizational effectiveness, allowing one alternative to be a better indicator of effectiveness than another, the preceding dimensions of job satisfaction appeared to be such indicators.

The most relevant functional alternative of school effectiveness seemed to be the dimension of satisfaction with co-workers, or fellow-teachers. This conclusion was supported by both t-test and multiple regression analysis. A less relevant, but still significant, alternative was the dimension of satisfaction with supervision, while satisfaction with the work itself was significant but only marginally relevant. It should be stressed, however, that these relationships may not necessarily be obtained for all schools in all school districts. To derive at such a conclusion on the basis of only one study involving three school districts would seem premature. The generality of the results is still to be determined.

3 Amitai Etzioni, "Two Approaches to Organizational Analysis: A Critique and a Suggestion", in Administrative Science Quarterly, Vol. 5, No. 2, 1960, p. 257-278.

The occurrence of satisfaction with co-workers as the best determinant of organizational effectiveness requires explanation. Existing theoretical constructs do not explain this phenomenon. Support for the present finding was given by Mott⁴, however. In two separate studies he found satisfaction with co-workers to be more highly correlated with effectiveness than any of the other four factors. Further support for the finding was given by Back⁵, and by Cartwright and Zander⁶. These researchers stressed the importance of the concept of cohesiveness, of the attraction of group membership. The desire to belong to a group, the attraction of being a member of a group, and the group's function as mediator for the achievement of organizational objectives which are important to its members seem to be particularly pronounced among teachers. Furthermore, as Price⁷ suggested, a liking of other members and a desire to form friendships with these members, both aspects of cohesion, appear to be strongly linked to, and indicative of, school effectiveness.

4 Paul Mott, The Characteristics of Effective Organizations, Harper & Row, 1972, p. 112.

5 Kurt Back, "Influence Through Social Communication", in The Journal of Abnormal and Social Psychology, Vol. 46, No. 1, 1951, p. 73-91.

6 Dorwin Cartwright and Alvin Zander, Group Dynamics: Research and Theory, Evanston, Ill., Row, Peterson & Co., 1953, p. 73-91.

7 James Price, Handbook of Organizational Measurement, Lexington, Heath & Co., 1972(a), p. 157.

Wernimont's "Job Satisfaction System"⁸ presents a logical and rational representation of employee job satisfaction which encompasses both the unidimensional and two-factor assertion. Wernimont viewed extrinsic factors as causes of intrinsic factors; the latter, in turn, result in output variables, in this case organizational effectiveness. Applied to the findings of this research, one interpretation of Wernimont's job satisfaction system is given in Table XII.

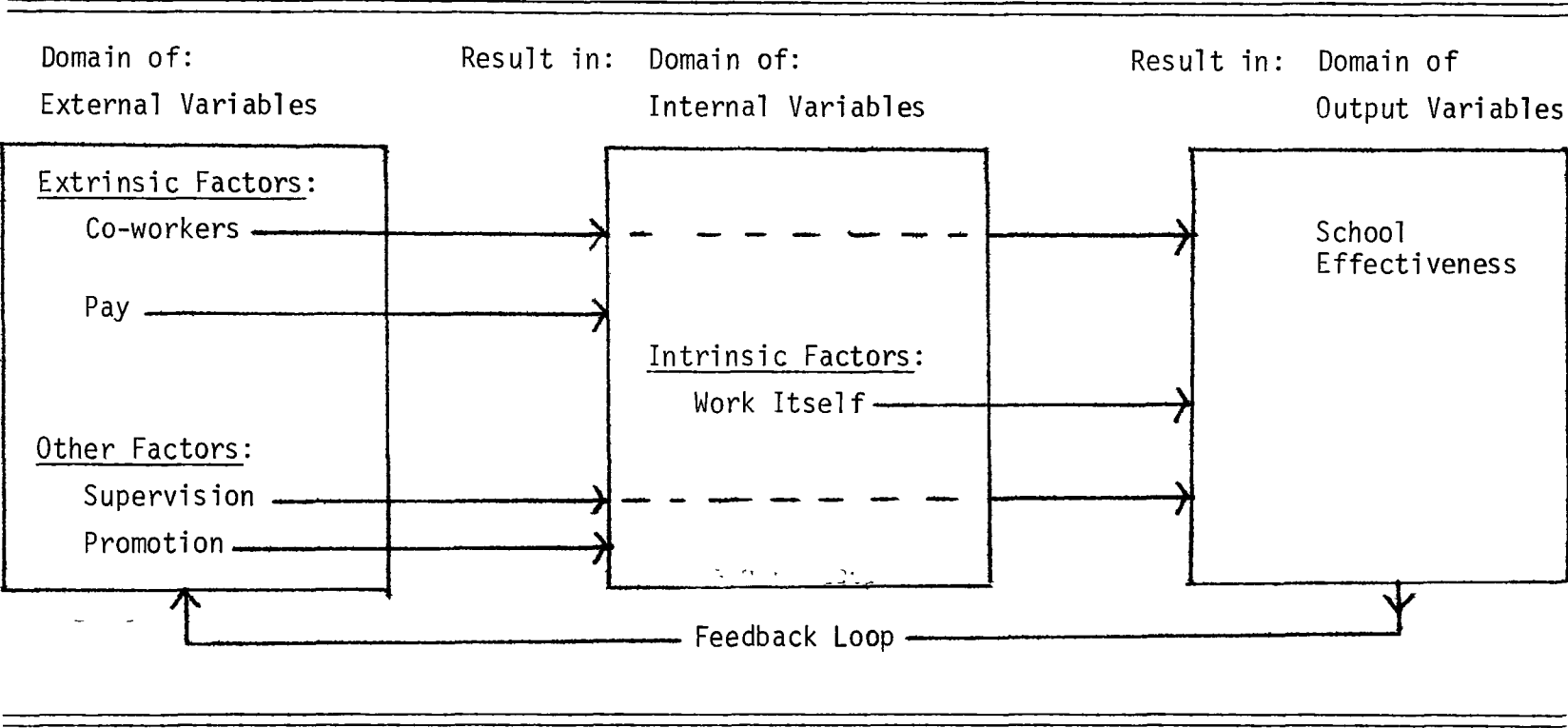
It should be noted that Wernimont's variable domains differ from those of Herzberg. Four of the job satisfaction dimensions were classified as external dimensions; promotion was considered under "Other Factors", rather than under "Intrinsic Factors". According to Wernimont's model, therefore, pay and promotion are situational variables which cause feelings of liking for the work itself, resulting in higher effectiveness; they have no direct bearing on effectiveness. Satisfaction with co-workers and supervision, two other external variables, should have the same effect. In the present research, however, they seemed to have had an effect not only on feelings of liking for the work but also on effectiveness directly.

Several factors in the present study caution against over-generalization of the results. The sample population include a variety of school sizes, male and female subjects, different age groups, and a diverse range of educational background and experience. None of these

⁸ Paul Wernimont, "A Systems View of Job Satisfaction", in Journal of Applied Psychology, Vol. 56, No. 2, 1972, p. 173-176.

Table XII

A Modified Five Dimensional Job Satisfaction System for Elementary Schools Based on Vermont's System View



DISCUSSION OF RESULTS

factors was analyzed separately, and it is possible that the findings could be the result of any of these factors. At one extreme it would seem possible, for instance, that the dimension "Satisfaction with Co-workers", in relation to effectiveness, is of more importance to schools with young, inexperienced, male or female teachers who are still in the process of obtaining a university degree. At the other extreme, schools with older, experienced, degree-holding, male or female teachers may ascribe less importance to satisfaction with co-workers. A similar line of reasoning may be applied to the other two dimensions, satisfaction with supervision, and the work itself. It would, therefore, be unwise to conclude that these dimensions of job satisfaction are generally determinants of organizational effectiveness, since this relationship could have resulted from the influence of these intervening variables.

In summary, the findings of this research partially supported Herzberg's theory of job motivation. Satisfaction with the work itself, one satisfier, was found to be a significantly more potent variable than the other satisfier, satisfaction with promotion. The latter motivator was positively but not significantly related to effectiveness. Satisfaction with pay, a dissatisfier, was found, as expected, to be unrelated to effectiveness. The results fully supported empirical theory for those dimensions of job satisfaction termed "other" job factors. Both satisfaction with co-workers and with supervision were found to be positively related to effectiveness. The two theories can be integrated into, and explained by, Wernimont's job satisfaction system.

2. Promotion as Determinant

The non-significant relationship between satisfaction with promotion and organizational effectiveness requires explanation.

To review briefly, Ewen, et al.⁹, among others, classified satisfaction with promotion as a satisfier, or motivator, in terms of Herzberg's theory. Based on this theory, it was predicted that organizational units with a high degree of satisfaction with promotion would have a higher degree of effectiveness than units with a low degree of satisfaction. Job satisfiers were expected to reinforce behaviour and motivate performance. If successful performance was rewarded in terms of intrinsic job satisfaction, such performance was expected to be repeated. However, while one motivator, work itself, showed the predicted relationship, the other motivator, opportunities for promotion, did not.

Several explanations for the failure of the satisfaction-with-promotion dimension to show to better advantage are possible.

The comparatively low mean scores of satisfaction with promotion is one explanation. The mean score for the 75 schools investigated was 8.24, with a standard deviation of 3.88. This score was considerably lower than the means of the other dimensions investigated (the adjusted means were: work, 19.01; supervision, 21.87; co-workers, 21.89; pay, 13.68) and also lower than the means for promotion reported

⁹ Robert Ewen, et al., "An Empirical Test of the Herzberg Two-Factor Theory", in Journal of Applied Psychology, Vol. 50, No. 6, 1966, p. 544-550.

by other researchers using the same measuring instrument (Smith, et al.,¹⁰ gave a pooled mean of 11.03, N = 1,945, across 21 organizational units; Hulin¹¹ reported a mean of 10.90, N = 319; Herman, et al.,¹² reported a mean of 10.11, N = 111). It is possible, therefore, that the scores for this dimension of job satisfaction were too low to allow a meaningful division into high and low groups in testing the hypothesis.

A second explanation can be found in the results of a study linking Herzberg's two-factor theory and the traditional theory of job satisfaction¹³. The two-factor theory held that those variables classified as satisfiers (the work itself and promotions) should control a significant amount of the variance in overall satisfaction but not in overall dissatisfaction. However, the results showed significant relationships on satisfaction and dissatisfaction. Specifically, the percentage of variance in satisfaction accounted for by promotions was 16 percent; that in dissatisfaction was 9 percent. The results clearly disconfirmed predictions of the two-factor theory. The findings that

10 Patricia Smith, Lorne Kendall and Charles Hulin, The Measurement of Satisfaction on Work and Retirement, Chicago, Rand McNally, 1969, xiii-186 p.

11 Charles Hulin, "Job Satisfaction and Turnover in a Female Clerical Population", in Journal of Applied Psychology, Vol. 50, No. 4, 1966, p. 280-285.

12 Jeanne Herman and Charles Hulin, "Managerial Satisfaction and Organizational Roles: An Investigation of Porter's Need Deficiency Scales", in Journal of Applied Psychology, Vol. 57, No. 2, 1973, p. 118-124.

13 Graen and Hulin, Op. Cit., p. 342.

satisfaction with promotions contributed to both satisfaction and dissatisfaction was therefore incompatible with the two-factor theory and could explain the non-significance of the relationship between effectiveness and promotions in the present study.

A third possible explanation lies in the peculiarity of the teaching profession with regard to promotion. An elementary teacher views his opportunity for promotion most likely in a change of status from teacher to administrator. Thus if he aspires to be mainly a teacher, he will view any advancement to an administrative position with mixed feelings.

This explanation was partially supported by the data in this study. Of the three school districts investigated, one was an urban, central-city district, with decreasing enrolment and limited opportunities for advancement, while another was a suburban, outer-city district, with increasing enrolment and more opportunities for promotion. One would have expected to find a lower mean score of satisfaction with promotion for the inner-city district; instead, the mean was higher (8.307) compared to that of the suburban district (8.033). A separate test for significance of Hypothesis II for those two school districts showed non-significant probability values for both cases. The data seemed to indicate that the teacher-scores on job satisfaction with promotions do not necessarily increase with a rise in actual opportunities for promotion.

It can thus be argued post hoc that the hypothesized relationship between job satisfaction with promotion and organizational

effectiveness could not have resulted due to the particular characteristics of the organizational unit investigated. Additional support for this argument will be given in the next section.

3. Relationship to Previous Research

The results of this investigation indicated that in this sample of elementary schools the job satisfaction dimensions co-workers, work itself, and supervision were determinants of organizational effectiveness while the dimensions promotion and pay were not. In this section, these findings will be related to those of other investigators.

In Hansen's study of school counselors¹⁴, satisfaction with the employer (supervision) was significantly related to effectiveness in promoting the general school programs. Satisfaction with an interest in and a liking for the job (the work itself) and relations with associates (co-workers) were significantly related to effectiveness in working with staff members. Based on those findings, Hansen concluded that the satisfaction dimensions co-workers, work, and supervision were frequently related to effective performance. The results of the present study support Hansen's findings on these dimensions of job satisfaction. However, Hansen also reported that counselors rated more effective were more satisfied with their "Security, Advancement, and Finance"¹⁵. This

14 James C. Hansen, "Job Satisfaction and Effective Performance of School Counselors", in The Personnel and Guidance Journal, Vol. 46, No. 8, 1968, p. 864-869.

15 Ibid., p. 866.

finding was not supported by the present research; neither satisfaction with promotion nor with pay was significantly related to effectiveness. A comparison of the results can be misleading though since (a) the three job satisfaction dimensions were grouped into one variable and (b) the effectiveness areas were different from those in the present study.

Job satisfaction with promotion did not appear as a positive polar factor, a satisfier in Herzberg terms, in Sergiovanni's¹⁶ study of teacher satisfaction and dissatisfaction:

Teaching offers little opportunity for concrete advancement (change in status or position) and in fact any particular teaching assignment could be considered as a terminal position [...]. Capitalizing on this factor, as a potential source of satisfaction, implies providing overt opportunities for advancement within the ranks of teachers¹⁷.

Sergiovanni's classification of satisfaction with promotion as a bi-polar factor, that is, one encompassing both satisfaction and dissatisfaction, together with his interpretation of this phenomenon, may account for the non-significant relationship of promotion and effectiveness in the present study. For teachers, satisfaction with promotion may be extraneous and unimportant, accounting for only a small portion of job satisfaction and job dissatisfaction.

16 Sergiovanni, Loc. Cit.

17 Ibid., p. 77-78.

Support for this view was provided by Graen¹⁸. In a study of home office employees, satisfaction with the work itself accounted for 27% of the total variance in satisfaction. Promotion, on the other hand, accounted for 10%, only slightly more than the dissatisfier, pay, which accounted for 8%.

With regard to studies testing the Herzberg theory, the data reported in this research would seem to approximate King's¹⁹ assessment of the predictive potency of the two-factor theory. Using a wide range of individual job factors, King found that fewer than 50% of the predictions of the two-factor theory were supported. Hulin and Waters arrived at similar results²⁰.

Coughlan's²¹ study of job satisfaction in relatively closed and open schools suggests that differences in teacher work values may affect job satisfaction. In relatively closed systems teachers tended to focus on vertical relations, among them supervision and pay. In open

18 George Graen, "Testing Traditional and Two-Factor Hypotheses Concerning Job Satisfaction", in Journal of Applied Psychology, Vol. 52, No. 2, 1968, p. 366-371.

19 N. King, "A Clarification and Evaluation of the Two-Factor Theory of Job Satisfaction", in Psychological Bulletin, Vol. 74, No. 1, 1970, p. 18-31.

20 Charles Hulin and L.U. Waters, "Regression Analysis of Three Variations of the Two-Factor Theory of Job Satisfaction", in Journal of Applied Psychology, Vol. 55, No. 3, 1971, p. 211-217.

21 Robert J. Coughlan, "Job Satisfaction in Relatively Closed and Open Schools", in Educational Administration Quarterly, Vol. 7, No. 2, 1971, p. 41-59.

systems, on the other hand, the focus was more on horizontal relations, especially colleague relations; teachers were more satisfied with their pay but more divided on satisfaction with co-workers. It is therefore possible that the degree of satisfaction with these dimensions will change if future studies were to concentrate on either open or closed systems; these changes may, in turn, affect the relationship between job satisfaction and effectiveness.

The results of this research can be said to support the empirical generalization cited by Vroom²², Kahn, et al.,²³, and Herzberg²⁴ and given as conclusion in their extensive reviews of the literature, that measures of job satisfaction and organizational effectiveness are positively related. These measures were found to be satisfaction with co-workers, with the work itself, and with supervision.

The generality of the present findings is limited, however, in view of the relatively small sample size. It cannot be argued that the satisfaction and effectiveness scores are representative of the total population of schools. For this reason, the possibility that these findings may not be replicated in subsequent studies using new sample populations must be recognized. It is conceivable, for instance, that urban

22 Victor Vroom, Work and Motivation, New York, John Wiley & Sons, 1964, p. 175.

23 David Kuhn, et al., "Does Job Performance Affect Employee Satisfaction", in Personnel Journal, Vol. 50, No. 6, 1971, p. 455-459.

24 Frederick Herzberg, et al., Job Attitudes: Review of Research and Opinion, Pittsburgh, Psychological Service, 1957, 197 p.

elementary schools differ from rural schools, that open schools differ from closed schools, or that elementary K-6 schools differ from elementary 7-8 schools. However, this study did determine a situation for which findings and interpretations of these findings seemed justified: three of five dimensions of job satisfaction were found to be determinants of effectiveness of elementary schools.

A summary and the conclusions of the study follow.

SUMMARY AND CONCLUSIONS

In the analysis of dimensions of job satisfaction as determinants of organizational effectiveness, it was found that four of five hypothesized relationships were upheld.

Schools with teachers who had a high degree of satisfaction with co-workers, with the work itself, and with supervision were found to have a higher degree of effectiveness than schools with low degrees of satisfaction with these dimensions.

However, the null hypothesis of satisfaction with promotion and effectiveness was not rejected, indicating that this relationship could be attributed to chance.

As expected, no significant differences were found between high and low school groups for satisfaction with pay and effectiveness.

The degree of satisfaction with pay and promotion, therefore, does not seem to be related to effectiveness: a low degree of satisfaction with these dimensions would not be a determinant of low organizational effectiveness.

Multiple regression analysis indicated that satisfaction with co-workers was the best single predictor of school effectiveness; of possible predictor combinations, satisfaction with co-workers and with supervision yielded the best predictive index.

It seems desirable for elementary schools to have a high degree of satisfaction with co-workers, supervision, and the work itself. Based on the findings of this research, such schools would have a higher degree of effectiveness in carrying out their teaching goals. In this

sense, measures of these three dimensions of job satisfaction could be helpful diagnostic tools for examining schools. Care must be taken not to conclude that these dimensions are causes of effectiveness; they are merely determinants in a synchronistic meaning.

The results contributed to organizational theory in three ways: (1) Herzberg's theory of job motivation was partially supported; (2) empirical generalizations of the relationship between organizational effectiveness and satisfaction with co-workers and with supervision were fully supported; (3) Wernimont's system view of job satisfaction was modified and expanded.

These generalizations have to be confined, however, to the population from which the samples were drawn; the results could be a function of intervening variables, such as open or closed schools, school size, age, sex, and teaching experience.

Several suggestions for future research emerge from this study. Such research might include: (a) relating the job satisfaction dimensions to measures of teachers' self-concepts to indicate the causes of job satisfaction; (b) relating the job satisfaction dimensions to different measures or organizational effectiveness; and (c) comparing and evaluating ranked, multiple school goals of students, teachers, administrators, and parents.

BIBLIOGRAPHY

Coughlan, Robert J., "Job Satisfaction in Relatively Closed and Open Schools", in Educational Administration Quarterly, Vol. 7, No. 2, 1971, p. 41-59.

The conclusion of the study, that job satisfaction may be different for teachers in closed and open schools, constituted one of the limitations of this study and led to a suggestion for further research.

Dubin, Robert, Human Relations in Administration, Englewood Cliffs, Prentice-Hall, 1968, v-538 p.

In Chapters III and IV the author clearly showed the place of motivation in organization activities; he also related the concept of task complexity as a factor of influence on job satisfaction to effective performance.

Etzioni, Amitai, Modern Organizations, Englewood Cliffs, Prentice-Hall, 1964, v-120 p.

The section on organizational goals was of particular relevance to this study: their nature and relationship to effectiveness; goal models contrasted with system models; and the effectiveness model as part of an overall system model. It provided a rationale for measuring effectiveness through goal attainment.

-----, A Comparative Analysis of Complex Organizations, New York, The Free Press, 1968, vii-366 p.

It further developed the concepts of goals and effectiveness analyzed in earlier writings with a view toward comparison of those concepts.

Ewen, Robert, et al., "An Empirical Test of the Herzberg Two-Factor Theory", in Journal of Applied Psychology, Vol. 50, No. 6, 1966, p. 544-550.

Results were reported that indicated that intrinsic job factors are more strongly related to both overall satisfaction and dissatisfaction than extrinsic factors. These findings were related to those of this study.

Georgopoulos, Basil and Floyd Mann, The Community General Hospital, New York, Macmillan, 1962, 264 p.

The authors developed a measure of organizational effectiveness based on the achievement of multiple goals that was adapted to this research.

Georgopoulos, Basil and Arnold Tannenbaum, "A Study of Organizational Effectiveness", in American Sociological Review, Vol. 22, No. 5, 1957, p. 80-87.

Organizational effectiveness was measured in terms of degree of achievement of organizational objectives. Prediction of effectiveness was attempted by combining measures into a single index.

Graen, George B., "Testing Traditional and Two-Factor Hypotheses Concerning Job Satisfaction", in Journal of Applied Psychology, Vol. 52, No. 2, 1968, p. 366-371.

Presented evidence that Herzberg's two-factor theory may not apply to job satisfaction with work itself, promotion, and pay. The study was used to interpret findings of this research.

Graen, George B. and Charles L. Hulin, "Addendum to an Empirical Investigation of Two Implications of the Two-Factor Theory of Job Satisfaction", in Journal of Applied Psychology, Vol. 52, No. 4, 1968, p. 341-342.

Herzberg's two-factor theory was tested against the traditional theory of job satisfaction. Identical variables to those used in the present study were classified as satisfiers and dissatisfiers; their relationship to satisfaction and dissatisfaction was investigated.

Guion, Robert, "Criterion Measurement and Personnel Judgments", in Personnel Psychology, Vol. 14, No. 2, 1961, p. 141-149.

The article helped clarify and formulate the structure of this research; for instance, it suggested a separate hypothesis for each independent variable, use of objectives to measure effectiveness, and multiple regression analysis to determine the predictive strength of each independent variable.

Hansen, James, "Job Satisfaction and Effective Performance of School Counselors", in The Personnel and Guidance Journal, Vol. 46, No. 8, 1968, p. 864-869.

In this study the author examined the relationship between job satisfaction and performance-effectiveness of school counselors. Those job satisfaction dimensions and effectiveness ratings applicable to the present research were identified and related to the findings of this study.

Herzberg, Frederick, Bernard Mausner and Barbara Snyderman, The Motivation to Work, New York, John Wiley & Sons, 1967, v-157 p.

The theory of job motivation was used as theoretical rationale in the present study; it served to formulate predictions and to interpret findings.

Kahn, Robert and Nancy Morse, "The Relationship of Productivity to Morale", in The Journal of Social Issues, Vol. 7, No. 3, 1951, p. 8-17.

One of the early studies in which the concept of morale was defined as the sum of five satisfaction dimensions; these resemble those used in this study.

Katz, Daniel and Robert Kahn, The Social Psychology of Organizations, New York, John Wiley & Sons, 1966, vii-498 p.

Chapter VI explores the concept of organizational effectiveness, while job satisfaction is discussed as a psychological basis of effectiveness in Chapter XII. The author discusses the relationship between these two variables which, together with other sources, led to the formulation of the present hypotheses.

Lawler, Edward and Lyman Porter, "The Effect of Performance on Job Satisfaction", in Industrial Relations, A Journal of Economy and Society, Vol. 7, No. 1, 1967, p. 20-28.

An important study linking job satisfaction with performance; it guided the interpretation of the results of the present research.

Mott, Paul, The Characteristics of Effective Organizations, New York, Harper & Row, 1972, xi-227 p.

The occupational needs employed approximated the job satisfaction dimensions in the present study. The findings related to Herzberg's theory and were used as empirical evidence in support of the research hypotheses.

Price, James, Handbook of Organizational Measurement, Lexington, Heath & Co., 1972(a), 210 p.

This book is an important source for researchers in administration; it contains a list of measuring instruments, selected on the basis of reliability and validity, of major organizational variables.

-----, "The Study of Organizational Effectiveness", in The Sociological Quarterly, Vol. 13, No. 1, 1972(b), p. 3-15.

The author specified guides that researchers could follow to overcome criticism of the goal approach to organizational effectiveness, an approach the author favoured over the system resource approach. A general measure of effectiveness was suggested based on Georgopoulos and Mann's study of hospitals; this measure was adapted to the problem of the present research.

Sergiovanni, Thomas, "Factors Which Affect Satisfaction and Dissatisfaction of Teachers", in The Journal of Educational Administration, Vol. 5, No. 1, 1967, p. 66-82.

This study investigated dimensions of job satisfaction in the light of Herzberg's theory of job motivation. The findings applied to a population of teachers and were related to the results of the present research.

Smith, Patricia, Lorne Kendall and Charles Hulin, The Measurement of Satisfaction in Work and Retirement, Chicago, Rand McNally, 1969, xiii-186 p.

In this handbook measures of job satisfaction used in the present research were developed, based on four studies involving over 3,500 subjects. The measure distinguished between five separate dimensions of job satisfaction: work, pay, supervision, promotions, and co-workers. Means, standard deviations, and validity and reliability estimates were given for large samples of subjects, pooled across companies.

Vroom, Victor, Work and Motivation, New York, John Wiley & Sons, 1964, vii-331 p.

The author covered all aspects of motivation, including job satisfaction, and investigated their relationship to job performance. The work was used repeatedly.

Wernimont, Paul, "A Systems View of Job Satisfaction", in Journal of Applied Psychology, Vol. 56, No. 2, 1972, p. 173-176.

The job satisfaction system presented by the author was modified and employed to explain and illustrate, visually, the present findings; a useful model.

Yuchtman, Ephraim and Stanley Seashore, "A System Resource Approach to Organizational Effectiveness", in American Sociological Review, Vol. 32, No. 6, 1967, p. 891-903.

A discussion of approaches to organizational effectiveness: the prescribed and derived goal approaches were contrasted with the system resource approach.

APPENDIX I

The Instrument
to Measure School Effectiveness
and Job Satisfaction

APPENDIX I

PART I

103

EFFECTIVENESS

For each of the six questions on effectiveness, select one of the following answers and record it on the separate answer sheet:

<u>7</u>	Outstanding
<u>6</u>	Excellent
<u>5</u>	Very good
<u>4</u>	Good
<u>3</u>	Fair
<u>2</u>	Rather poor
<u>1</u>	Poor

- (1) On the basis of your experience and information, how would you rate the quality of TEACHING that students GENERALLY receive from this school?
- (2) (On the basis of your experience and information) How good, would you say, is the teaching of BASIC SKILLS AND KNOWLEDGE given to the students in this school?
- (3) (On the basis of your experience and information) How good, would you say, is the teaching of THE ABILITY TO REASON AND APPLY KNOWLEDGE given to the students in this school?
- (4) (On the basis of your experience and information) How good, would you say, is the teaching of THE ABILITY TO ADAPT TO THE CHANGING WORLD given to the students in this school?
- (5) (On the basis of your experience and information) How good, would you say, is the teaching of THE DEVELOPMENT OF A STUDENT'S POTENTIAL AS AN INDIVIDUAL given to the students in this school?
- (6) (On the basis of your experience and information) How good, would you say, is the teaching of THE ABILITY TO RELATE TO AND COMMUNICATE WITH OTHERS given to the students of this school?

JOB SATISFACTION

Think of your present work. What is it like most of the time? For each statement, select one of the following answers and record it on the separate answer sheet:

2 for "YES" if it describes your work
1 for "NO" if it does not describe it
0 if you cannot decide

- | WORK | SUPERVISION |
|--|-------------------------------|
| (7) Fascinating | (43) Asks my advice |
| (8) Routine | (44) Hard to please |
| (9) Satisfying | (45) Impolite |
| (10) Boring | (46) Praises good work |
| (11) Good | (47) Tactful |
| (12) Creative | (48) Influential |
| (13) Respected | (49) Up-to-date |
| (14) Hot | (50) Doesn't supervise enough |
| (15) Pleasant | (51) Quick tempered |
| (16) Useful | (52) Tells me where I stand |
| (17) Tiresome | (53) Annoying |
| (18) Healthful | (54) Stubborn |
| (19) Challenging | (55) Knows job well |
| (20) On your feet | (56) Bad |
| (21) Frustrating | (57) Intelligent |
| (22) Simple | (58) Leaves me on my own |
| (23) Endless | (59) Lazy |
| (24) Gives a sense of accomplishment | (60) Around when needed |
| PAY | CO-WORKERS |
| (25) Income adequate for normal expenses | (61) Stimulating |
| (26) Satisfactory merit pay | (62) Boring |
| (27) Barely live on income | (63) Slow |
| (28) Bad | (64) Ambitious |
| (29) Income provides luxuries | (65) Stupid |
| (30) Insecure | (66) Responsible |
| (31) Less than I deserve | (67) Fast |
| (32) Highly paid | (68) Intelligent |
| (33) Underpaid | (69) Easy to make enemies |
| PROMOTIONS | (70) Talk too much |
| (34) Good opportunity for advancement | (71) Smart |
| (35) Opportunity somewhat limited | (72) Lazy |
| (36) Promotion on ability | (73) Unpleasant |
| (37) Dead-end job | (74) No privacy |
| (38) Good chance for promotion | (75) Active |
| (39) Unfair promotion policy | (76) Narrow interests |
| (40) Infrequent promotions | (77) Loyal |
| (41) Regular promotions | (78) Hard to meet |
| (42) Fairly good chance for promotions | |

APPENDIX 2

Raw Data
for Five Job Satisfaction Dimensions
and Six Measures of Organizational Effectiveness
for 75 Elementary Schools

APPENDIX 2

Key to Abbreviations

- (1) - School Number
- (2) - General Effectiveness
- (3) - Effectiveness: Basic Skills and Knowledge
- (4) - Effectiveness: Application of Knowledge
- (5) - Effectiveness: Adaptability to Change
- (6) - Effectiveness: Development of Individual
- (7) - Effectiveness: Ability to Relate and Communicate
- (8) - Effectiveness by Goals: Mean of (3) to (7)
- (9) - Overall Effectiveness: Mean of (2) to (7)
- (10) - Job Satisfaction with the Work Itself
- (11) - Job Satisfaction with Pay
- (12) - Job Satisfaction with Opportunities for Promotion
- (13) - Job Satisfaction with Supervision
- (14) - Job Satisfaction with Co-workers

Note: All data, except (1), represent school mean scores.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	5.80	6.00	5.20	5.40	5.60	5.80	5.60	5.63	40.00	16.60	5.20	48.60	46.40
2	5.67	5.33	5.00	4.67	4.67	4.67	4.87	5.00	37.00	18.33	12.00	34.00	40.67
3	5.33	5.33	5.33	6.33	6.33	5.67	5.80	5.72	37.33	12.33	5.67	43.33	51.00
4	5.33	5.17	5.33	5.33	6.00	5.58	5.48	5.46	40.50	14.83	9.50	46.83	45.67
5	5.00	5.40	4.60	4.60	4.80	4.80	4.84	4.87	36.80	11.80	3.60	30.40	45.00
7	6.33	5.67	4.33	4.67	5.00	5.00	4.93	5.17	39.33	10.67	3.67	51.33	52.00
8	5.40	5.40	5.20	4.60	5.00	4.60	4.90	5.03	37.80	10.00	9.80	48.60	48.40
9	5.75	5.75	4.75	4.75	4.75	5.00	5.00	5.13	40.75	11.00	12.75	52.25	45.25
10	5.00	4.80	4.20	4.80	4.40	4.60	4.56	4.63	41.00	12.60	13.00	46.00	47.20
11	5.00	4.60	4.40	4.40	4.20	4.80	4.44	4.53	41.20	17.20	5.00	46.20	50.00
13	4.60	4.40	4.20	4.20	4.80	4.80	4.44	4.47	37.20	14.80	8.00	39.40	38.60
14	5.75	5.50	4.00	4.50	5.25	5.25	4.90	5.04	38.25	15.75	9.75	41.50	49.25
16	5.00	5.00	4.33	4.00	4.50	4.67	4.50	4.58	38.33	14.50	9.50	45.33	37.67
17	5.22	5.22	4.56	4.56	4.78	5.11	4.84	4.91	36.67	10.33	7.67	48.67	45.67
18	4.67	4.33	4.00	4.67	5.00	5.33	4.67	4.67	28.00	20.33	2.67	33.67	31.67
19	5.67	5.67	4.67	4.00	4.67	5.00	4.80	4.94	44.67	13.00	4.00	46.00	50.33
20	6.33	6.67	5.33	5.33	6.67	6.67	6.13	6.17	39.67	14.33	13.00	49.00	52.33
21	5.67	5.33	4.00	3.67	4.33	4.67	4.40	4.61	37.00	17.33	9.00	45.33	42.33
22	4.67	4.00	3.67	3.67	5.00	4.33	4.13	4.22	30.00	9.33	5.33	43.00	40.33
24	5.00	5.00	4.33	4.00	4.00	4.67	4.40	4.50	40.67	15.00	12.00	37.00	46.67
26	4.50	4.50	4.00	4.00	4.00	4.00	4.10	4.17	50.00	19.50	24.50	51.00	40.50
27	4.33	4.33	3.67	3.67	3.33	3.33	3.67	3.78	32.33	17.33	5.00	42.33	37.33
28	5.33	4.67	4.00	4.00	4.00	4.33	4.20	4.39	37.67	13.33	3.67	49.00	43.67

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
29	6.20	5.60	5.60	5.60	5.20	5.80	5.60	5.56	5.67	42.60	15.00	6.80	51.80	48.20
31	5.40	4.40	4.40	4.40	5.20	4.60	3.80	4.48	4.63	41.40	11.40	6.60	45.40	49.20
41	4.00	4.00	4.00	3.67	3.67	3.67	3.67	3.73	3.78	32.67	12.33	7.67	46.00	42.67
42	5.50	5.50	5.50	4.50	4.50	5.00	5.00	4.90	5.00	40.50	22.50	14.50	51.00	50.00
43	4.67	4.33	4.33	3.67	3.33	3.67	4.33	3.87	4.00	37.67	12.33	2.33	26.00	47.00
44	5.50	5.75	5.75	4.50	4.25	5.25	5.50	5.05	5.13	41.75	15.75	6.00	50.25	48.00
45	5.33	5.00	5.00	5.00	5.00	5.00	5.33	5.07	5.11	45.00	19.67	13.00	53.33	53.33
47	5.00	4.67	4.67	4.00	4.00	4.00	4.33	4.20	4.33	37.33	16.00	3.00	52.33	45.00
48	5.60	4.60	4.60	4.00	4.20	5.40	5.40	4.72	4.87	40.00	13.20	5.00	45.20	39.40
49	4.67	4.50	4.50	4.67	4.33	4.33	4.33	4.43	4.47	38.50	16.17	7.50	49.33	48.00
50	5.00	4.67	4.67	3.67	3.67	3.33	5.33	4.13	4.28	29.67	8.00	3.67	32.00	43.67
51	4.75	4.75	4.75	4.25	4.75	4.50	5.50	4.75	4.75	33.75	14.25	9.50	45.75	41.25
52	5.00	5.00	5.00	4.75	5.00	4.25	5.25	4.85	4.88	39.00	17.00	7.75	50.00	43.75
53	5.00	6.00	6.00	5.00	4.50	5.50	5.00	5.20	5.17	42.00	18.00	17.00	49.50	43.00
54	5.00	5.00	5.00	4.00	4.25	4.25	5.00	4.50	4.58	34.00	12.00	3.75	43.25	44.75
55	5.00	3.67	3.67	4.67	3.00	5.33	6.00	4.93	4.94	42.33	9.33	9.67	46.00	44.00
56	5.33	5.00	5.00	4.33	6.00	6.33	6.33	5.60	5.56	37.33	13.33	8.33	48.67	51.33
57	5.00	5.00	5.00	4.25	3.75	3.50	4.25	4.15	4.29	33.25	10.75	2.50	35.25	42.75
58	5.25	4.75	4.75	4.75	4.75	4.50	5.00	4.75	4.83	34.75	16.25	11.25	40.00	36.25
59	5.50	5.50	5.50	5.25	4.75	5.25	5.00	5.15	5.21	39.25	14.25	9.75	51.00	53.00
60	5.14	4.86	4.86	4.71	4.71	5.14	4.86	4.86	4.90	37.00	15.14	8.00	45.71	47.14
61	5.00	5.00	5.00	4.50	4.50	4.50	4.50	4.60	4.67	42.00	14.00	4.00	47.50	50.50
62	4.50	5.00	5.00	4.00	4.33	4.83	3.83	4.40	4.42	31.83	15.50	4.83	41.83	28.50

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
63	4.67	4.67	4.67	4.33	4.00	4.33	5.00	4.47	4.50	40.00	12.33	7.00	52.33	44.00
64	6.00	6.00	7.00	6.00	5.00	6.00	5.00	5.80	5.83	32.00	18.00	6.00	34.00	36.00
65	5.75	6.00	6.00	5.25	5.25	5.75	6.00	5.65	5.67	37.25	19.50	13.50	51.50	49.25
66	4.67	5.00	5.00	4.33	4.67	4.33	5.00	4.67	4.67	46.33	22.00	15.33	41.33	44.00
70	5.00	5.00	5.00	4.00	4.00	5.00	4.75	4.55	4.67	37.50	9.25	8.00	38.00	38.00
71	5.60	5.60	5.00	2.80	3.80	5.20	4.80	4.32	4.53	37.40	12.00	7.80	47.80	41.20
72	4.75	4.75	4.50	5.00	4.50	4.50	4.50	4.60	4.63	38.25	12.75	10.00	32.25	42.00
73	5.29	5.00	5.00	4.57	4.14	4.86	4.57	4.63	4.74	41.43	16.00	10.29	38.00	45.14
74	5.75	6.00	6.00	5.50	3.75	5.75	6.00	5.40	5.46	35.75	11.50	14.00	46.00	38.00
75	5.00	5.33	5.33	4.00	3.67	4.67	5.33	4.60	4.67	36.33	10.33	11.67	38.67	31.33
76	5.25	5.75	5.75	4.75	4.75	5.25	4.75	5.05	5.08	33.00	12.50	6.50	46.75	50.00
77	5.60	5.60	5.60	4.60	4.00	4.60	5.40	4.84	4.97	39.00	16.20	8.60	46.00	46.00
78	4.00	4.40	4.40	4.00	4.00	4.00	3.40	3.96	3.97	32.60	11.40	9.00	39.80	31.40
79	6.25	6.25	6.25	5.50	4.25	5.00	5.25	5.25	5.42	36.25	11.00	9.25	41.50	51.00
80	4.75	4.75	4.75	4.50	3.50	4.50	5.00	4.45	4.50	37.25	14.50	13.00	27.75	43.00
81	5.33	5.00	5.00	5.33	5.67	5.67	6.33	5.60	5.56	45.00	10.33	4.00	47.00	50.33
82	5.40	5.40	5.40	5.00	4.60	4.80	5.60	5.08	5.13	40.80	8.00	8.00	42.20	44.20
83	4.75	4.75	4.25	3.75	4.50	4.50	4.25	4.25	4.33	31.75	11.50	6.75	33.50	27.50
84	5.00	5.00	5.00	4.40	4.60	4.40	5.00	4.68	4.73	36.60	9.00	9.00	46.00	47.00
85	5.00	5.00	4.80	3.60	4.40	4.20	4.20	4.24	4.37	39.20	9.60	9.20	42.60	35.60
86	5.25	4.50	4.50	5.00	4.50	5.00	5.50	4.90	4.96	36.75	8.25	5.75	40.25	40.25
87	5.25	4.50	4.50	4.25	4.50	4.25	5.00	4.50	4.63	36.00	11.75	3.75	48.75	38.00
88	5.25	5.00	5.00	4.50	3.50	5.75	5.50	4.85	4.92	39.00	14.00	6.75	44.00	42.50

1	2	3	4	5	6	7	8	9	10	11	12	13	14
89	5.67	5.67	4.00	4.00	5.00	5.00	4.73	4.89	43.67	10.00	12.67	42.67	49.33
90	5.50	5.25	4.25	4.50	5.75	5.75	5.10	5.17	40.50	15.00	8.00	48.25	39.00
91	4.25	4.50	4.25	3.75	4.25	4.50	4.25	4.25	37.25	6.25	4.50	14.25	45.00
92	5.50	5.50	4.25	4.00	4.50	4.25	4.50	4.67	36.50	13.00	7.50	50.75	43.75
93	4.40	4.20	4.20	4.00	4.80	4.60	4.36	4.37	35.40	12.80	8.60	45.40	36.00
94	5.25	5.50	4.00	4.00	4.25	5.00	4.55	4.67	38.00	15.00	7.25	47.50	45.75

APPENDIX 3

ABSTRACT OF

Dimensions of Job Satisfaction
as Determinants of
Organizational Effectiveness

APPENDIX 3

ABSTRACT OF

Dimensions of Job Satisfaction as Determinants of Organizational Effectiveness¹

Although the job satisfaction-effectiveness relationship has received considerable attention in the literature, evidence of the effect of job satisfaction dimensions on organizational effectiveness has been inconsistent and inconclusive. The purpose of this study was (1) to examine and operationalize the concept of effectiveness as it pertains to schools, and (2) to investigate the extent to which the dimensions of job satisfaction are determinants of school effectiveness.

The five dimensions of job satisfaction--the work itself, pay, promotion, supervision, and co-workers--were viewed as functional alternatives in terms of Etzioni's functional effectiveness model. Herzberg's two-factor theory of motivation and empirical generalizations were utilized as theoretical rationale in generating five hypotheses.

It was predicted that schools with teachers who have a high degree of job satisfaction, with each of the five dimensions, will have a higher degree of organizational effectiveness than schools with teachers who have a low degree of satisfaction with their work.

¹ H. Robert G. Knoop, doctoral thesis presented to the School of Graduate Studies of the University of Ottawa, Ontario, December 1975, vi-114 p.

The Job Descriptive Index, developed at Cornell University, and Georgopoulos and Mann's measure of organizational effectiveness, adjusted for use in schools, were given to teachers in seventy-five elementary schools. T-tests were selected to test for significant differences between high and low groups; a multiple regression analysis was employed to estimate the predictor strength of the job satisfaction dimensions as determinants of school effectiveness.

Four of five hypothesized null relationships were rejected. Schools with teachers who had a high degree of satisfaction with co-workers, with the work itself, and with supervision were found to have a higher degree of effectiveness than schools with low degrees of satisfaction with these dimensions. As expected, no such relationship was found for satisfaction with pay. However, the null-hypothesis relating to satisfaction with promotion and effectiveness was not rejected, indicating that this relationship could be attributed to chance.

Satisfaction with co-workers appeared to be the best single predictor of school effectiveness; of possible predictor combinations, satisfaction with co-workers and with supervision yielded the highest predictive index. The results only partially supported the Herzberg theory; however, empirical generalizations concerning the relationship between effectiveness and satisfaction with supervision and with co-workers were fully supported.

For the population investigated, the results suggested that elementary schools with teachers who have a high degree of satisfaction with co-workers, with the work itself, and with supervision have a high

degree of effectiveness in carrying out their teaching goals. Satisfaction with pay and with promotion did not seem to be determinants of school effectiveness.

Suggestions for future research included:

1. relating the job satisfaction dimensions to measures of teachers' self-concepts to indicate the causes of job satisfaction;
2. relating the job satisfaction dimensions to different measures of organizational effectiveness;
3. comparing and evaluating ranked, multiple school goals of students, teachers, administrators, and parents;
4. replicating the study with samples from open and closed schools using a variety of school sizes, male and female subjects, different age groups, and several ranges of teaching experiences.