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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

A STUDY OF TEACHER-PRINCIPAL PERCEPTIONS OF THE ORGANIZATIONAL CLIMATE IN SELECTED SCHOOLS IN RIYADH, SAUDI ARABIA

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

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MOHAMED ABDULLA MANUIE

Norman, Oklahoma

1976

A STUDY OF TEACHER-PRINCIPAL PERCEPTIONS OF THE ORGANIZATIONAL CLIMATE IN SELECTED SCHOOLS IN RIYADH, SAUDI ARABIA

APPROVED BY

DISSERTATION COMMITTEE

DEDICATION

This study is dedicated to the author's mother who passed away during the preparation of this doctoral study. God bless her and peace upon her.

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A STUDY OF TEACHER-PRINCIPAL PERCEPTIONS OF THE ORGANIZATIONAL CLIMATE IN SELECTED SCHOOLS IN RIYADH, SAUDI ARABIA

CHAPTER I

INTRODUCTION

This study was designed to investigate teacher-principal perception of the Organizational Climate of selected schools in Riyadh, Saudi Arabia. Its aim was to provide additional information concerning the interactions between teachers and principals in elementary and intermediate schools.

The intereaction between principals and teachers is a factor that is importantly related to the climate of schools. In Saudi Arabia the principal has sole responsibility for evaluation of the teachers. As the schools of the country move in the direction of more modern approaches to education, it becomes increasingly important to gather information that can be used in efforts to bring about more open climates in the schools.

Background of the Problem

Public education in Saudi Arabia is controlled by two central systems. The Ministry of Education supervises all boys' schools in the country. The General Presidency of Girls' Education supervises all girls' schools. Total authority is vested in these two central systems as exemplified by the statement that "The Ministry of Education reserves the power of appointment, promotion, distribution, transfer and discipline of teachers as well as all other school personnel."[1] Although there is a separate central administration for girls, the control is just as complete as that for boys' schools. The curriculum in girls' education is very similar to that of boys' education except that girls have additional courses in home economics.

The sudden increase in the demand for education in Saudi Arabia has resulted in rapid expansion of the number of schools by the Ministry of Education. This probably led to neglect of some of the basic problems facing the educational system of the country. Among the most pressing problems were the following:

1. There is a shortage of teachers of Saudi Arabian nationality in primary education, secondary education (except

---

[1]Hammad Al-Salloom, "A Study of the Relationship of School District Size and Administrative Practices in Schools in Saudi Arabia," (unpublished doctoral dissertation, University of Oklahoma, 1974), p. 15.

in the case of Arabic language and religious knowledge), technical education (except in the case of practical subjects), and higher education.[1] Most of the teachers from other Arab states are teaching in intermediate and secondary schools while Saudi teachers are teaching in the elementary schools. Communication may be less than adequate between the principals and the non-Saudi teachers because of the difference in their social backgrounds. (See Appendix A.)

2. Although there is a teacher shortage, many teachers wish to transfer to administrative posts in the Ministry of Education. This may be related to problems associated with the relationships between principals and teachers.

3. Many schools are housed in residential buildings and these may contribute to problems in principal-teacher relationships. (See Appendix B.)

4. In Saudi Arabia teacher participation in assessment is very limited. It is one of the primary delegated functions of the principal.

As defined by the Ministry, the role of the principal is described as follows:

> The school principal supervises directly all the activities in the school and is responsible for school direction to accomplish its purposes by creating the

---

[1] International Yearbook of Education (UNESCO: International Bureau of Education, Vol. XXX, 1968), pp. 418.

> favorable climate for students to obtain their studies according to the planned curriculum. The relationship between him and the teachers should be based on mutual friendship, respect, and cooperation.[1]

The above statement illustrates the requirement that the principal satisfy teachers while he fulfills his obligations to the central administration. The principals tend to be institutionally oriented and their relationship with teachers may be described as formal and universalistic in nature.

In Saudi Arabian education, institutions are regarded as more important than individuals. Education has been a highly centralized function of government. However, both the Ministry and the General Presidency of Girls' Education have recently established school districts. As a part of this trend toward decentralization of administration, it is important to investigate the interactions between teachers and principals.

The problems described above suggest the need to investigate the nature of school climates in Saudi Arabia. Such an investigation might provide clues relating to the nature of the principal-teacher communication problem. This could lead to identifying ways to reduce teacher transfers and shortages. If there are perceptual differences between teachers and principals, it may be possible to identify means

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[1]Ministry of Education, Elementary Education Between Yesterday and Today (Riyadh: Ministry of Education, 1969), p. 63. (Arabic Text.)

through which these differences could be reduced.

Statement of the Problem

The problem of this study was to investigate the perceptions of teachers and principals of the eight dimensions of the Organizational Climate of the schools in Riyadh, Saudi Arabia, in relation to the location of the school, type of school buildings, type of education (boys or girls), and tne type of nationality (Saudi or non-Saudi) of the teacher.

The research was also directed to answering the following questions:

(1) What is the status of schools in Riyadh, Saudi Arabia?

(2) How do the teachers and the principals perceive the school climates?

(3) Are there differences in perception of the organizational climate in boys' schools and girls' schools?

(4) What are the factors which contribute to the "openness" or "closedness" of schools in Riyadh?

(5) How can the teacher shortage be reduced and better communication established in the schools of Saudi Arabia?

Research Hypotheses

In order to investigate the problem, the fcllowing hypotheses were proposed:

Ho_1 There is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between teachers and principals.

Ho_2 There is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between teachers in four different types of schools.

Ho_3 There is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between school staff in schools located in high socioeconomic and low socioeconomic areas.

Ho_4 There is no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between Saudi and non-Saudi teachers.

Ho_5 There is no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between teachers in rented and non-rented school buildings.

Ho_6 There is no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between school principals in boys' and girls' schools.

The Organizational Climate Description Questionnaire, (OCDQ) developed by Halpin and Croft, is one of the better known instruments for investigating the social climate of schools. It has been used not only in the United States,

but also in developing countries. The contemporary literature provided evidence that the above mentioned Organizational Climate Description Questionnaire (OCDQ) has been used in India, the Philippines, and in the school systems of advanced nations with highly centralized control.

The statistical method of multivariate analysis used in investigating the problem was a Discriminant Analysis for two or more groups (SPSS). The analysis was performed so as to include not only single variables, but also combined variables (subtests) which may discriminate between two or more groups.

Theoretical Framework

The theoretical framework for this investigation was based on social system theory. Getzels and Guba developed a social system model, which consists basically of two dimensions:

1. The normative dimension is concerned with the goals of the organization, and

2. The personal dimension is concerned with the psychological aspects of the individual. Figure 1 is a diagram of the model.

Observed behavior in a social system is always a function of the interaction of these dimensions.[1]

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[1] Jacob W. Getzels and others, Educational Administration as a Social Process: Theory Research Practice (New York: Harper & Row, 1968), pp. 79-80.

interaction of these two dimensions forms a third dimension which is called the transactional dimension. One of its elements is climate.

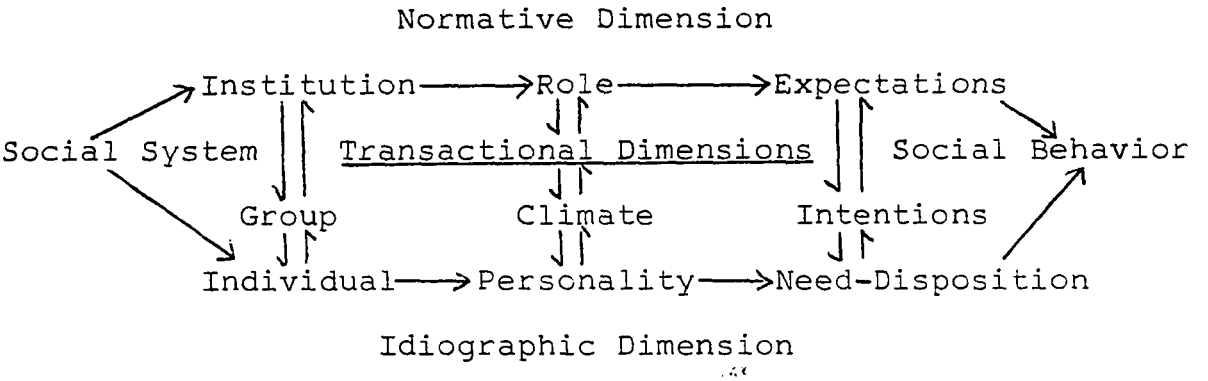

Fig. 1. Social System Model

The social systems theory, and specifically, the social system model represents the theoretical framework from which one can derive a conceptualization of the climate of the school and the behavior characteristics of principals.[1]

According to Lonsdale, Organizational Climate might be defined as the global assessment of the interaction between the task-achievement dimension and the needs-satisfaction dimension within the Organization, or, in other words, of the extent of the task-needs integration.[2]

---

[1]T. W. Wiggins, "Principal Behavior in a School Climate: A System Analysis," Educational Technology, Vol. II, September 1971, p. 57.

[2]R. C. Lonsdale, "Maintaining the Organization in Dynamic Equilibrium," in D. Griffiths (ed.), Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II (Chicago: University of Chicago Press, 1964), p. 166.

The perceptions of the members of the organizational climate in a social system, the school, depend largely on their need-dispositions. Parsons and Shills define need-dispositions as "individual tendencies to orient and act with respect to objects in certain consequences of these actions."[1] The perceptions of the members in a social organization will also depend on the satisfaction of the individuals. In this regard Halpin stated:

> According to how he behaves, the individual members of the organization will perceive that they are either "included" in the social interaction of the organization--that they do, indeed, possess and maintain satisfying friendships with others--or that they are "excluded" from the social life of the organization.[2]

The interaction of a teacher and a principal is within a role-set. "Role-set refers to the pattern of role relationships and concomitant complementary expectations which an individual has by virtue of occupying a single-position--the position of teacher necessarily entails role relationships with pupils, colleagues, administrators and so on."[3] These relationships may contribute to the Organizational Climate. According to Maggard, "Organizational

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[1]Talcott Parsons and E. A. Shills, Toward a General Theory of Action (Cambridge: Harvard University Press, 1951), p. 114.

[2]Andrew Halpin, Theory and Research in Administration (New York: Macmillan Company, 1966), p. 164.

[3]Jacob Getzels and others, Educational Administration as a Social Process (New York: Harper & Row, Publishers, 1968), p. 84.

Climate is a concept embracing the web of relationships existing in a social system such as the elementary school."[1]

Teachers and principals hold different expectations about school climate because of the degree of their interaction in a role-set. "There are differential involvements among the individuals in the role relationships, so that certain expectations are not maintained by everyone in the role-set with equal intensity."[2] The misunderstandings in a social system result from the conflict between role expectations and need-dispositions.

When a teacher and a principal or any two members of a role-set understand each other, "we mean that their perceptions and private organization of the mutual expectations overlap and are relatively congruent. When we say they don't understand each other, we mean that their perceptions do not overlap and are incongruent."[3]

Definition of Terms

Riyadh--Refers to the capital of Saudi Arabia where the central government is located.

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[1]Robert L. Maggard, "A Comparison of Principals and Teachers' Perceptions of Organizational Climate in Elementary Schools" (unpublished doctoral dissertation, The University of Arkansas, 1972), p. 14.

[2]Getzels, p. 84.

[3]Getzels, p. 87.

Ministry of Education--Refers to the central organization which has the authority and the responsibility of providing a nationwide education for boys.

General Administration of Girls' Education--Refers to the Central Organization which has the authority and the responsibility of providing education for all girls in the country. Sometimes it is referred to as General Presidency of Girls' Education.

Non-Saudi Teachers--Refers to the teachers from neighboring Arab states and does not include foreign teachers.

Organizational Climate--The "personality" of an organization. "Analogously, personality is to the individual what Organizational Climate is to the Organization."[1] A general term used to refer to the prevailing characteristics of an organization's environment. Specifically, that which is measured by the Organizational Climate Description Questionnaire (OCDQ).

Delimitations of the Study

This study was limited to teacher-principal perceptions of the Organizational Climate of selected schools in Riyadh, Saudi Arabia. Therefore, the study has the following limitations:

---

[1]Halpin and Croft, Theory and Research in Administration (New York: Macmillan Company, Inc., 1966), p.

1. It was limited to the elementary and intermediate school teachers and principals for both boys' and girls' schools.

2. It was limited to selected schools located in low and high socioeconomic areas according to a specific criteria outlined in Chapter III.

3. It was limited to the schools which are supervised by the Ministry of Education and the General Presidency of Girls' Education.[1]

4. The study was limited to the schools located in the city of Riyadh, the capital of Saudi Arabia.

Organization of the Study

The study was organized into five chapters. The first chapter is the introductory chapter which includes, in addition to a brief introduction, the background of the problem, a statement of the problem, research hypotheses, the theoretical framework, definition of terms, and the organization of the study. The second chapter is the review of related literature. The third chapter describes the methods and procedures which were used in the investigation. The fourth chapter is the presentation and analysis of data. The fifth chapter includes findings, conclusions, and recommendations.

---

[1]The Ministry of Education and General Presidency of Girls' Education are responsible for providing public education for the majority of students in the country. The Ministry supervises 68.6 percent of the students, and the Presidency supervises about 25 percent of the students.

CHAPTER II

REVIEW OF RESEARCH AND RELATED LITERATURE

There has been no previous research concerned with teacher-principal perception of the organizational climate of schools in Saudi Arabia. The three dimensions to this research that will be emphasized include: (1) research that deals with school system environments and school climates in Saudi Arabia; (2) the research concerning the organizational Climate of schools in the United States; and (3) the research pertinent to centralized systems of education.

Public Education in Saudi Arabia

The research that focuses on educational conditions in Saudi Arabia is based on the assumption that school climate is influenced by the environment of the whole school system. The schools are considered subsets of the local school district, which is a subset of the central educational organization. This is illustrated by the model shown in Figure 2.

There are several central educational organizations including the Ministry of Education, General Administration of Girls Education, the Ministry of Defense Education, and

the Religious Education Administration. Only the Ministry of Education and General Administration of Girls Education are pertinent to this study.

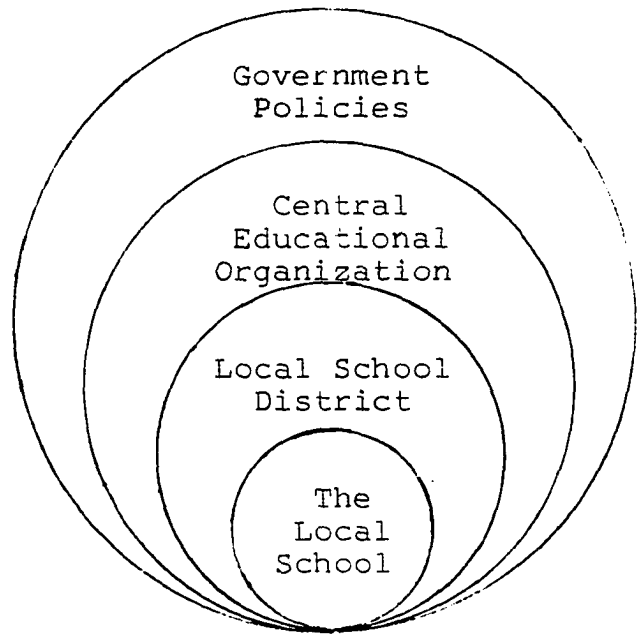

Fig. 2. The local schools as related to the school district, central educational organization, and government policies.

Development of Boys' Education

Education in Saudi Arabia was developed from a non-uniform system to more organized public education. Education was provided for many decades through primitive elementary schools called Kuttab schools.

Prior to the establishment of the Kingdom of Saudi Arabia, public education in the Arabian Peninsula was limited to elementary schools which hardly warranted being called

schools. The basic educational program was conducted by the local imams of the Moslem faith. These educational establishments were modest indeed and were located at or near the mosque.[1]

Prior to the establishment of Saudi Arabia in 1927, the Kuttab schools were the primary vehicle for education. The Kuttab schools began to disappear as educational institutions after a central organization for education was established.

In 1926 the Directorate General of Education was formed by King Abdal-Aziz with Egyptian assistance and advice. This organization was responsible for providing modern education on a nationwide basis.

The first government school in Saudi Arabia was established in 1925. This modest school stood alone for a decade as a single example of the future of education. In 1936, several more public schools were begun, but it was not until 1939 that these schools became what could now be considered as full-fledged elementary schools.[2]

"Until the end of the Second World War, there were only forty-six schools in Saudi Arabia; more than one-half

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[1]Alfred Thomas, Jr., Saudi Arabia, A Study of the Educational System of the Kingdom of Saudi Arabia and Guide to the Academic Placement of Students from the Kingdom of Saudi Arabia in United States Educational Institutions (Tempe, Arizona: Arizona State University, 1968), p. 42.

[2]Ibid., p. 43.

of them were in Western province."[1] The distribution of elementary and secondary schools in Saudi Arabia among the different provinces at the end of the Second World War was described by Jamal as follows:[2]

Province	Elementary		Secondary		Total
	Governmental	Private	Governmental	Private	
Western	12	10	4	3	29
Eastern	6				6
Southern	5				5
Central & Northern	6				6
Totals	29	10	4	3	46

The educational situation that existed prior to the formation of the Ministry of Education in 1953 contributed to current educational conditions in the country. Hammad described current problems as follows:

> These educational developments before the 1950's have influenced greatly the foundation of contemporary education in Saudi Arabia and understanding them sheds

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[1]Mohamed Abdulla Hammad, "The Educational System and Planning for Manpower Development in Saudi Arabia" (unpublished doctoral dissertation, Indiana University, 1973), p. 85.

[2]Ahmed M. Jamal, What is in al-Hijaz (in Arabia), Mecca, 1945, p. 23; and G. T. Trial and R. B. Winder, "Modern Education in Saudi Arabia," History of Education Journal, Vol. L, No. 3 (Spring 1950), pp. 121-133 cited in Mohamed Abdulla Hammad, "The Educational System and Planning for Manpower Development in Saudi Arabia" (unpublished doctoral dissertation, Indiana University, 1973), p. 86.

> light on the most difficult problems facing the system today. Such problems include, among others: 1) excessively centralized administrative organization; 2) the failure to provide the competent manpower needed for societal development; 3) the overwhelming dominance of some religious and liberal studies over vocational and technical studies in curricula; 4) the difficulty in adopting the traditional ways of learning to modern educational theories and techniques; 5) the continuous lack of qualified indigenous teachers; 6) emphasis on quantitative expansion which is unmatched by a qualitative improvement; 7) growth of several educational authorities without enough coordination and cooperation among them; and 8) lack of equal educational opportunities for large segments of the population, such as for girls and for nomadic people.[1]

The economic development of the country made it necessary to increase governmental educational facilities. The Directorate General of Education was no longer appropriate for supervision of education. Therefore, the Ministry of Education was formed in 1953 to be responsible for providing a nationwide modern education for boys.

Student enrollment increased significantly after the establishment of the Ministry of Education. The enrollment in 1950-1951 was 27,128 students while the enrollment in 1970-1971 was 396,835 students.[2] This tremendous increase in enrollment was accompanied through increasing the number of schools, facilities and staff.

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[1]Hammad, op. cit., pp. 89-90.

[2]Educational Statistics, Ministry of Education, Riyadh, Saudi Arabia.

Development of Girls' Education

Public education for girls has been established recently in Saudi Arabia. The girls' education had remained private for decades. "With regards to girls' education, it was provided through private schools or a special house tutorial system up to 1961 when the government established public schools for girls."[1] There were, however, 42 private girls' schools which together could accommodate about 6,500 students, and a few more girls were educated abroad or by private tutors.[2] Tradition has played a large role in the prevailing attitude toward female education. In this regard the UNESCO Mission reported that:

> By tradition, school education in Saudi Arabia has tended to be regarded for boys and, until recently, the only primary schooling for girls consisted of a few private schools for girls from wealthy families or from other homes where the parents had an enlightened outlook concerning the place of women in the future society. Nevertheless, the Government has recently, not through the Ministry of Education, but under the auspices of "The General Presidency for the Education of Girls," established publicly provided schools for girls.[3]

The establishment of a special administration for girls' education was a result of the traditional attitude that

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[1]Arab Information Center, Education in the Arab States, Information paper, No. 25 (VIII) (January 1960), p. 164.

[2]Norman C. Walpole, Area Handbook for Saudi Arabia (Washington: U.S. Government Printing Office, 1965), p. 98.

[3]Report of the Joint UNESCO/FAO/ILO Mission, 1961-1962 "Prospects of Educational Advance in Saudi Arabia," September 1962, p. 5.

girls should be separated from boys. The General Administration of Girls' Education is an independent administration with its own budget and policies. Its organizational structure is highly centralized, like that of the Ministry of Education.

The objectives of girls' education may be summarized as follows:[1]

1) to give girls a clear understanding of their responsibility toward their children, their own homes, and the society;
2) to satisfy the need felt in Saudi Arabia for women who are capable of maintaining a balance between the changing patterns of today and the traditions of yesterday;
3) to insure a flow of highly trained women for service in education and elsewhere; and
4) to provide all girls with an avenue to higher education.

Although girls' education is separated from boys' education, both boys and girls use the same texts. In addition to regular academic courses, girls study practical courses, such as home economics. "On May 16, 1962, the Ministry of Education announced its recognition that the curriculums and standards in girls schools were equivalent to other schools under its jurisdiction."[2]

There were, to be sure, some great strides taken in girls' education during the last decade when one considers that the ratio of girls to boys in school was less than 2.0

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[1]Abdel-Wassie, op. cit., p. 36.

[2]Alfred Thomas, Jr., op. cit., p. 46.

percent in 1961-62 and had increased from 29.7 to 70.3 percent in 1971-72.[1]

Girls' education in all of its educational levels faces the same problems and challenges which boys' education faced for a period of time. However, the two administrations are similar. Both systems are highly centralized. There are non-Saudi teachers in both systems. Neither system has enough qualified administrators and teachers and both suffer from lack of adequate facilities and proper buildings for their schools.

The Environment of the School System in Saudi Arabia

The school system in Saudi Arabia was influenced by other school systems from neighboring Arab states. "The administrative organization was adopted, with some modifications, from that of Egypt. The school's curricula and textbooks were also adopted. The teachers were either Saudis with less than a high school diploma or non-Saudis who were imported."[2] The adoption of such a system has greatly influenced the Ministry of Education and the schools in Saudi Arabia. An expert on the Egyptian school system states:

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[1]Mohamed A. Hammad, op. cit., p. 113.

[2]Hammad, op. cit., p. 86.

> In centralized planning, as manifested in the Egyptian school system, the higher administrative authorities capitalized on their role in planning for effecting central control and adherence to rigid standards of performance.[1]

The excessive centralization and the adherence to rigid standards of performance in the Egyptian system has been transformed to the Saudi Arabian system. However, the problems of centralization were less acute in the 1950s than in the 1970s when the Ministry of Education and other educational agencies became more complex. Decisions about how to develop the educational system so it could meet increasing needs for education became more difficult to make and implement.

At present, the Ministry of Education of Saudi Arabia exhibits a highly inconsistent hierarchical structure, characterized by a lack of precise specification of functions and scope of offices and an inconsistent set of reporting relationships among organizational offices.[2] Therefore, the central educational organization has exercized legal authority and wide responsibility over such minor issues as supplying

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[1]Zarif F. Bacilious, "An Analytical Study of Formal Organization: Formal Administrative Organization and Preparation of Administrators in the United Arab Republic School System," (unpublished doctoral dissertation, New York University, 1967), p. 646.

[2]Cited in Hamad Al-Salloom, "A Study of the Relationship of School Size and Administrative Practices in Schools in Saudi Arabia" (unpublished doctoral dissertation, University of Oklahoma, 1974), p. 46.

books and other materials to the schools. In this regard one writer stated:

> The educational administration is highly centralized with the Ministry of Education undertaking the necessary steps involved in the total operation such as planning, policy-making, budgeting, staffing, setting up the curriculum, prescribing and supplying books, as well as physical and teaching materials for the schools.[1]

The excessive centralization of decision-making in the central organization has greatly limited the delegation of authority to local school districts. Therefore, the school districts in Saudi Arabia simply transmit and carry out the decisions of the central organization. The Ford Foundation stated:

> Because of insufficient or total lack of delegation of responsibility and authority to lower levels of management, virtually all matters are eventually referred to the highest management levels for approval--even the most routine administrative matter such as a vacation request. The absence of a regular management (or performance) reporting system increases top executive reliance on personal involvement and approval of all actions.[2]

The Ministry of Education and the General Administration of Girls' Education have their own school district offices which depend heavily upon their central organizations for educational decisions. A recent study of school districts in Saudi Arabia pointed out that:

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[1]Saleh A. Bawazer, "A Proposed Social Studies Program for the Intermediate Level of the Elementary School of Saudi Arabia" (unpublished master's thesis, University of Southern California, 1967), pp. 1-2.

[2]Ford Foundation Public Administration Project, Riyadh, Saudi Arabia, February 28, 1966, p. 27.

> There is a definite lack of authority in schools as well as in school district superintendents' offices. They actually have no power to operate independently and they are virtually powerless in formulation of school policies.[1]

The impact of the school district upon the school environment is limited because most of the authority is vested in the central organization. Therefore, the environment of the schools is probably more influenced by the environment of the central organization than by the school district.

Characteristics of the Central Educational Organizations

The growing complexity of the Ministry of Education and the General Administration of Girls' Education have led to several problems in communication, recruitment, selection, favoritism, overstaffing, lack of administrator and teacher training, and poorly defined authority structures.

The Ministry is a confused maze of overlapping authorities, responsibilities, and reporting relationships.[2] The lack of precise organizational structure and definition contributes to, and indeed may be a cause of, a situation in which organizational decision-making is unduly influenced by

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[1] Hamad I. Al-Salloom, op. cit., p. 158.

[2] The Ford Foundation Public Administration Project, Riyadh, Saudi Arabia, February 28, 1966, p. 27.

the relative personality strengths and weaknesses of key executive personnel.[1]

Communication

Poor communication at the central level may contribute to the nature of communication existing at the lower levels. Zughaibi indicated that "there is a lack of any systematic communications among employees in relation to work needs and requirements."[2]

Conditions are not conducive to a good communication system in Saudi Arabian bureaucracy. Organizational deficiencies as well as social and cultural factors contribute to this situation. Intra-organizational communications (vertical as well as horizontal) are dysfunctional in nature.[3]

Communication between the schools and the school district is less than adequate. Many teachers and principals complain that school districts do not cooperate on matters pertaining to the schools and their facilities. A teacher may spend much of his time trying to get answers from the Ministry on minor issues that could be better dealt with at the local school level. The bureaucratic structures of the

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[1] Ibid., p. 28.

[2] Morshed M. Zughaibi, "Public Administration in Saudi Arabia Problems and Prospects" (unpublished master's thesis, North Texas University, 1973), p. 101.

[3] Ibid., p. 99.

Ministry of Education and the General Administration of Girls' Education do not take account of the importance of communication and interaction between teachers, principals, and central office. Zughaibi indicated that:

> The dysfunctional communication system in Saudi Arabia is largely the product of neglect of the importance of communication by top management as exhibited by the lack of any formal and explicit provisions for an adequate communication system in the public bureaucracy.[1]

Dysfunctional communication in the educational system may also be attributed to the following:

1) Inadequate administrator training.
2) Authority vested in the hands of a few administrators.
3) Inadequate reporting system.
4) Excessive centralization.
5) Favoritism and kinship (nepotism).

When interaction and communication are limited, conflict often results. In this regard Morphet stated:

> The more interaction or overlap there is between related groups, the more similar they become in their norms and values; the less communication or interaction between them, the more tendency there is for conflict to arise between them. And vice versa; the more conflict, the less interaction.[2]

Such conflict was present in the educational system of Saudi Arabia. Many principals and teachers indicated to this investigator they were dissatisfied with the way the

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[1] Ibid., p. 101.

[2] Edgar L. Morphet, "The Future in the Present: Planning for Improvements in Education." Designing Education for the Future, No. 4: Cooperative Planning for Education in 1980. Edited by Edgar L. Morphet and David L. Jesser, (New York: Citation Press, 1968), p. 162.

educational district deals with their problems. On the other hand, school district officials blame the schools for lack of cooperation. One official stated that:

> Most of the problems between the school district and the schools are lack of seriousness, and loyalty of most school principals for their job. For example, many schools hesitate about providing information which is required by the district. There are only a few school principals who attend the school principals' meetings which are established for improving the schools in the district.[1]

These conflicting perceptions between the schools and the school district result in misunderstandings and lack of interactions and communication.

Most of the schools are visited only twice a year by the school district supervisory officer(s). Normal transactions between schools and district superintendent's office are inordinately delayed. The school district superintendent and his staff play almost no role in general policy formulation, and they do not have the power to adopt general policies locally. They are compelled to conform to specific policies formulated centrally.[2]

The interaction and communication within schools may be better than the interaction within school districts or the central office. However, the relationship between the

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[1]Written interview with the Assistant Superintendent of Riyadh School District, Riyadh, Saudi Arabia, 1975, p. 2. This is a written interview to answer some questions which are raised by the investigator.

[2]Hamad I. Al-Salloom, op. cit., pp. 102, 115, 158-159.

teachers and the principal tend to be formal in nature.

Staffing

The central organizations of education, like many other governmental organizations, are overstaffed for the service performed. The overstaffing occurs because the government is the major employer in the country. Therefore, most educators and noneducators turn to the government for employment. In this regard, the Ford Foundation Team stated that:

> Since government is the prime source of employment there is a tendency to use public employment as a form of economic assistance to the people. Its offices and its payroll are overstaffed, but the employees are inferior in skills. However, the Kingdom of Saudi Arabia has made comparatively great headway in expanding general education by opening schools, institutes, colleges and universities and sending numbers of young men abroad to specialize in different fields. This, hopefully, will lessen its shortage of well-trained manpower needed for its development.[1]

Furthermore, within the bureaucratic context, top officials competitively try to augment their power position by increasing the number of their subordinates regardless of the actual needs of their tasks.[2] Many teachers and school principals seek and get administrative jobs in the central

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[1]Ford Foundation, Manpower Development and Utilization in Saudi Arabia (Riyadh: Ministry of Finance, June 1, 1968), p. 12.

[2]Ibrahim Al-Awaji, "Bureaucracy and Society in Saudi Arabia" (unpublished doctoral dissertation, University of Virginia, 1971), p. 221.

educational organizations and other governmental organizations. They see these positions as vehicles for social mobility and economic well-being. The figures indicated that:

> The Ministry of Education is the largest government department, with a staff of about 50,000 administrators and teachers throughout the country, of whom about 2,800 are employed centrally at the Ministry Headquarters in Riyadh.[1]

Although there is overstaffing in the central educational system, Saudi Arabia is not able to provide national (Saudi) teachers for its schools. In this regard, Alfred Thomas stated that:

> At the present time, the Kingdom of Saudi Arabia is dependent upon the nationals of many countries as educators, technicians, governmental advisors, and those trained in other skills to provide the leadership so necessary for its advancement as a nation.[2]

The schools in large cities are more fortunate than those in the villages and remote areas. Usually, the schools in the cities are better equipped and they are fully staffed with teachers.[3] The city teachers are usually better qualified than those in the villages. In remote areas and villages the physical plants of the schools do not provide

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[1]Richard A. Chapman, "Administrative Reform in Saudi Arabia," Journal of Administration Overseas, Vol. 13, Issue No. 2, April 1974, p. 340.

[2]Alfred Thomas, Jr., Saudi Arabia. A study of the Educational System of the Kingdom of Saudi Arabia and Guide to Academic Placement of Students from the Kingdom of Saudi Arabia in the United States Educational Institutions (Tempe, Arizona, 1968), p. 5.

[3]The teachers may be Saudis and non-Saudis teachers.

a good educational environment. The teachers and principals are less well-qualified. The teacher-pupil ratios in the schools in remote areas may vary substantially from one school to another. One school may be overstaffed because of decreases in enrollment. Many teachers have negative attitudes about teaching in the villages and the remote areas. They consider conditions to be unsatisfactory for teachers. In this regard, the Ford Foundation indicated that:

> It appears that teachers serving in remote areas are generally those not considered to be of top quality. Often they are among the lowest paid. Punishment may be meted out to an offending (or offensing) teacher by transfer to a remote location. Conversely, the best and higher paid teachers tend to be assigned to the larger urban areas as the more desirable location.[1]

Staffing of local schools in Saudi Arabia will continue to be a problem for sometime to come. There is a lack of educational planning at all educational levels. In this regard, Herbert Woolly of the Ford Foundation team stated that:

> I have come to believe that effective development planning and execution are being hindered by an excessive concentration on the matter of dividing allotment of funds for development and by too little specialization of function among governmental agencies.[2]

The five-year plan has been criticized because it does not carry the force of law and because its fiscal

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[1]Ford Foundation Public Administration Project (Riyadh: Saudi Arabia, February 28, 1966), p. 48.

[2]Herbert B. Woolly, A Special Report submitted to the Minister of Finance, March 1, 1964, p. 1.

projections are not precise.[1] Therefore, the five-year plan for education has failed to provide adequate projection because the Department of Planning functions independently and without cooperation with other departments in education.

Administrator Behavior in the Educational System

The approach to their work of administrators in the Ministry of Education, General Administration of Girls' Education, and the local school district offices probably affects the school environment in general and the school climate in particular. There is a general lack of trust, responsibility, and accountability. As Warner put it:

> Within the entire framework of the government organizations, there is a universal lack of clearly defined lines of responsibility and accountability. Administrative lines of authority seem to be well-known, but there is real effort made at all levels to avoid responsibility.[2]

Tardiness is almost universal, newspapers are read during working hours, there is absence from desks and offices, horseplay in the halls, and gathering around for general discussion instead of working. The causes are numerous, such as lack of responsibility and accountability being assigned

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[1] "Economic Development in Saudi Arabia," Middle East Economic Digest, October 10, 1969, pp. 1253-54. This Plan started in 1970-71 and it ends in 1975-76.

[2] S. E. Warner, Proposed Accounting Development Program for the Government of Saudi Arabia (Riyadh: Ford Foundation, 1964), p. 6; the educational system is considered as one of governmental organizations.

to supervisors, lack of training for supervisors, lack of interest in the work, inability to perform duties and, in some cases, insufficient work to keep employees busy.[1]

These observations are as true today as they were ten years ago. The educational system has developed tremendously in terms of quantity, but in quality, the development is limited. "The rapid growth has contributed to the quantity demand. Focusing on Saudi Arabia, the really obvious change is the rapid growth in educational quantity rather than quality."[2]

There is work delay at almost all administrative levels because of lack of interest in the job, mistrust between superordinates and subordinates, and lack of emphasis on accountability. The Ford Foundation team observed that:

> All transactions must receive the approval and signature of at least three to four administrative officers, in addition to several other signatures of routine auditors. It appears that the concept of accountability is not known or else ignored.[3]

On the local school district level, administrators spend most of their time on paper work and other activities

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[1]Louis G. Koningham, Civil Service in Saudi Arabia (Riyadh: Ford Foundation, 1963), p. 1.

[2]Mohamed Ismail Zafer, "An Investigation of Factors which are Associated with Enrollment and Non-enrollment in Teacher Education Programs of Public Secondary Education in Saudi Arabia" (unpublished doctoral dissertation, Michigan State University, 1971), p. 6.

[3]S. E. Warner, Proposed Accounting Development Program for the Government of Saudi Arabia (Riyadh: Ford Foundation, 1964), p. 6.

which have no leadership impact upon the local schools. "School district superintendents devote so much of their work time to clerical details that they have little or no opportunity to perform the major duties of administration and supervision."[1]

In addition, working rooms in most cases are crowded, dirty, poorly illuminated, and are not air-conditioned. Filing systems are very primitive and unorganized which leads to employee frustration and annoyance.[2]

The principals of the schools at all educational levels perform their duties similarly. Principals do not play a leadership role because they do not have the authority to initiate changes within their organizations. Therefore, most of the school principals' time is spent on clerical details and minor issues.

The Duties and Responsibilities of the School Principals

The elementary school principal in Saudi Arabia has several duties and responsibilities which may be illustrated as follows:[3]

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[1]Hamad I. Al-Salloom, op. cit., p. 159.

[2]Morshed M. Zughaibi, "Public Administration in Saudi Arabia: Problems and Prospects" (unpublished master's thesis, North Texas University, 1973), p. 90.

[3]There are 28 duties and responsibilities for the elementary school principals. For more information about the elementary school principal and school staff see the Interior System of Elementary School, Ministry of Education (Arabic Text), 1964.

1) The principal is the first one to be responsible for the school system and its activities. He provides all administrative work if he is alone, and he may have assistants in which case administrative work should be equally shared.

2) The school principal should be responsible for the accomplishment of all school subjects at the end of the school year. He should follow the direction of the Ministry in this regard, and he should
   a. distribute the hours and classrooms to teachers according to their abilities. It is desirable that the principal take the opinion of the teachers in this matter.
   b. prepare the school schedules on the first day of school. . . .

3) The school principal should communicate to teachers all the information which he receives from the Ministry of the educational district.

4) The school principal should hold staff meetings from time to time for the discussion of problems in the schools and about matters which may raise the level of education in the school.

5) The school principal should keep records of staff meetings and provide the educational district with copies of these records.

6) The school principal should visit teachers in the classrooms. He should see their notebook preparation every day. He should keep records about each teacher which may be needed when writing secret reports to the educational district.

7) The school principal should not advise or criticize teachers in front of the pupils.

8) The school principal should keep the record of presence and absence of school staff in his office and he should tell the staff to sign every day in their record.

9) The school principal should come to school every day fifteen minutes before the start of school.

10) The school principal should be concerned about the activities of the pupils, and should try to provide the necessary services for the school activities.

The duties and responsibilities of the intermediate and secondary school principals are somewhat similar to those of elementary school principals.[1]

Recruitment and Selection of Administrators and Teachers

Recruitment of educational administrators and teachers is the same as the recruitment of other public personnel. The most important criteria for selection of public officials are:[2]

1. An applicant must be a citizen of Saudi Arabia, with exceptions for hiring noncitizens when necessary.
2. He must be at least 18 years old.
3. He must pass a health examination.
4. He must be socially and morally respected.
5. He must not have committed a crime for at least the last five years prior to his appointment.
6. He must possess the educational requirements.
7. He must pass a competitive examination.

The selection procedure usually begins with an advertisement by the respective ministry or agency in the Official Gazette and other newspapers and magazines broadly indicating the requirements for filling the position. On the day designated for examination, the ministry or agency forms a committee of two or three employees joined by a representative of the General Personnel Bureau (GPB) to insure objectivity

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[1]For more information see the Interior System of Organizing Intermediate and Secondary Schools (Riyadh: Ministry of Education, 1970), pp. 13-14.

[2]Civil Service Code, Article 14, 1958.

and honesty in selection.[1]

The procedure and the selection criteria are broadly stated without specific position descriptions. This method of selection may increase the irrelevancy between jobs and qualifications. A person may be selected for a job whose duties and responsibilities are not clearly defined. Zughaibi stated that:

> Public employees exercise their duties in a haphazard and vague manner without detailed and clear descriptions of their jobs. Accordingly, employees are not fully aware of their job's functions and have blurred conception of the rules and duties.[2]

The selection of a certain person to fill an administrative job may be influenced by personal relationships. "Finally, since personal relationship is the center of all the individual's obligations and responsibilities the Arab is not used to being impartial and objective in assigning jobs, or distributing benefits."[3] The selection of administrators lacks objectivity in this regard. Al-Awaji states that:

> Social relations are deeply reflected in the bureaucratic behavior. Objective considerations are of a secondary importance in determining the selection of employees and in assuming the necessary cooperation within the organization. It is common to see many friends and relatives of top officials working in their ministries, departments, or divisions.[4]

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[1] Al-Awaji, op. cit., p. 138.

[2] Zughaibi, op. cit., p. 95.

[3] Al-Awaji, op. cit., p. 79.

[4] Ibid., p. 228.

This lack of objectivity in the central system may influence the objectivity of principals and teachers.

Teacher Training

Most of the educational problems that face Saudi Arabia are the inadequate training of administrators and teachers. Lack of qualified persons for key positions causes the country to suffer from an educational crisis. Zaid stated in this regard that:

> Arabia now is in the midst of an overall educational crisis. The country lacks clarity of vision, professionalism in administration, qualified planners, highly trained teachers, and a pragmatic political, social and educational philosophy.[1]

The inadequacy of teacher training is a result of an increase in demand for education. The country is planning for self-sufficiency in elementary school teachers. Several teacher training institutes have been established to accomplish this goal. However, these training institutes provide limited training experiences.

At present the teacher training for elementary teachers is equivalent to a secondary school certificate. Educational officials recognize that teacher training for elementary schools is not rigorous. Abdel Wassie stated in this regard that:

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[1]Abdullah M. Zaid, "A Pragmatic Critique of Contemporary Arabian Civilization" (unpublished doctoral dissertation, The University of Oklahoma, 1972), p. 136.

> We still are not satisfied with the standard of our primary school teachers and look forward in the near future to being able to require candidates for admission to teacher-training institutes to have completed a three-year course in the secondary school.[1]

Recently, great concern has been expressed about raising the standards of elementary school teachers. The Ministry of Education and several universities in Saudi Arabia have cooperated in developing a program in which the elementary school teachers will continue their education while they are teaching. They may eventually receive junior college or college degrees, depending on their performances.

The intermediate and secondary school teachers are required to have a college degree. Still, their preparation is not geared to helping students. All teachers in the public schools are required to cover the text by the end of the year, whether or not the information provided is relevant to the student. In this regard Matthews and Akraw stated that:

> This does not make for local interest in the schools or local concern about them, or local cooperation in their proper running. The school is not conceived as a part of the community but as part of government which is something different from the people.[2]

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[1]Abdel Wahab Abd-el Wassie, Education in Saudi Arabia (England: Macmillan & Co., Ltd., 1970), p. 28.

[2]Roderic D. Matthews and Matta Akraw, Education in Arab Countries of the Near East (Washington, D.C.: American Council of Education, 1949), p. 543. Although this is a quarter century ago, all evidence and research indicate its applicability today.

As a result, the teachers have to be concerned with the organization rather than the individual student. The expectations of the school, which are handed down from the central organization, are very well known by the teachers. The teachers are expected to respond without question to the expectations of school principals, local school district officials, and the central educational organization.

It may be that the tendency toward decentralization along with upgrading the teachers and administrators will result in a better working environment. Ultimately, perhaps, teachers and principals will be able to think freely rather than responding to a stereotype from central officials.

Administrator's Training

Many administrators are in jobs which are unrelated to their training. Most of the positions in the educational system are filled by people with limited backgrounds in education.

Many administrators have not taken any course in administration. Most of them are graduates of religious institutions with a limited view of education. In this regard Al-Salloom stated:

> In general, the educational system in the country is run by people who lack special training in education. Their knowledge and training in up-to-date educational theories and practices must be considered limited. Only a few school superintendents and members of their

staffs have bachelor's degrees in education along with some training and reasonable experience in their fields.[1]

The Ministry of Education sees the need for better qualified administrators and teachers. Several training programs have been established for the purpose of developing better qualified government employee and school administrators. An example is the Institute of Public Administration.

The Institute's main function is to provide government employees with the skills needed in all phases of management. From the time of its establishment in 1961 and 1969, it offered twenty-four training programs to 3,110 government employees.[2] However, the impact of the Institute upon schools is limited. The period for training is short (three months) and, therefore, has limited impact.

Education officials are aware of the problem of inadequate pre-service education for administrators. Therefore, special training programs for administrators were established both in Saudi Arabia and abroad. During 1972 and 1973, two special training programs were established at the Colleges of Education of Riyadh and Mecca. These programs retrain more than 100 elementary school principals, and more than 50 intermediate school principals. Two other programs

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[1]Al-Salloom, op. cit., p. 159.

[2]Youssef A. Al-Hamdan, "Development of Local Government in Saudi Arabia" (unpublished master's thesis, University of Pittsburgh, 1971), p. 37.

were established with the cooperation of educational institutions in the United States.

The main objectives of these special training programs are to change staff attitude and prepare them for better performance of their duties. In this regard Chapman stated that:

> In order to stimulate the maximum possible rate of administrative reform the Ministry has begun a massive five-year training program to change staff attitudes and make them more proficient in their duties. Each year two groups of 50 key staff, accompanied by their wives and families, are sent to the U.S.A. to universities in Oklahoma and Indiana--where they take a one-year training course in educational administration; a large number but not all will be taking M.Ed. degrees. This enormous programme to retrain 500 staff is intended radically to change staff work attitudes as well as to teach them more about the academic approaches to their work.[1]

For many years, the Ministry of Education and the universities sent hundreds of students abroad every year to get training in subjects pertinent to the development of Saudi Arabia. Many students have returned to the country and participated in the wave of change in public institutions. In this regard Rasheed stated that:

> In the past, almost all of the American educated students filled key positions in governmental and private agencies. Among the American universities alumni are ministers, deputy ministers, university presidents and college deans, and directors of very important organizations. In fact, prominent among their society are the educated Saudis, and thus they

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[1]Richard A. Chapman, "Administrative Reform in Saudi Arabia," Journal of Administration Overseas, Vol. 13, Issue No. 2, April 1974, p. 340.

> will remain as long as the mass of people and the high authority in the country have an increased favorable expectation from the highly educated people. They are expected to have a major role in providing positive guidance to the whole process of change going on in different aspects of life. Indeed, Saudi intellectuals are regarded as people of ideas and are expected not only to think profoundly about the national problems, but to take the necessary steps to translate their thoughts into practice . . . to bring their skills to bear on the problems facing the nation.
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> Thus, every public institution in Saudi Arabia is to be very much influenced by the Saudi students upon their return.[1]

The traditional school administrators who are retrained in the country and abroad have confronted new experiences and practices which may help them to solve the problems in their schools. This may result in more favorable school climates. Many of the graduates of these special training programs have criticized the old practices and they favor drastic changes.

Organizational Climate of Schools in Riyadh, Saudi Arabia

There has been no previous research on the organizational climate of schools in Saudi Arabia. Since the interactions and relationships of teachers and principals is a factor that is importantly related to the climate of schools, it is important to know about these relationships

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[1]Mohammed Ahmed Rasheed, "Saudi Students in the United States: A Study of their Perceptions of University Goals and Functions" (unpublished doctoral dissertation, The University of Oklahoma, 1972), p. 3.

in the schools of Riyadh. The relationship between the principal and the teacher may be described as:

> The relationship between the principal and his teachers may be described as formal and this is due to the large size of the schools in the city and the large number of the teachers. Also, most of the teachers do not stay in the school long enough to establish informal relationships with the school principal.[1]

Formal relationships exist in the educational system, not only in the central organization, but also on the school level. The nature of centralization and lack of cooperation between central and local officials has contributed to the establishment of the formal relationships.

Teacher-principal relationships may be better in intermediate and secondary schools than the elementary schools. The intermediate and secondary school teachers and principals are better qualified than those at the elementary level. Teachers at the elementary level have more problems in the schools which disturb their relationships with the principal and other teachers in the school.[2]

Local school district officials predicted that the climates of elementary and intermediate schools would be similar, and might be more favorable in the intermediate schools. Also, the local school district officials predicted that

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[1]Written interview with the Assistant Superintendent of Riyadh School District for Boys Education (Riyadh, 1975), p. 1. This written interview is made because there is not any literature concerning the relationship between the principal and the teachers in the schools of Saudi Arabia.

[2]Ibid., p. 8.

there would be no difference in perceptions between the principal and the teachers. In this regard one official stated that:

> There may be no difference in perception between the teachers and the principals for what goes on in the school. The principal and the teacher work in one climate, the school. Each one carries part of the responsibilities to accomplish the duties.[1]

There is conflict in the perceptions between the school district officials and non-Saudi teachers. The school district considered that there were no problems between the Saudi and non-Saudi teachers. "The Saudi and non-Saudi teachers respect each other, but there may be some problems which are not worth mentioning."[2] In this regard one non-Saudi teacher stated that:

> Generally, the treatment of non-Saudi teachers differs from the Saudi teacher in the schools. The non-Saudi teachers encounter problems and lack of respect when they plan to go to their countries in summer vacations. They have to stay for at least one week between the walls of the local school district, and the walls of the Saudi Arabian Airlines before they are permitted to leave for their vacation. Such delays and lack of respect may reduce the productivity of the non-Saudi teacher.[3]

As in any large city, the schools in Riyadh are located in different socioeconomic areas. For the purpose of this investigation, the schools were divided into high

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[1] Ibid., p. 10.

[2] Ibid., p. 3.

[3] A Non-Saudi Opinion, a letter submitted to this investigator along with the questionnaire, 1975.

and low socioeconomic areas according to criteria stated in Chapter III. Local school district officials expected the schools in high socioeconomic areas to have more favorable climates. In this regard, it was indicated that:

> The schools in high and middle socioeconomic areas have better school climate than the schools in low socio-economic areas. This may be due to large populations and crowded students in low socioeconomic areas. The schools in high socioeconomic areas have small student enrollments and better facilities and proper school buildings which are not available in the low socio-economic schools.[1]

Organizational Climate Research in the United States

Halpin and Croft's investigation of organizational climate and development of the Organizational Climate Description Questionnaire (OCDQ) generated a number of subsequent studies. This section deals with the Halpin and Croft investigation and many of the studies that used the OCDQ, especially in countries with centralized systems of education.

Development of the Concept of Organizational Climate

Organizational climate is a concept which is new to administrative research. Reference to the influence of environmental variables is seldom found in the literature prior to the 1950s.

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[1]Written interview, op. cit., p. 6.

[2]Berge A. Borrevik, Jr., "The Construction of Organizational Climate Description Questionnaire for Academic Department in Colleges and Universities" (unpublished doctoral dissertation, University of Oregon, 1972), p. 8.

The concept of organizational climate was derived primarily from theories of organizations. These theories can be classified into four categories which ". . . are labeled classical, structural, decision system, and social system."[1]

The classical management theories of Taylor, Fayol, and Gulick and Urwick were concerned with subdivision of work and the expectations of the organization. They neglected the working conditions of the individuals, or climates. In this regard Litwin stated that:

> concepts such as climate are irrelevant in the classical management theories since these theories do not seek to explain the variation of behavior that climate produces. It is unlikely that climate concepts could be integrated with the classical type of organization theory, primarily because of the attention to analysis of behavior.[2]

Another category was theories concerned with structure. They dealt with the interrelationship of structural, technical, and external climate factors. Investigators attempted to account for characteristics by explaining the interrelationships of the various sub-units which composed the organization or analytical variables. Organizational structure, technical attributes of the work, of the organization, and the design of individual and group tasks were

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[1]Rento Tagiuri and George H. Litwin, (editors), Organizational Climate, Explorations of a Concept (Boston: Harvard University, 1968), p. 48.

[2]Ibid., p. 48.

viewed by the structural theorists as important determinants of satisfaction, morale, and productivity of people, and of organizational effectiveness and development. The emphasis in the structural approach on objective features of organizational structure, administration practices, and the effect of these on job characteristics differs substantially from the emphasis on the environmental concept. In the latter instance, the emphasis is upon the total subjective effect of the environment on people.[1]

A third category was decision system theories. Rationality of decisions as the primary goal of the organization was the emphasis of these theories. The focus was upon effective administration, organizational influence on individual decisions, and organizational decision making. They were concerned specifically with the development of a more adequate theory of individual and organizational choice and, therefore, allow for the integration of climate concepts.[2]

Social system theories were the fourth category. "The social system theories of organization emphasize the importance of the immediate informal work group in determining individual motivation and organizational performance."[3]

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[1]Berge A. Borrevik, op. cit., p. 11. Borrevik reworded the information from Rento Tagiuri and George H. Litwin, op. cit., pp. 48-50.

[2]Rento Tagiuri and George H. Litwin, op. cit., pp. 50-52.

[3]Ibid., pp. 52-53.

The contention was that the informal work groups and the interactions between groups and the organization are crucial to organizational effectiveness. These theories contribute a great deal to the development of the concept of organizational climate.

Tagiuri defined the concept of organizational climate as follows:

> Organizational climate is a relatively enduring quality of the internal environment of an organization that (a) is experienced by its members, (b) influences their behavior, and (c) can be described in terms of the values of a particular set of characteristics (or attributes) of the organization.[1]

Evan described the concept of organizational climate as ". . . a multi-dimensional perception of the essential attributes or character of an organizational system."[2]

Cornell defined the concept as being "a delicate blending of interpretations by persons in the organization of their jobs or roles, in relationship to others and their interpretations of the roles of others in the organization."[3]

Argyris conceptualized organizational climate from his study of a bank. He considered three interrelated variables: the formal structure of the organization evidenced by the rules, regulations, procedures and policies,

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[1] Ibid., p. 27.

[2] Ibid., p. 110.

[3] Francis G. Cornell, "Socially Perceptive Administration," Phi Delta Kappan, Vol. XXXVI, March 1955, p. 222.

personality traits of the organizational members reflecting their individual needs, values and abilities, and the variables associated with the individual's abilities to accommodate his end with those of the organization. The interaction of these three variables provide a measure of the organizational climate.[1]

Organizational climate was defined by Forehand and Gilmer as follows: "By organizational climate we mean those characteristics that distinguish the organization from other organizations, and that influence the behavior of people in the organization."[2]

Feldvebel defined the organizational climate ". . . as patterns of social interaction that characterize an organization. The main units of interaction in this concept of climates are individuals, the group as a group, and the leader."[3]

Lonsdale defined the organizational climate as the global assessment of the interaction between the task-achievement dimension and the needs-satisfaction dimension

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[1]Chris Argyris, "Some Problems in Conceptualizing Organizational Climate: A Case Study of a Bank," Administrative Science Quarterly, Vol. 2 (March 1955), pp. 501-520.

[2]Garlie A. Forehand and B. Van Halter Gilmer, "Environmental Variation in Studies of Organizational Behavior," Psychology Bulletin, December 1964, p. 362.

[3]Alexander M. Feldvebel, "Organizational Climate, Social Class, and Educational Output," Administrator's Notebook, Vol. XII, No. 8, April 1964.

within the organization or in other words, of the extent of the task-needs integration."[1] The task-achievement and needs-satisfaction refer to the normative and the idiographic dimensions of Getzel-Guba model respectively. Therefore, social system theory, and especially the social system model, provide the greatest contribution for the concept of organizational climate.

Wiggins defined organizational climate by indicating that "Conceptually, organizational climate is that state of the organization which results from the interaction that takes place between organizational members as they fulfill their prescribed roles while satisfying their individual needs."[2]

Halpin and Croft's Investigation

Hemphill's studies on Group Dimensions[3] had impact on the development of the OCDQ developed by Halpin and Croft. The Leader Behavior Description Questionnaire, developed by

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[1]Richard C. Lonsdale, "Maintaining the Organization in Dynamic Equilibrium," in D. Griffiths (ed.), Behavioral Science and Educational Administration, Sixty-third Yearbook of the National Society for the Study of Education, Part II, (Chicago: University of Chicago Press, 1964), p. 166.

[2]Thomas W. Wiggins, "Principal Behavior in the School Climate: A System Analysis," Educational Technology, Vol. II (September 1971), p. 57.

[3]John Hemphill, "The Measurement of Group Dimensions," Journal of Psychology, Vol. 29, 1950, pp. 325-342; also in John K. Hemphill, Group Dimension: A Manual for Their Measurement (Columbus, Ohio: Bureau of Business Research, The Ohio State University, 1956).

the Personnel Research Board at The Ohio State University also had impact upon the development of the OCDQ. The contributions of these earlier studies to the development of the concept of organizational climate was described by Halpin and Croft as follows:

> The literature contributed additional items to our instrument. Specifically, other instruments such as the Leader Behavior Description Questionnaire and the Group Dimension Description Questionnaire provided us with items that fitted easily into the proposed questionnaire. Then, too, by analyzing the content of the new items which we had gathered, it became possible for us to infer new dimensions of social interaction which these items might be reflecting. Where such inferred dimensions contained a paucity of items, we wrote additional items which we hoped would pin down and identify these new, tentative dimensions.[1]

Halpin and Croft's investigation was described as an alternative to the concept of morale which, according to Halpin, failed to tell us enough about the school's organizational climate. In this regard, Halpin and Croft stated that:

> Paradoxically enough, we are dealing with both more and less than what is referred to as "morale." We are mapping roughly the same domain of inquiry that other investigators have described as "morale," but we are seeking to conceptualize, or if you will, to map this domain in a somewhat different way . . .[2]

However, organizational climate does not mean just the morale of the school, though it does contain morale

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[1]Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Chicago: Midwest Administration Center, University of Chicago, 1963), pp. 20-21.

[2]Halpin and Croft, op. cit., pp. 5-6.

factors. Morale is a leading factor in organization climate and plays a leading role in the type of climate possessed by the school. A portion of the differences one finds among schools then, is probably due to the level of morale there.[1]

Halpin and Croft were the first to examine the organizational climate of schools. They constructed the Organizational Climate Description Questionnaire (OCDQ) that permitted them to portray the organizational climate of an elementary school. The instrument used included a series of Likert-type items which, when responded to, described the perceived relationships among teachers and their relationships with their principals.

Halpin and Croft described Organizational Climate in their investigation as follows:

> Accordingly in this report we will deal with only this one component of the Organizational Climate: when we speak of the Organizational Climate within the present context we will refer exclusively to the social interaction between the principal and the teachers--to the "social component" of the Organizational Climate.[2]

The interaction between teachers and principal differs from one school to the other. These differences that exist from one school to another were described by Halpin as

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[1]Robert L. Maggard, "A Comparison of Principal's and Teachers' Perceptions of Organizational Climate in Elementary Schools" (unpublished doctoral dissertation, University of Arkansas, 1972), p. 19.

[2]Andrew W. Halpin and Donald B. Croft, The Organizational Climate of Schools (Chicago: Midwest Administration Center, The University of Chicago, 1963), p. 7.

"feel." He described this situation as follows:

> In one school the teachers and the principal are zestful and exude confidence in what they are doing--in a second school the brooding discontent of the teachers is palpable--a third school is marked by neither joy or despair, but by hollow ritual--and so, too, as one moves to other schools, one finds that each appears to have a "personality" of its own. It is this "personality" that we describe here as the "Organizational Climate" of the school. Analogously, personality is to the individual what Organizational Climate is to the Organization.[1]

These differences between schools provided the major impetus for Halpin and Croft's investigation. However, they also sought to map the domain of organizational climate, to identify and describe its dimensions, and to measure them in a dependable way which would minimize those limitations that necessarily inhere in every instrument which must in the final instance, rely upon some form of subjective judgment.[2]

The Organizational Climate Description Questionnaire (OCDQ) has undergone several tests and revisions. Form I of OCDQ had 600 items which were reduced to 160 items in OCDQ Form II. These were reduced to 80 items in OCDQ Form III. "By now we reduced the OCDQ to 64 items which compose the final form, Form IV, of the questionnaire."[3]

The sixty-four items in the OCDQ were assigned to eight subtests which were delineated by factor-analytic

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[1]Andrew W. Halpin, Theory and Research in Administration (New York: The Macmillan Company, 1966), p. 131.

[2]Ibid., pp. 131-132.

[3]Halpin and Croft, op. cit., pp. 23-30.

methods. Four of these subtests pertain to characteristics of the faculty group as a group, and the other four to characteristics of the principal as a leader. From the scores on these eight subtests Halpin and Croft constructed, for each school, a profile, or psychograph, which depicts the school's Organizational Climate.[1]

The terms "open" and "closed" as they were used in Halpin and Croft's investigation result in part from Rokeach's study in his book, The Open and Closed Mind.[2] Even as one regards minds as open or closed, so were organizational climates viewed as open or closed.

Relative openness was determined as follows:

> Data from three subtests can be utilized to provide an index of teachers' perceptions of the relative openness of their schools' climate. "This is done by subtracting the Disengagement subtest score from the sum of the Esprit and Thrust scores for each subject." The higher the resulting scores, the more open is the respondent's perception of the school's organizational climate.[3]

In the eight subtests of the OCDQ, there are two measures of teacher behavior (esprit and intimacy) and two measures of principal behavior (thrust and consideration) in

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[1]Halpin, op. cit., p. 133.

[2]Milton Rokeach, The Open and the Closed Mind (New York: Basic Books, Inc., 1960).

[3]A. Ray Helsel, Herbert A. Aurbach, and Donald J. Willower, "Teachers' Perceptions of Organizational Climate and Expectations of Successful Change," The Journal of Experimental Education, Vol. 38, No. 1, (Fall 1969), p. 40. The middle sentence in the paragraph was quoted by authors from Alan Brown, "Two Strategies for Changing Climate," The CSA Bulletin, 4:65, July 1965.

which high scores contribute to an "open climate." Also, there are two measures of teacher behavior (disengagement and hinderance) and two measures of principal behavior (aloofness and production) in which high scores contribute to a "closed climate."

Halpin stressed the point that OCDQ is a heuristic test and that the true measure of its value comes from its being able to generate hypotheses which can be tested and then contribute to a monological network which in turn supports the construct validity of the taxonomy.[1]

The development of OCDQ by Halpin and Croft was a significant contribution to educational administration in general and the organizational climate of schools in particular. "The development of OCDQ has placed in the administrator's hand a tool enabling him to sample the staff's perceptions of the interpersonal relations."[2]

The OCDQ, as it will be referred to hereafter, allows the social climate of an individual school to be depicted by means of an analysis of the interaction occurring between the principal and the teachers as such interaction is perceived by them. Since its publication in 1962, some 125

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[1]Andrew W. Halpin, op. cit., p. 134.

[2]Carl George Roseveare, "The Validity of Selected Subtests of the Organizational Climate Description Questionnaire" (unpublished doctoral dissertation, University of Arizona, Dissertation Abstracts, Vol. 25, 1965), p. 7051.

researchers have used the OCDQ as an integral part of their studies.[1]

Research on the Organizational Climate Description Questionnaire

After Halpin and Croft's investigation of Organizational Climate, several studies were conducted involving the application of Organizational Climate Description Questionnaire (OCDQ) in different social settings. Other studies investigated the reliability and validity of the eight subtest dimensions, and the six climate categories of the OCDQ.

Perhaps the most extensive research reported thus far on the OCDQ was done by Andrews. His study was based upon data from 165 Alberta schools, including both elementary and secondary schools. He concluded that the OCDQ possesses good construct validity. He stated that the eight subtest scores had good construct validity and that the eight subtest scores were good measures of the concepts they purport to measure. However, Andrews also maintained that the "climate" categories added nothing to the meaning that was already present in the subtest scores. Also, he objected to the use of the climate categories on another ground: that the concept was somewhat misleading in the breadth it suggested.

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[1]James B. Kenney, "Factor Structure of the Organizational Climate Description Questionnaire for Teachers in Five Urban Areas." A paper presented by James B. Kenney, University of Georgia, at a conference of the American Educational Research Association, Los Angeles, California, February 7, 1969.

He noted that the OCDQ is restricted to a concern with the social interaction between principal and teachers and that it does not take into account interactions between teachers and pupils, or between the staff and parents.[1]

Watkins raised questions about the two middle school climate categories--Controlled and Familiar.[2] The following statement by Halpin was pertinent to Watkin's observations:

> The continuum that we devised does not possess or claim perfection; it has a few chips and nicks along the edges. Specifically, it is not quite fair to say that the six climates can be ranked on this continuum; at least, they can be arranged in respect to it. Yet, for heuristic purposes, in conducting the research by which the OCDQ was constructed, we treated the data as if the climates could be ranked.[3]

Other studies tended to corroborate the findings of Halpin and Croft. Brown, dealing with a Minnesota sample, concluded that the OCDQ is a well constructed instrument which can and should continue to be used. He also stated

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[1]Andrew W. Halpin, "Change and Organizational Climate," The Journal of Educational Administration, Vol. V, No. 1, (May 1967), pp. 7-8. Also see John H. M. Andrews, "Some Validity Studies of the OCDQ," Canadian Educational and Research Digest, Vol. 5, 1965, pp. 317-334. Also see J. H. M. Andrews, "What School Climate Conditions Are Desirable?" The CSA Bulletin, IV, No. 5, (July 1965), pp. 7-21.

[2]James Foster Watkins, "The OCDQ--An Application and Implication," Educational Administration Quarterly, Vol. 4, No. 2, (Spring 1968), p. 52.

[3]Andrew W. Halpin, Theory and Research in Administration (New York: The Macmillan Co., 1966), p. 134.

that the reliability of the OCDQ appeared to be adequate.[1]

Roseveare found that the subtest Thrust of the OCDQ was a valid measure and the subtest Esprit of the OCDQ seemed to have validity, but the data were not exclusive. The subtests Intimacy, Aloofness, and Production Emphasis contained very low reliability coefficients in his sample.[2]

Hayes reappraised the Organizational Climate Description Questionnaire (OCDQ). His factor analysis revealed nine dimensions which were tapped by the OCDQ. Two of these dimensions were not identified by Halpin and Croft. The Aloofness dimension could not be identified from the data. He indicated that the OCDQ, in its present form, will measure, with different degrees of dependability, all the dimensions which were identified by Halpin and Croft except Aloofness. Furthermore, the OCDQ will provide measures of Logistical Support and Object Socialization--the two additional dimensions which were revealed in Hayes' study.[3]

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[1]Robert John Brown, "Identifying and Classifying Organizational Climates in Twin City Area Elementary Schools" (unpublished doctoral dissertation, University of Minnesota, Abstract, Dissertation Abstracts, Vol. 26, 1965), pp. 162-163.

[2]Carl George Roseveare, "The Validity of Selected Subtests of the Organizational Climate Description Questionnaire" (unpublished doctoral dissertation, University of Arizona, Abstract, Dissertation Abstracts, Vol. 25, 1965), p. 7051-A.

[3]Andrew Eugene Hayes, "A Reappraisal of the Organizational Climate Description Questionnaire" (University of Georgia, 1972, Abstract, Dissertation Abstracts, Vol. 33, 1973), p. 4730-A.

In another study, the concept of organizational climate as identified by the Organizational Climate Description Questionnaire was found to be empirically sound and viable. The findings led the researcher to conclude that the Organizational Climate Description Questionnaire was externally consistent as well as internally so. In addition, the empirical findings appeared to be consistent with the internal definitions of organizational climate devised by Halpin and Croft.[1]

Pritchard also indicated that eight subtest dimensions of the OCDQ were viable concepts which can be used to assess the favorability of work atmosphere surrounding an elementary school. However, he questioned the validity of the six prototypic climates.[2]

Although the OCDQ was developed primarily for elementary schools, several studies have established its applicability to junior and senior high schools. Andrews indicated that "the OCDQ is as valid for secondary schools

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[1]David Coles Smith, "Relationships Between External Variables and the Organizational Climate Description Questionnaire" (unpublished doctoral dissertation, Northwestern University, 1966, Abstract; Dissertation Abstracts, Vol. 27, 1967), p. 2042-A.

[2]James Leon Pritchard, "Validation of the Organizational Climate Description Questionnaire Against Perceptions of Non-Faculty School Personnel" (unpublished doctoral dissertation, Stanford University, Abstract; Dissertation Abstracts, Vol. 27, 1967), p. 2038-A.

as it is for elementary schools."[1] Sargent stated in this regard that:

> Although the early studies involving use of the questionnaire developed by Halpin and Croft had been limited to elementary schools, the items appeared equally applicable to other organizations and particularly to secondary schools.[2]

The OCDQ has also been used in several studies in which the subtest scores have been correlated with independent measures of the personality and the personal value-patterns of the school principals. These studies revealed statistically significant relationships which are meaningful and possess practical value.[3]

McFadden, using the OCDQ with nonparticipant observers, concluded that outside (nonparticipant) observers were able to agree significantly in (a) their ratings of the eight OCDQ subtest categories of principal and teacher behavior, and (b) their evaluations of the six climate types derived from the OCDQ.[4]

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[1]John H. M. Andrews, "Some Validity Studies of the OCDQ," Canadian Education and Research Digest, 5 (December 1965), pp. 317-334.

[2]James Currier Sargent, "An Analysis of Principal and Staff Perceptions of High School Organizational Climate" (unpublished doctoral dissertation, University of Minnesota, 1966), p. 5.

[3]Andrew W. Halpin, "Change and Organizational Climate," The Journal of Educational Administration, Vol. 5, No. 1, 1967, p. 9.

[4]Edward Clayton McFadden, "The Non Participant Observer and Organizational Climate" (unpublished doctoral dissertation, Stanford University, 1966, Abstract; Dissertation Abstracts, Vol. 27, 1966), pp. 78-79-A.

Bowers investigated organizational climate in multi-unit and traditional elementary schools and in his findings he stated that:

> In comparison with traditional schools, multi-unit schools were found to have significantly less control press. As such, they were less inhibitive or restrictive of personal expressiveness; more concerned with intellectual activities and social action; and have higher press for achievement through hard work, perseverance and a total day-by-day commitment of institutional purposes.
>
> The organizational climate of traditional schools, in comparison with multi-unit schools, was found to be characterized by sameness, passivity, deliberation, and order. No significant differences in the organization of traditional schools and multi-unit schools were found on the factors of practicalness and orderliness and on the scales of aggression, deference, dominance, ego achievement, exhibitionism, harm avoidance, humanities, nurturance and sexuality.[1]

Organizational climate was investigated in disadvantaged and affluent schools. The major finding of Rogers indicated that there was a significant tendency toward a closed climate in the disadvantaged and affluent secondary schools and also in the disadvantaged elementary schools. He stated that the eight behavior variables measured by the OCDQ were a reasonably accurate basis for predicting membership in the advantaged and affluent groups.[2]

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[1]George Robert Bowers, "The Organizational Climate in Selected Ohio Multi-unit and Traditional Elementary Schools" (unpublished doctoral dissertation, The University of Akron, Abstract; Dissertation Abstracts, Vol. 34, 1973), p. 1514-A.

[2]Luther Rayford Roger, "A Comparative Study of Organizational Climate in Disadvantaged and Affluent Schools" (unpublished doctoral dissertation, The University of Florida, Abstract; Dissertation Abstracts, Vol. 31, 1970), p. 122-A.

Communication may be importantly related to the organizational climate of schools. Dugan found a significant relationship between the communication behavior of the principals and the organizational climates of their schools.[1]

The application of the OCDQ as a research tool for measuring school climates was described by Halpin as follows:

> We surmise, too, that the organizational climate that we find in an elementary school may be related to such demographic factors as whether it is a new or old school; whether it is located in a wealthy suburb or in a deteriorated slum; and whether it is set in a metropolitan center, a village, or a rural area.[2]

Use of the Organizational Climate Description Questionnaire in Centralized Systems of Education

The OCDQ has been used in the centralized system of Hawaii (U.S.), centralized system of Manitoba (Canada), and the centralized system of South Australia (Australia). It has also been used in developing countries such as Korea, Pakistan, Paraguay, India, Philippines, and Bolivia.

Okada investigated organizational climate in the state of Hawaii. With the use of the Decision Point Analysis, the four school administrative districts located on Oahu,

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[1]Peter Jerome Dugan, "The Relationship Between the Communication Behavior of Elementary School Principals and the Organizational Climates of their Schools" (unpublished doctoral dissertation, Syracuse University, Dissertation Abstracts, Vol. 28, 1968), p. 3920-A.

[2]Andrew W. Halpin, Theory and Research in Administration (New York: Macmillan Company, 1966), p. 201.

Hawaii, dichotomized into decentralized and centralized groups. From each grouping, five elementary schools, showing extremes in DPA scores, were identified. The OCDQ was administered to all professional staff members of the ten selected schools.[1]

Okada found that there were significant differences between the two groups. The decentralized group tended to be more open with higher Esprit and Intimacy. There were no significant differences between the two groups for the dimensions of Disengagement, Hinderance, Aloofness, Production Emphasis, Thrust, and Consideration. The degree of centralization did not seem to affect the staff perceptions of these dimensions. Other findings included very low correlation between the school administrative districts' decision-making structure and school organizational climate. This suggested that there was no consistent relationship between these two factors. It was also found that open climate schools were just as likely to be in centralized as decentralized systems.[2]

Roseborough conducted a study on organizational climate in the provincially centralized system of Manitoba, Canada. He described the significance of his study as follows:

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[1]Edward Setsuo Okada, "A Study of the Relationship Between Decision Making of Selected School Administrative Districts and Organizational Climate of Selected Schools of Hawaii" (unpublished doctoral dissertation, Utah State University, Dissertation Abstracts, Vol. 33, 1972), p. 4755-A.

[2]Ibid.

> The significance of this study lies in its potential for providing empirical data which can be used to depict the Organizational Climates of selected secondary schools in Manitoba--if one were asked to name a common thread running through and linking every school in Manitoba, it would likely be governmental centralization. Seemingly, it would be helpful to establish whether or not there exists in Manitoba a preponderant pattern of "closedness" among the Organizational Climates of selected urban, suburban, and rural high schools in Manitoba in order to test whether or not governmental centralization is a factor related to the nature of the Organizational Climate of these schools.[2]

Roseborough concluded in his study that not one of the eighteen schools representing twelve school districts in Manitoba was designated as being Open, Autonomous or Controlled, i.e., the open end of the Organizational Climate continuum. In fact, the remarkable similarity of teachers' perceptions, both between and among schools, was most notable.[3]

Thomas and Slater used the OCDQ in South Australia. Their study was part of a much wider investigation into organizational climates of Australian schools conducted by the Department of Education, University of New England.

The seventy-two South Australian elementary schools selected--unlike those of the original Halpin and Croft

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[1] Ibid., pp. 4755-4756-A.

[2] Barry Wayne Roseborough, "A Study of Organizational Climates in a Provincially Centralized System of Public Schools" (unpublished doctoral dissertation, University of Michigan, 1971), pp. 39-40.

[3] Ibid., pp. 219-220.

sample--were representative of all sizes of schools and of urban, suburban and rural localities in the State. Although respondents were, in effect, representative of a diversified sample of schools, all such teachers were members of one (state) system of education.[1]

This study showed that the OCDQ does serve to discriminate between the "tone" or "Organizational Climate" of Australian primary schools. The four dimensions--Supportiveness, Operations Emphasis, Intimacy and Disaffiliation--which emerged from this study, appeared to hold both logic and significance for teachers and administrators in Australian schools.[2]

Nirmal Mehra used the OCDQ to measure the climate of the secondary schools in the state of Delhi in India. An ancillary objective of his study, accordingly, was to explore the applicability of the OCDQ to schools in India--a country with different cultural and administrative conditions. His results were consistent with those of Halpin. "The following eight dimensions are identified in Disengagement, Aviscidity, Esprit, Intimacy, Controls, Hindrance, Thrust, and Task-

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[1]A. Ross Thomas and R. C. Slater, "The OCDQ: A Four Solution for Australian Schools?" The Journal of Educational Administration, Vol. 10, No. 2, (October 1972), pp. 197-208.

[2]Ibid., p. 204.

Orientation."[1] Also, Esprit, Social Needs and Social Control are identified. He concluded that:

(1) Girls schools are more open than boys schools;
(2) Government schools are more open than private-aided schools; and
(3) the factor of school location is relatively independent of the climate factor.

Mehra indicated that the OCDQ, with some modifications and strengthening, could be used to measure the organizational climate of secondary schools in India.[2]

Jusefina R. Resurrection replicated the work of Halpin and Croft in the identification of organizational climates of elementary schools with the use of the OCDQ. His purposes included testing the reliability of the OCDQ as a research instrument in Manila, a different cultural setting, and establishing OCDQ norms in Manila, Philippines.[3]

Resurrection found that it was possible to classify the schools into organizational climate categories. Four Manila climate categories were found. Two climate categories were comparable to Halpin's Open and Closed climate categories, and two Manila climates appeared to be hybrids of climates

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[1]Nirmal Mehra, "Organizational Climate of Secondary Schools: State of Delhi, India" (unpublished doctoral dissertation, University of California, Berkeley, 1967, Dissertation Abstracts, 29), p. 100.

[2]Ibid., p. 100.

[3]Jusefina R. Resurrection, "Identifying and Classifying Organizational Climates of Elementary Schools in Manila" (unpublished doctoral dissertation, Dissertation Abstracts, 30), p. 111-A.

identified by Halpin: (1) Autonomous-Familiar; (2) Controlled-Paternal. He concluded that:

1. Types of organizational climates can be identified with the use of OCDQ in Manila schools and it is possible to rank the climates along a general continuum--from open to closed.
2. The Manila sample is a good norm group for uses of the OCDQ in comparable areas in the Philippines.
3. Reliability of the instrument appears to be low but additional research is needed along this line.[1]

Dale Warren Good investigated the viability of theoretical constructs and instrumentation in the Bolivian educational system. He translated Halpin and Croft's Organizational Climate Description Questionnaire into Spanish. The Bolivian OCDQ was pilot tested in 1969.[2]

The Bolivian OCDQ eight climate dimensions scores were used to describe differences between climate in three groups of schools. A discriminant analysis was calculated. The results indicated that the Bolovian OCDQ climate scores were valid constructs for describing the differences between groups of the schools.[3]

The investigator concluded that the climate of public urban elementary schools in Bolivia could be adequately described with the Bolovian OCDQ. The conclusion was based

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[1] Ibid., p. 111-A.

[2] Dale Warren Good, "A Study of Organizational Climate in Bolovian Urban Elementary Schools" (unpublished doctoral dissertation, University of Illinois at Urbana, Champaign, 1971), Dissertation Abstracts, 32, p. 1222-A.

[3] Ibid., p. 1222-A.

on the results of the discriminant analysis for differences between school groups and the lack of contradictory evidence from other data collected during the study.[1]

Perception of the Organizational Climate

The perception and attitudes a person holds toward others results from day to day associations and interaction with others. Personal relationships form the basis of attitudes and the ways in which others are perceived.[2]

Perception of organizational climate is important for communication and understanding in schools or other organizations. Combs stated that:

> What we do not understand about others' views produces most of our failure in human communications. This is so when we are talking about groups. Being aware of how things look from the other person's point of view makes all the difference in the likelihood of our own success in dealing with them. Without this we cannot communicate with each other. We pass each other like ships in a night.[3]

Mitchell also commented on the environment and its interaction with human needs. He stated that:

> Everyone suffers from inadequate, inappropriate, or non-fulfilling environments, and everyone stands to gain from their improvement. To study these environments,

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[1] Ibid., p. 1222-A.

[2] Louis J. Grimard, "Perceptions of the Role of the Principal as the Instructional Leader of the High School as Viewed by his Professional Associates" (unpublished doctoral dissertation, University of Southern California, 1973), p. 39.

[3] Arthur W. Combs, "The Human Aspect of Administration," Educational Leadership, Vol. 28 (November 1970), p. 199.

> their interaction with human needs, and their effect on behavior would seem to be the sine qua non of intelligent and responsible educational leadership.[1]

Schneider and Bartlett indicated that what is psychologically important to the individual must be how he perceives his work environment, not how others might choose to describe it.[2]

The perceptions regarding social relationships and organizational climate, held by the professional staff of an organization such as a school, appear to be valuable indicators of the true climate of a school. By studying the organization through the perception of others, one is less likely to induce personal bias that might accompany a more subjective type of evaluation.[3]

Feldvebel indicated that there may be conflict within schools with respect to the organization's tasks as perceived by teachers and principals.[4] Sargent, using a high school

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[1]James V. Mitchell, Jr., "Studying High School Learning Environments, Student Needs, and Their Implications for Behavior," Michigan Journal of Secondary Education, Summer 1970.

[2]B. Schneider and C. J. Bartlett, "Individual Differences and Organizational Climate, II: Measurement of Organizational Climate by the Multitrait-Multirates Matrix," Personnel Psychology, Vol. 23, 1970, 493-512.

[3]Robert L. Maggard, "A Comparison of Principal and Teachers' Perceptions of Organizational Climate in Elementary Schools" (unpublished doctoral dissertation, The University of Arkansas, 1972), p. 1.

[4]Alexander M. Feldvebel, "Organizational Climate, Social Class, and Educational Output," Administrator's Notebook, XII, April 1964, p. 3.

sample, reported that:

> Consistent differences appeared between principals and teachers in their perceptions of seven of the eight climate dimensions, with the principals, in each case, viewing the dimension more favorably than the teachers.[1]

According to Sargent, principals perceived seven of the eight dimensions significantly more favorably than did teachers. Only Aloofness was seen alike by both groups.[2]

Sargent explained the differences in perception as follows:

> Perhaps the principals have a greater emotional investment in their schools and hence are inclined to view climate factors less objectively. This may be so particularly since the items in this questionnaire (OCDQ) refer, in many cases, to situations for which a principal is obviously responsible or at least influential.[3]

Sargent indicated that schools in which role and personality integration has become effective enough to permit "genuine" behavior should have verbal and nonverbal behavior conveying like messages.[4]

Sargent believed that communication played an important part in the degree of congruence of teachers' and

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[1]James Currier Sargent, "An Analysis of Principal and Staff Perceptions of High School Organizational Climate" (unpublished doctoral dissertation, University of Minnesota, 1966), pp. 194-195.

[2]Ibid., p. 168.

[3]James Currier Sargent, Organizational Climate of High Schools, Educational Research and Development Council of the Twin Cities Metropolitan Area, Inc., University of Minnesota, Minneapolis, Minnesota, 1967; also cited in Maggard, op. cit., p. 38.

[4]Ibid., p. 213.

principals' perceptions of organizational climates. He felt that a greater opportunity for communication between and among all members of a social system will result in a greater probability that a common understanding of mutually desirable behaviors will occur.[1]

The divergence and congruence in perception were also found by Boisen. She stated that:

> Both divergence and congruence were found between teachers' and principals' perception for the climates and the behavioral dimensions. Principals tended to view the climate more favorably than did teachers. In schools perceived by the teachers to be on the closed end of the continuum, there was greater divergence in perception. Teacher expectations for organizational climate were at variance with their own perceptions while principals' expectations and perceptions were related. Neither principals nor the teachers perceived behavior which measured up to their beliefs about what the behavior should be.[2]

Symanski indicated that experienced elementary school teachers perceived the elementary school principal's behavior as being very effective. There was positive correlation between teacher perceptions of the elementary principal's behavior and teacher's morale tendency.[3]

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[1]Robert L. Maggard, "A Comparison of Principals' and Teachers' Perceptions of Organizational Climate in Elementary Schools" (unpublished doctoral dissertation, University of Arkansas, 1972), p. 39.

[2]Angeline G. Boisen, "Relationships Among the Perceptions and Expectations Held by Principals and Teachers for the Organizational Climate of Elementary Schools" (unpublished doctoral dissertation, University of Maryland, Dissertation Abstracts, Vol. 27, 1967), pp. 2763-4-A.

[3]G. Gregory Symanski, "The Elementary School Principal as Perceived by Experienced Elementary School Teachers" (unpublished doctoral dissertation, New York University, Dissertation Abstracts, Vol. 28, 1968), p. 3953-A.

Associated with morale, Hood indicated that the principal appeared to be the prime determinant in teacher morale. He stated that:

> The principal is the key non-personal factor in the professional environment of the teacher. The teacher's relationship with the principal is more important in determining morale level than is the teacher's relationships with other faculty members.[1]

Friesen made an assessment of openness as viewed by administrators, teachers, and students. He compared the perception of climate of three groups in two schools: one open campus school and one traditional organized school. He concluded that student perceptions of open climate do not necessarily follow from administrator or teacher perceptions of openness in school climate.[2]

Maggard compared the perception of principals and teachers of organizational climate in elementary schools. He found that:

> Principals and teachers held significantly different perceptions of organizational climate, and a strong tendency existed for the principals to perceive climate in a more open direction. Significant differences were found on seven of the eight climate subtests when principals' and teachers' perceptions were compared. In six of these differences, the principals' perceptions were different in the direction of a more open climate.[3]

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[1]Evans C. Hood, "A Study of Congruence of Perceptions Concerning Factors Which Affect Teacher Morale" (unpublished doctoral dissertation, East Texas State University, Dissertation Abstracts, Vol. 27, 1965), p. 1589-A.

[2]D. Friesen, "Variations in Perceptions of Organizational Climate," Alberta Journal of Educational Research, Vol. 18, No. 2, (June 1972), pp. 91-99.

[3]Robert L. Maggard, op. cit., pp. 132-144.

Franklin conducted a study in junior high schools. He found that there was no significant relationship between the sex of the principal and the organizational climate of his school.[1]

The agreement in perception of organizational climate was noted by Hunt. He indicated that when taken as a total group, principals' perceptions of their own behaviors were in agreement with the perception of their staffs.[2]

Watkins indicated that principals and their staffs differed significantly in their perceptions of the organizational climates of their schools. Principals tend to perceive the climates to be more Open than do the members of their professional staffs. He further stated that Negro staffs tended to perceive their schools to be more Closed in their organizational climate than do the staffs of the white schools.[3]

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[1]Arthur Jewel Franklin, "An Investigation of the Relationship Between Selected Characteristics of Principals and Organizational Climate of Junior High Schools in the State of Louisiana" (unpublished doctoral dissertation, University of Southern Mississippi, Dissertation Abstracts, Vol. 28, 1968), p. 1070-A.

[2]James Edmund Hunt, "Expectation and Perceptions of the Leadership Behavior of Elementary School Principals" (unpublished doctoral dissertation, St. John's University, Dissertation Abstracts, Vol. 28, 1968), p. 4852-3-A.

[3]James Foster Watkins, "The Relationship Between the Principal and His Professional Staff in Public School" (unpublished doctoral dissertation, Auburn University, Dissertation Abstracts, Vol. 27, 1967), p. 2349-50-A.

Nelson indicated that teachers tended to perceive a relatively open climate, as indicated by seven of the eight factors of the OCDQ, in schools led by principals whom the teachers perceived to reflect a high level of reinforcement behavior, and a relatively closed climate tended to be perceived in schools led by principals whom teachers perceived to reflect a low level of reinforcement.[1]

Gist found no statistical support existed for the concept that there are positive relationships among the organizational climates found in the offices of the assistant superintendents and the climates found in the offices of the principals.[2]

French found that principals perceived their school's climate more open than did their teachers. However, the differences were not great enough to be statistically significant.[3]

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[1]Robert Houston Nelson, "Relationship Between Teacher Perception of Reinforcing Behavior of the Principal and the Organizational Climate of Elementary Schools" (unpublished doctoral dissertation, Purdue University, 1972, Dissertation Abstracts, Vol. 33, 1972), p. 536-A.

[2]John Gilbert Gist, "Relationship Among the Organizational Climates in Elementary Schools and the Next Higher Hierarchical Level in a Large School System" (unpublished doctoral dissertation, University of Maryland, Dissertation Abstracts, Vol. 33, 1972), p. 2018-A.

[3]Denney Gerald French, "The Relationships Between Teachers' and Principals' Perceptions of Organizational Climate in Elementary Schools and Principals' Perceptions of Administrative Skills" (unpublished doctoral dissertation, Purdue University, Dissertation Abstracts, Vol. 32, 1972), p. 4280-A.

Rogers indicated that teachers in affluent elementary schools did not perceive the climate to tend toward either openness or closedness. He stated that teachers in the disadvantaged schools and teachers in the affluent schools differed significantly with respect to perceptions of organizational climate. He found also that teachers' perceptions of organizational climate differed significantly between elementary and secondary schools. The principals of affluent and disadvantaged schools did not differ significantly in their perceptions of organizational climate.[1]

Flanders found that white and Negro faculties differed significantly in their perception of organizational climate of their schools. There was no significant difference between the faculties of rural Negro and urban Negro schools. The white teachers tended to perceive their school climate as being on the "open" end of the climate continuum. Negro teachers perceived their school climate as being on the "closed" end of the climate continuum.[2]

Gentry and Kenney concluded from their study that the higher the economic level of the school community the

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[1]Luther Rayford Rogers, op. cit., p. 122-A.

[2]Robert Edward Flanders, "The Relationship of Selected Variables to the Organizational Climate of the Elementary School" (unpublished doctoral dissertation, University of Georgia, 1966, Dissertation Abstracts, Vol. 27, 1966), pp. 2313-2314-A.

higher the probability of a more open climate.[1]

Summary

Education in Saudi Arabia is highly centralized without appropriate communication systems between the central educational organizations, educational districts, and the local schools. There is overlapping between the functions of the educational agencies which hinders their effectiveness and their efficiency in providing high quality education in Saudi Arabia.

Many schools have been established without prior planning and appropriate projection of school enrollments. Personal relations and favoritism have contributed to the inadequacies in the educational system. Favorable school environments have been hindered by several problems such as: communication, staffing, working conditions of the administrators, recruitment and selection of the administrators and teachers, teacher training and administrator training. The system also faces several problems such as the shortage of citizen teachers and the shortage of educational facilities and appropriate school buildings at all educational levels.

Organizational climate is a new concept and seldom found in research prior to the 1950s. Theories of

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[1]Harold W. Gentry and James B. Kenney, "The Relationship Between the Organizational Climate of Elementary Schools and School Location, School Size, and the Economic Level of the School Community," Urban Education, Vol. III, No. 1, 1967, pp. 25-26.

organizations have contributed to the development of the concept of organizational climate. Several writers have defined organizational climate, but Halpin and Croft were leaders in the development of an instrument which deals with school climates. The Organizational Climate Description Questionnaire (OCDQ) is considered one of the better known instruments for investigating the social climates of schools. The OCDQ has generated several studies in the United States and in other countries.

The research indicated that the OCDQ is applicable in the United States and developing countries. It has been used in India, the Philippines, and in the school systems of advanced nations with highly centralized control.

CHAPTER III

METHODS AND PROCEDURE

Introduction

The problem of this study was to investigate the perceptions of teachers and principals of the organizational climates of selected schools in Riyadh, Saudi Arabia, in relation to location of the school, type of school building, type of education (boys or girls) and type of nationality (Saudi or non-Saudi) of the teacher.

The purpose of the study was to determine the significant differences, if any, in the perceptions of teachers and principals for the eight dimensions of organizational climate as identified by use of the Halpin and Croft Organizational Climate Description Questionnaire. These dimensions were also referred to as the "elements" of the climate. Several hypotheses and research questions were stated in Chapter I.

The level of statistical significance established for the investigation was .05. Ferguson indicated that:

> The .05 level was originally chosen . . . and has persisted with researchers--because it is considered a reasonably good gamble. It is neither too high

nor too low for most social scientific research. The .05 and .01 levels have been widely advocated.[1]

Population and Sample

The population from which the sample was drawn consisted of 986 teachers and principals. A random sample of 476 teachers and principals was selected. Fifty-five elementary and intermediate schools were selected for the purpose of the study. The schools were divided into four groups as follows:

1) 19 elementary schools for boys

2) 17 elementary schools for girls

3) 15 intermediate schools for boys

4) 4 intermediate schools for girls.

Specific criteria were used in the selection process. The criteria were established so that schools representing both low and high socioeconomic levels would be included in the sample.

The criteria used were as follows:

Low Socioeconomic Level

1. The houses surrounding the school were constructed of mud.

2. There were no paved streets.

3. Living conditions were crowded.

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[1]George A. Ferguson, Statistical Analysis in Psychology and Education (New York: McGraw-Hill Book Company, 1971), p. 139.

High Socioeconomic Level

1. The school was located away from the center of Riyadh.
2. The school was surrounded by villas.
3. The streets around the school were paved.
4. Living conditions were not crowded.

The total sample consisted of fifty-five schools with fifty-five principals and four hundred twenty-two teachers. One teacher was misclassified and was not included which meant the total number of teachers was four hundred twenty-one.

Riyadh Educational District for boys' education has located its schools on a map of the city. (See Appendix C.) Generally, the schools in the northern part of the city have better educational facilities than the schools in the southern part of the city.

Procedure for Collecting Data

The investigator sought permission from the Macmillan Company to translate into Arabic the Organizational Climate Description Questionnaire (OCDQ) developed by Halpin and Croft. That permission was granted (see Appendix G).

The investigator selected the schools in Riyadh, Saudi Arabia, which satisfied the criteria for low and high socioeconomic areas. All boys' schools were visited and the use of the instrument was expalined to principals and teachers. The principals and teachers were asked to complete

the questionnaires so that they could be collected at a later time. After two or more additional visits to each school, all questionnaires were collected.

Since customs prohibit men from entering the girls' schools, it was necessary to use a different approach in collecting data from principals and teachers in those schools. Assistance was sought and obtained from the Girls' Education School District. The District sent the questionnaires to the schools along with a memorandum asking the participants for full cooperation in the study. An explanation of the instrument and the method of response was included with the questionnaire. The investigator was able to obtain the completed questionnaires from the District office.

Instrumentation

The instrument selected for the investigation of the problem was the Organizational Climate Description Questionnaire which is referred to as OCDQ. This instrument was developed in 1963 by Halpin and Croft in an effort to portray the Organizational Climate of an elementary school.

Halpin and Croft began their development of the OCDQ with a pool of 1,000 items. These were reduced through testing three preliminary forms of the OCDQ. Major analysis was done with data obtained by using Form III with 1,151 respondents in a total of 71 schools. Form III contained eighty items and the analysis showed it could be reduced to

sixty-four items. Form IV, the final version, was used in this study and includes sixty-four items.[1] (See Appendix D.)

Halpin and Croft prepared a set of simple statements and asked the respondent to indicate to what extent each statement characterized his school. The following items illustrate the kinds of statements used:

1. The principal insures that teachers work to their full capacity.
2. The principal is in the building before teachers arrive.
3. The principal helps teachers solve personal problems.
4. Teachers ask nonsensical questions in faculty meetings.
5. Most of the teachers here accept the faults of their colleagues.[2]

Halpin reported that the scale is to be marked according to frequency of occurrence in the school. The fundamental question was raised to illustrate this frequency:

> "How true is this in your school?" and this, indeed, is how the teachers and the principals respond to the items . . . when, for example, a faculty describes the organizational Climate of its school as Open, the question "Is it really Open?" is unanswerable and irrelevant. The climate is open if the faculty perceives it as open.[3]

The scale against which the respondent indicated the extent to which each statement characterized his school included four categories: (1) Rarely occurs; (2) Sometimes

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[1]Andrew W. Halpin, Theory and Research in Administration (New York: The Macmillan Company, 1966), p. 131.

[2]Andrew W. Halpin and Don B. Croft, The Organizational Climate of Schools (Chicago: Midwest Administration Center, University of Chicago, 1963), pp. 20-21.

[3]Halpin, op. cit., p. 147.

occurs; (3) Often occurs; and (4) Very frequently occurs.

The sixty-four items of the OCDQ were grouped into eight subtests which are used as indices of the Organizational Climate of a school. Items which composed these eight corresponding subtests were listed in Appendix E.

The first four subtests refer primarily to the behavior of the teachers, and the second four subtests refer to the behavior of the principal. These eight dimensions of Organizational Climate are defined by Halpin and Croft as follows:

Teachers' Behavior

> (1) Disengagement refers to the teachers' tendency to be "not with it." This dimension describes a group which is "going through the motions," a group that is "not in gear" with respect to the task at hand. It corresponds to the more general concept of anomie as first described by Durkheim. In short, this subtest focuses upon the teachers' behavior in a task-oriented situation.
>
> (2) Hindrance refers to the teachers' feeling that the principal burdens them with routine duties, committee demands, and other requirements which the teachers construe as unnecessary busy-work. The teachers perceive that the principal is hindering rather than facilitating their work.
>
> (3) Esprit refers to morale. The teachers feel that their social needs are being satisfied, and that they are, at the same time, enjoying a sense of accomplishment in their job.
>
> (4) Intimacy refers to the teachers' enjoyment of friendly social relations with each other. This dimension describes a social-needs satisfaction which is not necessarily associated with a task-accomplishment.

Principals' Behavior

(5) Aloofness refers to behavior by the principal which is characterized as formal and impersonal. He "goes by the book" and prefers to be guided by rules and policies rather than to deal with the teachers in an informal, face-to-face situation. His behavior, in brief, is universalistic rather than particularistic; monothetic rather than idiosyncratic. To maintain this style, he keeps himself--at least "emotionally"--at a distance from his staff.

(6) Production emphasis refers to behavior by the principal which is characterized by close supervision of the staff. He is highly directive, and plays the role of a "straw boss." His communication tends to go in only one direction, and he is not sensitive to feedback from the staff.

(7) Thrust refers to behavior by the principal which is characterized by his evident effort in trying to "move the organization," "Thrust" behavior is marked not by close supervision, but by the principal's attempts to motivate the teachers through the example which he personally sets. Apparently, because he does not ask the teachers to give of themselves any more than he willingly gives of himself, his behavior, though starkly task-oriented, is nonetheless viewed favorably by the teachers.

(8) Consideration refers to behavior by the principal which is characterized by an inclination to treat the teachers "humanly," to try to do a little something extra for them in human terms.[1]

By utilizing a factor analysis technique, Halpin and Croft were able to identify six distinct profiles of Organizational Climate arrayed along a continuum defined at one end as Open Climate, and at the other, by Closed Climate.[2] The definition of these six climates was included in Appendix F.

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[1] Ibid., pp. 29-32.

[2] Halpin, op. cit., p. 134.

The research showed that the OCDQ is a valid and reliable instrument, especially at the dimensional level. Its application in the United States, other advanced countries, and in developing countries, justified its use in Saudi Arabia.

Although the OCDQ was primarily developed for elementary schools, research also indicated that it was applicable for junior high schools, and high schools.[1]

The reliability of the OCDQ was described by Halpin and Croft as follows:

> Nonetheless, we could use three other ways to estimate coefficients of internal consistency and coefficients of equivalence (i.e., reliability) for each subtest. The least applicable estimate would be that secured from the split-half reliability, corrected, of course, by the Spearman-Brown prophecy formula. We simply did not have enough items in each subtest to allow us to rely too heavily upon these estimates. Since we were more focally concerned with the dependability of the group's perception of the school's Organizational Climate, a second and more appropriate method was to compute the correlation, subtest by subtest, between the description of the Climate given by the odd-numbered teachers and that given by the even-numbered teachers. A third estimate--and perhaps the most pertinent--could be secured from the test score communalities that were computed from three-factor rotational solution for the eight subtests. (High communality can result only when there is equivalence, or adequacy, of item sampling; hence, the communality can be interpreted as "a coefficient of equivalence.")[2]

The estimates of internal consistency and of equivalence for the eight OCDQ subtests is included in Table 1. The data indicate that the reliability of the OCDQ is acceptable.

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[1] See Chapter II.

[2] Halpin and Croft, op. cit., p. 48.

TABLE 1

ESTIMATES OF INTERNAL CONSISTENCY AND OF EQUIVALENCE FOR THE EIGHT OCDQ SUBTESTS[1]

OCDQ Subtest	Split-half Coefficient of Reliability, Corrected by the Spearman-Brown Formula[a] (N = 1,151)	Correlation Between Scores of the Odd-Numbered and Even-Numbered Respondents in Each School[b] (N = 71)	Communality Estimates[c] for Three-Factor Rotational Solution (N = 1,151)
1. Disengagement	.73	.59	.66
2. Hinderance	.68	.54	.44
3. Esprit	.75	.61	.73
4. Intimacy	.60	.49	.53
5. Aloofness	.26	.76	.72
6. Production Emphasis	.55	.73	.53
7. Thurst	.84	.75	.69
8. Consideration	.59	.63	.64

[a]Estimate of internal consistency.

[b]Estimate of equivalence.

[c]These are lower-bound, conservative estimates of equivalence.

[1]Halpin and Croft, The Organizational Climate of Schools, Midwest Administration Center, The University of Chicago, 1963, p. 49.

The acceptable reliability of the OCDQ was again demonstrated by Anderson with a Minnesota sample who in a test-retest Pearsonian r correlation as well as an odd-even respondent Pearsonian r. These data are contained in Table 2.

TABLE 2

ANDERSON'S RELIABILITY COEFFICIENTS[1]

	Test-Retest Pearson r	Pearson r Correlation of Odd-Even Respondents
Disengagement	+.567	+.541
Hindrance	+.458	+.791
Esprit	+.805	+685
Intimacy	+.653	+.668
Aloofness	+.196	+.708
Production Emphasis	+.787	+.692
Thrust	+.504	+.763
Consideration	+.805	+.556

Treatment of the Data

Each item of the OCDQ was translated into Arabic so that it had the same meaning as the original instrument. The translation also took account of the Saudi Arabian setting. This required minor changes in some of the items, but they did not alter the basic meanings of the items.

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[1]Donald P. Anderson, "Relationship Between Organizational Climate of Elementary Schools and Personal Variables of Principals" (unpublished doctoral dissertation, University of Minnesota, 1964), p. 21; cited in Carl Helwig, op. cit., p. 36.

The items changed were as follows: Item number 34 in the English form of the OCDQ is stated as: "Teachers eat lunch by themselves in their own classrooms."

In Saudi Arabia, teachers do not eat lunch in the school, but they drink tea, or soft drinks, during a fifteen minute break. The item was changed in the Arabic form to read: "Teachers drink tea, or soft drinks, in their special room."

Another item in the English version is worded: "The principal tries to get better salaries for teachers."

The Saudi Arabian educational system is centralized, and the decisions about salaries for teachers are totally controlled by the central authority. The principal has no role in the salary decision. However, he may help teachers get their yearly salary increments which may be delayed without his assistance. Also, teachers may get better salaries by moving from one salary grade level to a higher one after completing five years of service. For these reasons, the item was translated into Arabic as: "The principal helps teachers to get their salary increments." It would seem to have the same meaning as the one developed by Halpin and Croft who indicate this item refers to behavior of the principal "which is characterized by an inclination to treat the teachers 'humanly,' to try to do a little something extra for them in human terms."[1]

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[1]Halpin, op. cit., p. 151.

In addition to the translation, an explanatory note was provided for each item. The explanations were consistent with the respective subtests of the OCDQ.

A panel of experts was used to test the applicability of the translated form of the OCDQ. As a result, several changes were made before it was used. The instrument was pretested with 25 principals and teachers and they indicated that the items were clearly stated.

The panel of experts as well as the teachers and the principals indicated that the scale might be understood better if "occurs" were omitted. Therefore, the scale used was as follows: (1) Rarely; (2) Sometimes; (3) Often; and (4) Very frequently.

This change was made in order to achieve better understanding for the respondents in the Arabic version. However, respondents were instructed that each item described a situation which occurs in his school.[1]

Every subject's response in each group was punched on an IBM card. Columns 1 through 64 were for the items of the OCDQ, and 65 through 69 were for classification of each respondent. The classifications were as follows:

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[1]This statement was stated on the sheet of the Instructions for Answering the Questionnaire. Sargent used similar scale: (1) Rarely, (2) Never, (3) Sometimes, (4) Often, and (5) Very Frequently. Sargent, op. cit., p. 238.

Columns	Designation
65	Employee 1 = Teacher 2 = Principal
66	School Type 1 = Elementary boys 2 = Elementary girls 3 = Intermediate boys 4 = Intermediate girls
67	Teacher Type 1 = Saudi 2 = Non-Saudi
68	Socioeconomic Level of the School 1 = High 2 = Low
69	Type of School Building 1 = Rented 2 = Nonrented

Column 67 was left blank when punching the data concerning the principals, because all the principals of the schools selected were Saudis.

A separate program was developed to assign the sixty-four items of the OCDQ into its eight respective subtests:

Teachers' Behavior

1. Disengagement
2. Hindrance
3. Esprit
4. Intimacy

Principals' Behavior

5. Aloofness
6. Production Emphasis
7. Thrust
8. Consideration

The perceptions of teachers and principals for these eight subtests were obtained. In addition, the perceptions of teachers and principals for the openness score were obtained although openness was not one of the eight subtests. For the purpose of this study, openness was computed by the following formula:

Openness = (Esprit + Thrust) - Disengagement[1]

The data from the questionnaire were processed by the University of Oklahoma Computer Center. The Discriminant Analysis Program (Statistical Package for the Social Sciences--(SPSS) was selected for the computation of these data. The Discriminant Analysis procedures were selected in order to determine the single variable and the combination of variables that would best separate the groups and also to obtain an understanding of the nature of the underlying group differences, if they did occur. Even though individual comparisons could be made, the interpretability of such an analysis would have been difficult due to the number of variables and possible influence of one variable on another. The discriminant function, however, reduces a multivariate problem to a univariate one by using a composite set of variables that will maximally differentiate among the groups in question. The process was described as:

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[1]The reference for such information is already stated in the Review of Literature.

> The process begins by choosing the single variable which has the highest value on the selection criterion. The initial variable is then paired with each of the other available variables, one at a time, and the selection criterion is computed. The new variable which in conjunction with the initial variable produces the best criterion value is selected as the second variable to "enter the equation." These are then combined with each of the remaining variables, one at a time, to form triplets which are evaluated on the criterion. The triplet with the best criterion value determines the third variable to be selected. This procedure of locating the next variable that would yield the best criterion score, given the variables already selected, continues until all variables are selected or no additional variables provide a minimum level of improvement.[1]

Based on each single variable as a predictor, the SPSS Program will provide an F-value, classification matrix, and probability statement regarding each individual's likelihood of being included in each of the two groups.

At each step of the program, one variable is selected and entered into the set of discriminating variables. The classification power changes at each step as the program reevaluates and accounts for variance as each variable is entered. If the F-value becomes too low, the variable is deleted. This procedure treats all variables as continuous and shows the interaction of variables.

The study involved the following sixteen variables:

v_1, Disengagement

v_2, Hindrance

v_3, Esprit

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[1]Norman H. Nie and others, Statistical Package for the Social Sciences (SPSS), 2nd edition, 1975, p. 447.

v_4, Intimacy

v_5, Aloofness

v_6, Production Emphasis

v_7, Thrust

v_8, Consideration

v_9, Openness

v_{10}, Teacher Behavior

v_{11}, Principal Behavior

v_{12}, Employee Type/ (1) Teacher (2)Principal

v_{13}, School Type/ (1) Elem. Boys (2) Elem. Girls (3) Intermediate Boys (4) Intermediate Girls

v_{14}, Teacher Type/ (1) Saudi (2) Non-Saudi

v_{15}, Socioeconomic level of the school location/ (1) High (2) Low

v_{16}, Building Type/ (1) Rented (2) Nonrented

The perceptions of the eight subtests of the OCDQ (the elements of the climate) were tested for each two groups in each one of the four types of schools:

1) Teachers and Principals

2) Saudi teachers and non-Saudi teachers

3) School located in high and low socioeconomic areas

4) Rented school building and schools built by the government.

Statistical Procedure

The statistical method of multivariate analysis used in investigating the problem was a Discriminant Analysis for two or more groups (SPSS). Discriminant Analysis begins with

the desire to statistically distinguish between two or more groups of cases. To distinguish between the groups, the researcher selects a collection of discriminating variables that measures characteristics on which the groups are expected to differ.[1] The ultimate use of this statistical technique was to predict group membership.

Overall and Klett stated that by assigning appropriate weighting coefficients, several scores can be transformed to a single score which has maximum potential for distinguishing between members of two groups. By using this process, the multivariate problem is actually reduced to a single univariate problem, and assignment of individuals between the groups depends upon the value of a single vector variable.[2]

In addition to considering each dependent variable as a linear function, the program manipulated a mathematical equation and arrived at an over mean for all of them. A geometric interpretation of two groups (such as the perception of teachers and the principals) may be thought of as forming two ellipses, with the mean of the dependent variable representing a centroid for each group. In a multivariate sense the upper and lower portions of the ellipses cross can be

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[1]Norman H. Nie and others, Statistical Package for the Social Sciences (SPSS), 2nd edition, 1975, pp. 435-448.

[2]John E. Overall and C. James Kloff, Applied Multivariate Analysis (New York: McGraw-Hill Company, 1972), p. 243.

thought of as the function between the two groups.[1]

The analysis aspect of this technique provides several tools for the interpretation of data. Among these are statistical tests for measuring the success with which the discriminating variables actually discriminate when combined into the discriminant functions. When there are more than two groups, it may be possible to obtain satisfactory discrimination with fewer than the maximum number of functions. (This is similar to determining the number of factors in factor analysis.) The result is often of major theoretical significance, and statistical tests are included for this purpose. . . . More importantly, the weighting coefficients can be interpreted much as in multiple regression or factor analysis. In this respect they serve to identify the variables which contribute most to differentiation along the respective dimensions (function).[2]

Misclassification of the teachers or principals or any group in the study results from the overlap of the ellipses. The program attempts to move the two means as far as possible so that the overlap is minimal. However, when overlap does occur, the program reduces it by forming a line through the points at which the ellipse cross.

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[1]William W. Cooley and Paul R. Lohnes, Multivariate Data Analysis (New York: John Wiley and Son, Inc., 1971), p. 245.

[2]Norman A. Nie and others, Statistical Package, pp. 435-436.

As a check of the adequacy of our discriminant functions, we can classify the original set of cases to see how many are correctly classified by the variables being used. The procedure for classification involves the use of a separate linear combination of the discriminating variables for each group. These produce a probability of membership in the respective groups and the case is assigned to each group with the highest probability.[1]

Teachers or principals of any specific group in the study were assigned to a group mean (an overall mean) to which they were closest. For instance, a principal may be closest to the mean of group (grand mean) one, but is in fact a member of group two. This function takes place within the area of overlap and the computer program identifies him as being misclassified.

Basically, this statistical technique examines the centroids of the two groups. This area represents the misclassified persons, and the study predicted that a given percentage of them would be properly classified. The computer program provided the test statistic and the degrees of freedom associated with it. The multivariate significant value is compared with the value recorded in a regular F table.

By using the Discriminant Analysis Statistic, the probabilities for correct classification of teachers and

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[1] Ibid., p. 436.

principals was determined by the computer. The computer program further analyzed individual teacher and principal data, assigned the teacher and principal to the proper group, and gave the number of teachers or principals properly classified and misclassified for each of the two groups. Group means, grand means, standard deviation, degrees of freedom, and F values were included in the computer output.

The computer program manipulated an equation (for each group) for the purpose of predicting group membership. This equation included constants, coefficients, and variables:

$$C_i = C_{i1} + C_{i2} V_2 + \text{-----} + C_{ip} V_p + C_i O$$[1]

where

C_i = Classification score for group;

C_{i2} = Classification coefficients for each variable

V's = The raw scores on the discriminating variables,

C_{io} + Constant

Under the assumption of a multivariate normal distribution the classification scores can be converted into probabilities of group membership. The rule of assigning a case to the group with the highest score is then equivalent to assigning the case to the group for which it has the greatest probability of membership.[2]

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[1]Norman H. Nie and others, Statistical Package, p. 445.

[2]Ibid., p. 445.

The constants and coefficients were provided by the computer program, and the variable(s) which discriminate between two groups was also included in the computer program.

Cooley and Lohnes offer a geometric interpretation of discriminant analysis for predicting group membership (see Figure 3) that illustrates the process for classifying individuals in one of the two groups.[1]

Geometric interpretation might be drawn for each of the following two groups:

1) Teachers and Principals

2) Saudi teachers and non-Saudi teachers

3) High and low socioeconomic schools

4) Rented schools and nonrented schools.

Group centroids represent the estimated group mean which may be represented by the formula:

$$C_i = C_{i1} V_1 + C_{i2} V_2 + \text{----} + C_{ip} V_p + C_{io}$$

The mean to which an individual is closest determines group membership. The overlap of the upper and lower portions of the ellipse, through which a vector is drawn, represent the mean of the two groups. The misclassification of the individuals results from the overlap of the ellipses.

The use of discriminant analysis as a classification technique comes after the initial computation. Once a set

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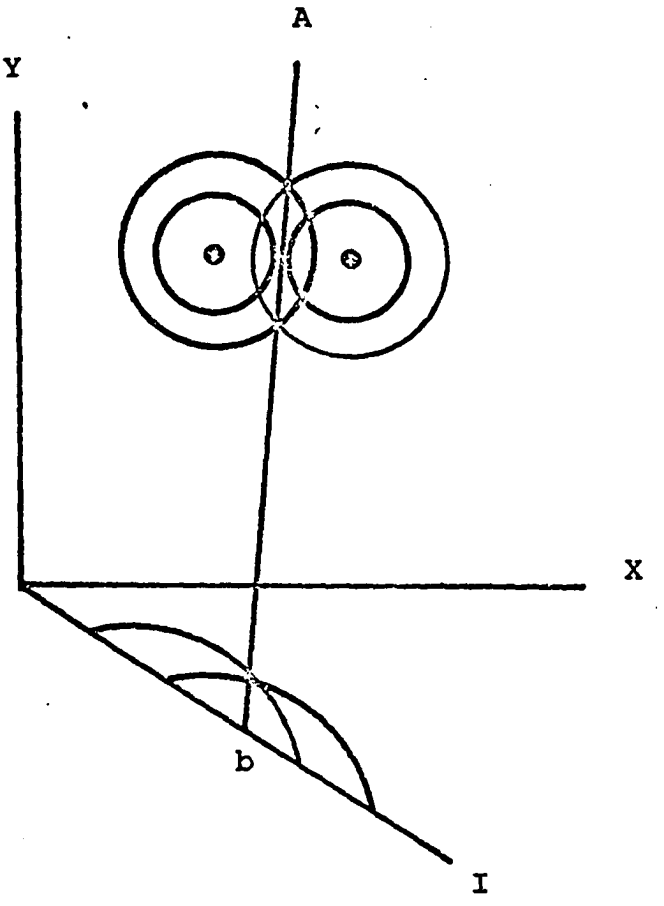
[1]William W. Cooley and Paul R. Lohnes, Multivariate Data Analysis (New York: John Wiley and Sons, Inc., 1971), p. 245.

Figure 3 -- Geometric Interpretation of Group Means and the Grand Mean[1]



[1]William W. Cooley and Paul R. Lohnes, Multivariate Data Analysis, (New York: John Wiley and Sons, Inc., 1971), p. 245.

of variables is found which provides satisfactory discrimination for cases with known group membership, a set of classification functions can be derived which will permit the classification of new cases with unknown memberships.[1]

Thus, if there are certain characteristics that do well in predicting teachers from principals, these characteristics can be used to predict the likely membership to each group if they had responded to the same set of characteristics (variable).

Summary

Fifty-five elementary and intermediate schools were selected from the schools in the city of Riyadh. These schools were selected to satisfy the criteria for high and low socioeconomic areas outlined in Chapter III. The population of these schools was 986 teachers and principals. A random sample of 476 teachers and principals was selected for the purpose of this investigation.

A translated version of the Organizational Climate Description Questionnaire (OCDQ) was administered to the sample. The investigator visited all the boys' schools and the questionnaires for girls' schools were sent through the Girls Educational District and they were collected by the investigator from the school district.

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[1]Norman H. Nie and others, Statistical Package, p. 436.

The instrument used in this investigation was a widely used instrument in the United States and in several developing countries. The validity and reliability of the OCDQ have been demonstrated in the research and literature.

The statistical method of multivariate analysis used in investigation of the problem was the Discriminant Analysis for two or more groups (SPSS). This statistical technique provides the analysis not only for single variables, but also for combined variables which may contribute to significant difference between two or more groups. The computer program manipulates a classification equation for each group.

CHAPTER IV

PRESENTATION AND ANALYSES OF DATA

The purpose of this chapter is to present the data that were gathered as part of the investigation of the problem and to present the analyses of those data. The problem was to examine the perceptions of teachers and principals of the organizational climate in selected schools in Riyadh, Saudi Arabia.

Included in this study were four hundred seventy-six teachers and principals from fifty-five elementary and intermediate schools in Riyadh, Saudi Arabia. Thirty-four elementary and intermediate boys' schools and twenty-one elementary and intermediate girls' schools were included.

The statistical method of multivariate analysis used in investigating the problem was a Discriminant Analysis for two or more groups (SPSS). This method permitted analysis not only in relation to a single variable, but also on combined variables which might discriminate between two or more groups.

Preliminary information about the eight subtest dimensions of organizational climate and Openness is contained in Table 3. That table includes the mean, variance, range, standard error, and standard deviation for the eight subtest

TABLE 3

MEAN, VARIANCE, RANGE, STANDARD ERROR, STANDARD DEVIATION AND VALID OBSERVATIONS FOR THE EIGHT SUBTEST DIMENSIONS AND OPENNESS FOR THE ENTIRE SAMPLE

VARIABLE V1	DISENGAGEMENT				
Mean	18.293	Standard Error	0.204	Standard Deviation	4.457
Variance	19.863	Kurtosis	1.117	Skewness	0.847
Range	29.000	Minimum	10.000	Maximum	39.000
Valid Observations - 476				Missing Observations - 0	
VARIABLE V2	HINDRANCE				
Mean	12.184	Standard Error	0.128	Standard Deviation	2.795
Variance	7.815	Kurtosis	0.337	Skewness	0.482
Range	17.000	Minimum	6.000	Maximum	23.000
Valid Observations - 476				Missing Observations - 0	
VARIABLE V3	ESPRIT				
Mean	26.040	Standard Error	0.217	Standard Deviation	4.734
Variance	22.408	Kurtosis	-0.191	Skewness	-0.101
Range	29.000	Minimum	11.000	Maximum	40.000
Valid Observations - 476				Missing Observations - 0	
VARIABLE V4	INTIMACY				
Mean	16.132	Standard Error	0.148	Standard Deviation	3.233
Variance	10.455	Kurtosis	0.022	Skewness	0.158
Range	21.000	Minimum	7.000	Maximum	28.000
Valid Observations - 476				Missing Observations - 0	

TABLE 3--Continued

VARIABLE V5	ALOOFNESS				
Mean	25.530	Standard Error	0.191	Standard Deviation	4.161
Variance	17.313	Kurtosis	0.012	Skewness	-0.283
Range	23.000	Minimum	13.000	Maximum	36.000
Valid Observations - 476				Missing Observations - 0	
VARIABLE V6	PRODUCTION EMPHASIS				
Mean	18.474	Standard Error	0.154	Standard Deviation	3.368
Variance	11.342	Kurtosis	-0.108	Skewness	-0.352
Range	19.000	Minimum	7.000	Maximum	26.000
Valid Observations - 476				Missing Observations - 0	
VARIABLE V7	THRUST				
Mean	28.201	Standard Error	0.251	Standard Deviation	5.492
Variance	30.161	Kurtosis	0.337	Skewness	-0.763
Range	27.000	Minimum	9.000	Maximum	36.000
Valid Observations - 476				Missing Observations - 0	
VARIABLE V8	CONSIDERATION				
Mean	16.604	Standard Error	0.158	Standard Deviation	3.448
Variance	11.891	Kurtosis	-0.099	Skewness	-0.244
Range	18.000	Minimum	6.000	Maximum	24.000
Valid Observations - 476				Missing Observations - 0	
VARIABLE V9	OPENNESS				
Mean	35.948	Standard Error	0.509	Standard Deviation	11.123
Variance	123.714	Kurtosis	-0.175	Skewness	-0.294
Range	64.000	Minimum	-2.000	Maximum	62.000
Valid Observations - 476				Missing Observations - 0	

dimensions of organizational climate and Openness in the sample used in the study.

Teacher and Principal Perceptions of the Eight Subtest Dimensions of the Organizational Climate

The first null hypothesis indicated that there was no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between teachers and principals. This hypothesis was tested for the entire sample regardless of whether the teachers and principals were in elementary or intermediate schools. The statistical test used was Discriminant Analysis.

Table 4 shows the within group correlation matrix between the eight subtest scores and Openness for the teachers and the principals in the sample. It also indicates a relatively high correlation with certain subtests. Openness was expected to correlate highly with Esprit and Thrust and correlate negatively with Disengagement because Openness is defined by the formula:

Openness = Esprit + Thrust - Disengagement

The results from analysis of the data related to the first hypothesis were reported in Table 5. The information in this table shows that there was a statistically significant difference in the perceptions of teachers and principals on the OCDQ subtests of Aloofness and Thrust. The teachers and the principals did not differ significantly in their perceptions of the remaining six subtests.

TABLE 4

WITHIN GROUP CORRELATION MATRIX BETWEEN EIGHT SUBTEST SCORES AND OPENNESS FOR TEACHERS AND PRINCIPALS (N = 476)

OCDQ Subtest and Openness	1	2	3	4	5	6	7	8	9
1. Disengagement	1.0000								
2. Hindrance	0.2198	1.0000							
3. Esprit	-0.3113	0.0260	1.0000						
4. Intimacy	-0.0329	0.1334	0.4183	1.0000					
5. Aloofness	0.0167	0.0539	0.3353	0.2116	1.0000				
6. Production Emphasis	0.0343	0.0018	0.2863	0.1734	0.5221	1.0000			
7. Thrust	-0.2204	0.0385	0.5210	0.2828	0.5125	0.4078	1.0000		
8. Consideration	-0.0871	-0.0110	0.4295	0.1689	0.4541	0.4444	0.6558	1.0000	
9. Openness*	-0.6427	-0.0580	0.8088	0.3313	0.3894	0.3097	0.8044	0.5420	1.0000

*Openness is not a subtest of the eight subtest dimensions of the Organizational Climate and is defined by the formula:

Openness = Esprit + Thrust - Disengagement.

TABLE 5

MEANS, STANDARD DEVIATIONS AND F-VALUE FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR ALL TEACHERS AND PRINCIPALS

OCDQ Subtest & Openness	Teachers (N = 421)		Principals (N = 55)		F-Value	df (1/474) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	18.34	4.46	17.78	4.40	0.78	Not rej.**
2. Hindrance	12.17	2.86	12.38	2.24	0.28	Not rej.
3. Esprit	25.98	4.75	26.58	4.61	0.79	Not rej.
4. Intimacy	16.10	3.29	16.43	2.79	0.53	Not rej.
5. Aloofness	25.37	4.22	26.64	3.42	4.55	Rejected
6. Production Emphasis	18.36	3.42	19.27	2.68	3.64	Not rej.
7. Thrust	28.01	5.66	29.64	3.84	4.26	Rejected
8. Consideration	16.55	3.56	16.89	2.41	0.47	Not rej.
9. Openness*	35.65	11.27	38.44	9.66	3.07	Not rej.

*Openness is not a subtest of the eight OCDQ subtests. It is defined by the formula:

Openness = Esprit + Thrust - Disengagement.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

Although teachers and principals did not show significant difference for Openness, the principals had higher mean scores than the teachers. This indicates that principals perceived the climate of their schools to be relatively more open in direction than did the teachers. The principals also had higher mean scores than the teachers on the subtest Production Emphasis, even though the F-value was not enough to claim statistically significant difference.

The Discriminant Analysis program used made possible analyses of the data not only on single subtest dimensions, but also on combined subtests which might contribute to significant differences between two or more groups. The computer program selected the Openness subtest with the higher F-value to "enter the equation" and combine with the remaining subtests to discriminate between the groups in question. In this case, the program indicated that the combination of subtest 5, subtest 7, and subtest 8 did not yield significant difference ($p = .069$).

The computer program also provided the classification coefficients, constants, and the subtests which discriminate between teachers and principals. This information is contained in Table 6.

These classification coefficients and constants were entered into a classification formula. Thus, teachers were classified as follows:

$$C_1 = 1.09\ (S_5) + 0.32\ (S_7) + 0.47\ (S_8) - 22.14$$

where C_1 is the classification score for group 1 and S is the OCDQ subtest. The principals were classified in similar fashion as follows:

$$C_2 = 1.15\ (S_5) + 0.32\ (S_7) + 0.41\ (S_8) - 24.26$$

TABLE 6

OCDQ SUBTESTS, CLASSIFICATION COEFFICIENTS, AND CONSTANTS FOR TEACHERS AND PRINCIPALS

OCDQ Subtests and Constants	Group 1 Teachers	Group 2 Principals
5. Aloofness	1.09	1.15
7. Thrust	0.32	0.38
8. Consideration	0.47	0.41
Constant	-22.14	-24.26

The Discriminant Analysis program provided the predicted group membership for the teachers and the principals and the percent of "grouped" cases correctly classified. This information was summarized in Table 7.

Table 7 shows that 54 percent of teachers and 56.4 percent of principals were correctly classified. Therefore, the subtests Aloofness and Thrust were rejected and the remaining seven dimensions were not rejected.

TABLE 7

PREDICTED GROUP MEMBERSHIP FOR TEACHERS AND PRINCIPALS AND PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership	
		Group 1	Group 2
Group 1 Teachers	421	228 54.2%	193 45.8%
Group 2 Principals	55	24 43.6%	31 56.4%
Percent of "grouped" cases correctly classified:			54.41%

Teachers' Perception of the Eight Subtest Dimensions of the Organizational Climate in Four Different Types of Schools

The second null hypothesis stated that there was no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between teachers in different types of schools. The teachers were divided into four groups--teachers in elementary boys' schools, teachers in elementary girls' schools, teachers in intermediate boys' schools, and teachers in intermediate girls' schools.

The results of the Discriminant Analysis for the groups of teachers are contained in Table 8. There was significant difference between the four groups of teachers for subtest Disengagement, subtest Hindrance, subtest Aloofness, and subtest Production Emphasis. Differences in teachers' perceptions on the other four subtests were not statistically significant.

TABLE 8

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR TEACHERS IN ELEMENTARY AND INTERMEDIATE BOYS' AND GIRLS' SCHOOLS

OCDQ Subtests and Openness	Teachers Elem. Boys		Teachers Elem. Girls		Teachers Inter. Boys		Teachers Inter. Girls		F-Value	df (3/417) Decision (No difference)
	Mean Score	S.D.	Mean Score	S.D.	Mean Score	S.D.	Mean Score	S.D.		
1. Disengagement	17.48	4.26	19.22	4.94	17.93	3.80	19.24	4.44	4.37	Rejected**
2. Hindrance	12.44	2.67	11.34	2.87	12.96	2.78	11.97	2.94	7.76	Rejected
3. Esprit	25.77	4.63	26.23	4.99	25.88	4.79	26.03	4.12	0.23	Not rej.
4. Intimacy	15.99	3.33	16.11	3.50	15.97	3.00	16.91	3.19	0.78	Not rej.
5. Aloofness	24.60	4.46	26.04	4.16	24.94	4.08	26.91	3.24	4.61	Rejected
6. Production Emphasis	17.64	3.33	19.68	3.05	17.37	3.63	18.79	2.81	13.48	Rejected
7. Thrust	28.02	5.74	27.20	5.88	28.68	5.19	29.21	5.38	2.05	Not rej.
8. Consideration	16.17	3.25	17.13	3.79	16.34	3.51	16.24	3.64	2.01	Not rej.
9. Openness*	36.32	11.14	34.20	12.36	36.63	10.08	36.00	10.54	1.25	Not rej.

*Openness is not a subtest of the eight subtest dimensions of the Organizational Climate and is defined as: Openness = Esprit + Thrust - Disengagement.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

Teachers in girls' schools scored higher than teachers in boys' schools on subtests Disengagement, Aloofness, and Production Emphasis.

The teachers in boys' schools scored higher on the subtest Hindrance. Although it was not statistically significant, they also scored higher than teachers in girls' schools on Openness.

The Discriminant Analysis program selected one subtest to enter with the remaining subtests, one at a time, in stepwise manner, to determine the contribution of each to significant difference, if any, between the groups. Hindrance was selected to enter with the other subtests and Openness. The F-value of subtest Thrust increased and was selected in step 2 to enter with the other subtest. Thrust, which was conjoined with Hindrance, was combined with each of the remaining subtests. The correlation between the entering subtest and the first entered subtest was removed, and the contribution of each remaining subtest was calculated. Table 9 contains information to show the subtests which were entered in the stepwise analysis.

The combination of subtest 2 and subtest 7 contributed to significant difference. The combination of subtest 2, subtest 7 and subtest 6 contributed to significant difference. The combination of subtest 1 to the three subtests contributed to significant difference. The combination of the three remaining subtests with previous subtests, one at a time,

contributed to significant difference between the four groups of teachers in question.

TABLE 9

SUBTESTS ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE OF SUBTESTS FOR TEACHERS IN FOUR DIFFERENT TYPES OF SCHOOLS

Step No.	Subtests Entered	No. Included	F-Value to Enter or Remove	Significance Level	Degrees of Freedom	Decision (No difference)
1	2. Hindrance	1	7.76	0.000	3/417	Rejected*
2	7. Thrust	2	1.87	0.000	6/832	Rejected
3	6. Production Emph.	3	22.33	0.000	9/1010	Rejected
4	1. Disengagement	4	4.76	0.000	12/1095	Rejected
5	5. Aloofness	5	2.48	0.000	15/1140	Rejected
6	8. Consideration	6	4.29	0.000	18/1165	Rejected
7	3. Esprit	7	1.23	0.000	21/1180	Rejected

*$p < .05$.

The computer program also provided the classification coefficients, constants, and the subtests for each of the four groups. The information in Table 10 was entered into formulas for purposes of classification as follows:

Group 1: $C_1 = 1.19\ (S_1) + 0.93\ (S_2) + 1.04\ (S_3) + 0.56\ (S_5) + 0.04\ (S_8) - 44.76$

Group 2: $C_2 = 1.30\ (S_1) + 0.72\ (S_2) + 1.10\ (S_3) + 0.64\ (S_5) + 0.78\ (S_6) + 0.03\ (S_7) + 0.16\ (S_8) - 48.79$

TABLE 10

SUBTESTS, CLASSIFICATION COEFFICIENTS, AND CONSTANTS FOR TEACHERS IN EACH GROUP

Subtests and Constants	Teacher Elem. Boys Group 1	Teacher Elem. Girls Group 2	Teacher Inter. Boys Group 3	Teacher Inter. Girls Group 4
1. Disengagement	1.19	1.30	1.21	1.31
2. Hindrance	0.93	0.72	0.99	0.80
3. Esprit	1.04	1.16	1.03	1.05
5. Aloofness	0.56	0.64	0.58	0.71
6. Production Emph.	0.58	0.78	0.52	0.63
7. Thrust	0.20	0.03	0.23	0.23
8. Consideration	0.04	0.16	0.04	-0.07
Constant	-44.76	-48.79	-46.11	-49.25

Group 3: $C_3 = 1.21\ (S_1) + 0.99\ (S_2) + 1.03\ (S_3) + 0.58\ (S_5) + 0.52\ (S_6) + 0.02\ (S_7) + 0.04\ (S_8) - 46.11$

Group 4: $C_4 = 1.31\ (S_1) + 0.80\ (S_2) + 1.05\ (S_3) + 0.71\ (S_5) + 0.63\ (S_6) + 0.23\ (S_7) + 0.07 - 49.25$

(C is the classification score for each group and the S's are the raw scores on the discriminating subtests).

The Discriminant Analysis program provided the predicted group membership for the teachers in the four groups. Table 11 contains information showing that only 30.7 percent of the teachers in elementary boys' schools could be classified correctly, 61.4 percent of the teachers in elementary girls' schools could be classified correctly, 37.4 percent of the teachers in intermediate boys' schools could be classified correctly, and 42.4 percent of the teachers

in intermediate girls' schools could be classified correctly.

TABLE 11

PREDICTED GROUP MEMBERSHIP FOR TEACHERS IN FOUR DIFFERENT GROUPS AND PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership			
		Group 1	Group 2	Group 3	Group 4
Group 1 Teacher Elem. Boys	127	34 30.7%	23 18.1%	39 30.7%	26 20.5%
Group 2 Teacher Elem. Girls	145	17 11.7%	89 61.4%	16 11.0%	23 15.9%
Group 3 Teacher Inter. Boys	116	24 20.7%	25 21.6%	44 37.9%	23 19.8%
Group 4 Teacher Inter. Girls	33	6 18.2%	6 18.2%	7 21.2%	14 42.4%
Percent of "grouped" cases correctly classified: 44.18%					

Tests performed in relation to Ho_2 resulted in rejection of subtests Disengagement, Hindrance, Aloofness, and Production Emphasis. The tests on the other four subtests were not statistically significant so that rejection was not possible. Further testing indicated that one or more subtest dimensions contributed to significant difference.

School Staff Perceptions of the Eight Subtest Dimensions of the Organizational Climate in Schools Located in High and Low Socioeconomic Areas

The third hypothesis stated that there is no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between

school staffs in schools located in high socioeconomic and low socioeconomic areas.

The first phase of the analysis was for school staffs in general in the high and low socioeconomic areas. Table 12 contains information regarding the correlation matrix between the eight subtest scores and Openness.

The results of testing Ho_3 are included in Table 13. The analysis indicated that there were statistically signigicant differences on Disengagement, Aloofness, Production Emphasis, and Consideration. The low socioeconomic groups had higher mean scores on Disengagement and the high socioeconomic group had higher mean scores on Aloofness, Production Emphasis and Consideration. The data contained in Table 13 also indicate a difference between the two groups in Openness. However, the F-value was not high enough for the difference to be statistically significant. The high socioeconomic group tended to perceive the climate of their schools as relatively more open than the schools located in low socioeconomic areas.

In order to investigate differences based on two or more subtests, several subtests were selected to enter with the remaining subtests. Subtest 6, Production Emphasis, having the highest F-value, was selected to enter with each of the remaining subtests and Openness. When subtest 6 was entered, the F-value of subtest 1 increased and the combined subtests were statistically significant. Subtest 1 was selected to enter and in conjunction with subtest 6 was

TABLE 12

WITHIN GROUP CORRELATION MATRIX BETWEEN EIGHT SUBTEST SCORES AND OPENNESS FOR SCHOOL STAFFS IN SCHOOLS LOCATED IN HIGH AND LOW SOCIOECONOMIC AREAS

OCDQ Subtests and Openness	1	2	3	4	5	6	7	8	9
1. Disengagement	1.0000								
2. Hindrance	0.2124	1.0000							
3. Esprit	-0.3116	0.0303	1.0000						
4. Intimacy	-0.0345	0.1361	0.4195	1.0000					
5. Aloofness	0.0293	0.0527	0.3313	0.2104	1.0000				
6. Production Emphasis	0.0539	0.0011	0.2817	0.1722	0.5226	1.0000			
7. Thrust	-0.2197	0.0414	0.5209	0.2841	0.5146	0.4103	1.0000		
8. Consideration	-0.0705	-0.0133	0.4243	0.1664	0.4517	0.4392	0.6540	1.0000	
9. Openness*	-0.6411	-0.0514	0.8092	0.3335	0.3845	0.3018	0.8052	0.5330	1.0000

*Openness is not a subtest of the eight subtest dimensions of the Organizational Climate and is defined by the formula:

Openness = Esprit + Thrust - Disengagement.

TABLE 13

MEANS, STANDARD DEVIATIONS AND F-VALUE FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR THE SCHOOL STAFF IN HIGH AND LOW SOCIOECONOMIC AREAS

OCDQ Subtests	Staff in High Socioeconomic Schools		Staff in Low Socioeconomic Schools		F-Value	df (1/475) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	17.80	4.31	18.85	4.56	6.76	Rejected**
2. Hindrance	12.14	2.82	12.23	2.78	0.13	Not rej.
3. Esprit	26.22	4.67	25.83	4.80	0.83	Not rej.
4. Intimacy	16.18	3.22	10.08	3.25	0.13	Not rej.
5. Aloofness	25.91	3.80	25.10	4.31	4.45	Rejected
6. Production Emphasis	18.93	3.24	17.95	3.44	10.30	Rejected
7. Thrust	28.41	5.42	27.97	5.58	0.75	Not rej.
8. Consideration	16.97	3.39	16.19	3.47	6.14	Rejected
9. Openness*	36.83	10.78	34.94	11.44	3.44	Not rej.

*Openness is not one of the dimensions of OCDQ.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

combined with each of the remaining subtests and Openness. This combination resulted in significant differences for subtest 6, subtest 1, and Openness. Subtest 8 was then selected to enter and when combined with subtest 1, subtest 6, and Openness the combination contributed to significant difference. Data regarding the combinations is contained in Table 14.

TABLE 14

SUBTESTS AND OPENNESS ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR SCHOOL STAFF IN SCHOOLS LOCATED IN HIGH SOCIO-ECONOMIC AND LOW SOCIOECONOMIC AREAS

Step No.	Subtest & Openness* Entered	Number Included	F-Value to Enter or Remove	Significance Level	Degree of Freedom	Decision (No difference)
1	6. Production Emph.	1	10.30	0.002	1/475	Rejected
2	1. Disengagement	2	7.53	0.000	2/474	Rejected
3	9. Openness	3	1.79	0.000	3/473	Rejected
4	8. Consideration	4	3.73	0.000	4/472	Rejected

*Openness is not a subtest of the eight subtest dimensions of the organizational climate and defined by the formula: Openness = Esprit + Thrust - Disengagement.

The Discriminant Analysis program also provided classification coefficients and constants which could be entered into a formula to classify each group. These data are contained in Table 15.

TABLE 15

SUBTEST, OPENNESS, CLASSIFICATION COEFFICIENTS, AND CONSTANTS FOR THE TWO GROUPS OF HIGH AND LOW SOCIOECONOMIC AREAS

Subtest and Openness* and Constant	Group 1 High Socioeconomic	Group 2 Low Socioeconomic
1. Disengagement	2.23	2.12
6. Production Emph.	0.69	0.79
8. Consideration	-0.11	-0.04
9. Openness	0.81	0.78
Constant	-40.43	-40.30

*Openness is not a subtest of the eight subtest dimensions of the organizational climate.

The high socioeconomic group was classified by using the following formula:

$$C_1 = 2.23\ (S_1) + 0.69\ (S_6) + 0.11\ (S_8) + 0.81\ (Op_9) - 40.43$$

where C_1 was the classification group 1, S's were the subtests, and Op was Openness.

The low socioeconomic group was classified by using the following formula:

$$C_2 = 2.12\ (S_1) + 0.79\ (S_7) - 0.04\ (S_8) + 0.78\ (Op_9) - 40.30$$

The Discriminant Analysis program not only tested the statistical significance, but also the practical significance. "Under the assumption of a multivariate normal distribution, the classification scores can be converted into probabilities of group membership."[1]

[1]Norman H. Nie and others, Statistical Package for the Social Science (SPSS) 2nd ed., 1975, p. 445.

The information in Table 16 indicates that 53.8 percent of the staff in high socioeconomic area schools was correctly classified while 46.2 percent was misclassified. In group 2 63.8 percent was correctly classified while only 36.2 percent was misclassified.

TABLE 16

PREDICTED GROUP MEMBERSHIP FOR THE STAFF OF HIGH AND LOW SOCIOECONOMIC GROUPS AND PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership	
		Group 1	Group 2
Group 1 High	223	120 53.8%	103 46.2%
Group 2 Low	254	92 36.2%	162 63.8%
Percent of "grouped" cases correctly classified: 59.12%			

Tests performed in relation to Ho_3 resulted in rejection of the subtests Disengagement, Aloofness, Production Emphasis, and Consideration. Tests on the remaining subtest dimensions were not statistically significant so that rejection was not possible. The hypothesis was also rejected for combination of Production Emphasis and Disengagement, the combination of these two subtests and Openness, and the combination of these three and Consideration.

Ho_3 was also analyzed for each of the groups: teachers in elementary boys' schools, teachers in elementary girls' schools, teachers in intermediate boys' schools, and

teachers in intermediate girls' schools. Therefore, the first minor null hypothesis (Ho_{3a}) stated that there is no statistically significant difference in the perception of the eight subtest dimensions of the organizational climate between teachers in elementary boys' schools located in high socioeconomic and low socioeconomic areas.

The results of the Discriminant Analysis for Ho_{3a} is reported in Table 17.

As indicated by the data contained in Table 17, there was not statistically significant difference on any of the eight subtest dimensions and Openness. However, there were differences between the two groups. The low socioeconomic group had relatively higher mean scores on the subtests of Disengagement, Hindrance, Aloofness, and Production Emphasis. Staffs in the elementary boys' schools in high socioeconomic areas viewed the climate of their schools to be relatively more open in direction than the schools located in low socio-economic areas.

The subtest with the relatively higher F-value, which was Production Emphasis, was selected to enter with each of the other remaining variables. The combination of the subtest Production Emphasis with subtest Thrust resulted in a high F-value (5.49) which contributed to a statistically significant difference. Also, the combination of subtest 6 with Openness contributed to a statistically significant difference (F-value 5.45). A combination of subtest 6 with

TABLE 17

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE, AND OPENNESS FOR TEACHERS IN ELEMENTARY BOYS' SCHOOLS LOCATED IN HIGH AND LOW SOCIOECONOMIC AREAS

OCDQ Subtests & Openness	Teachers in High Socioeconomic Schools		Teachers in Low Socioeconomic Schools		F-Value	df (1/133) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	17.30	4.09	17.99	4.56	0.85	Not rej.**
2. Hindrance	12.00	2.43	12.72	2.78	2.53	Not rej.
3. Esprit	26.42	4.35	25.07	5.05	2.74	Not rej.
4. Intimacy	15.98	3.31	15.80	3.39	0.10	Not rej.
5. Aloofness	24.22	4.38	25.25	4.44	1.85	Not rej.
6. Production Emphasis	17.20	3.49	18.23	3.01	3.34	Not rej.
7. Thrust	28.61	5.73	27.58	5.63	1.11	Not rej.
8. Consideration	16.19	3.61	16.20	2.74	$0.04y_{10}^{-2}$	Not rej.
9. Openness*	37.73	11.01	34.66	11.05	2.61	Not rej.

*Openness is not a subtest of the eight subtest dimensions of the organizational climate. Openness is defined by the formula: Openness = Esprit + Thrust - Disengagement.

**Not rejected refers to nonsignificant difference (>.05).

subtest 3 resulted in an F-value of 4.05 which contributed to a significant difference. The entry of subtest 6 with the remaining subtests and Openness contributed to significant difference for two subtest dimensions and Openness. These data are contained in Table 18.

TABLE 18

F-VALUES WHEN SUBTEST 6 COMBINES WITH EACH OF THE REMAINING SUBTESTS AND OPENNESS

OCDQ Subtests and Openness	F to Enter	Decision df (2/132) (No difference)
1. Disengagement	0.69	Not rejected
2. Hindrance	2.11	Not rejected
3. Esprit	4.05	Rejected**
4. Intimacy	0.53	Not rejected
5. Aloofness	0.15	Not rejected
7. Thrust	5.49	Rejected
8. Consideration	1.03	Not rejected
9. Openness*	5.45	Rejected

*Openness is not a subtest of the eight subtest dimensions of OCDQ.

**Rejected refers to significant difference ($p < .05$) and not rejected refers to nonsignificant difference ($p > .05$).

The Discriminant Analysis program selected subtest 7, which, in conjunction with subtest 6, combined with each of the remaining variables. This increased the F-value of subtest 5 to 3.29. Subtest 5 was then selected to be in conjunction with subtests 6 and 7 and combine with each of the remaining subtests. The combination of subtest 6,

subtest 7 and subtest 5 resulted in a statistically significant difference. When subtest 5 was entered, the F-value of subtest 2 (Hindrance) increased to 3.00. The combination of subtests 2, 5, 6, and subtest 7 were statistically significant. Subtest 3 (Esprit) was selected to enter, which in conjunction with previous subtests combined with each of the remaining subtests. The combination of the subtest dimensions 2, 3, 5, 6, and 7 discriminated between the two groups and was statistically significant. Table 19 contains the number of subtests included and the F-values to enter or remove.

In addition to these significant differences as shown by the data in Table 19, the combination of Openness with Production Emphasis was also statistically significant. (See Table 18.)

TABLE 19

SUBTESTS ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR TESTING THE SIGNIFICANT DIFFERENCE BETWEEN TEACHERS IN ELEMENTARY BOYS' SCHOOLS LOCATED IN HIGH AND LOW SOCIOECONOMIC AREAS

Step No.	Subtests Entered	Number Included	F-value to enter or remove	Significance	Degree of Freedom	Decision (No difference)
1	6. Production Emphasis	1	3.34	0.066	1/133	Not rej.
2	7. Thrust	2	5.49	0.013	2/132	Rejected
3	5. Aloofness	3	3.29	0.008	3/131	Rejected
4	2. Hindrance	4	3.00	0.005	4/130	Rejected
5	3. Esprit	5	1.33	0.007	5/129	Rejected

Testing of this minor null hypothesis did not result in any of the eight single subtest dimensions being rejected. Therefore, based on single subtests, the hypothesis was sustained for the teachers in elementary boys' schools located in high and low socioeconomic areas. However, there was significant difference when the combination of the subtests was considered. There was significant difference in the combination of Production Emphasis and Thrust, the combination of these two subtests and Aloofness, the combination of these three subtests and Hindrance, and the combination of these four subtests and Esprit.

The second minor null hypothesis (Ho_{3b}) stated that there is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between school teachers in elementary girls' schools located in high socioeconomic and low socioeconomic areas.

Table 20 contains data indicating that there is statistically significant difference for Disengagement, Hindrance, Production Emphasis, Thrust, Consideration, and Openness. The two groups had similar perceptions for the three remaining subtest dimensions. The high socioeconomic group elementary girls' schools had higher mean scores on Thrust, Consideration and Openness than the low socioeconomic group. The teachers in high socioeconomic elementary girls' schools perceived their school climates to be more open than the schools located in low socioeconomic areas.

TABLE 20

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE, AND OPENNESS FOR TEACHERS IN ELEMENTARY GIRLS' SCHOOLS LOCATED IN HIGH AND LOW SOCIOECONOMIC AREAS

OCDQ Subtests & Openness	Teachers in High Socioeconomic Schools		Teachers in Low Socioeconomic Schools		F-Value	df (11/145) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	18.21	4.34	20.38	5.35	7.37	Rejected**
2. Hindrance	10.90	2.47	11.92	3.20	4.78	Rejected
3. Esprit	26.84	4.44	25.44	5.46	2.94	Not rej.
4. Intimacy	16.02	3.21	16.23	3.82	0.12	Not rej.
5. Aloofness	26.56	3.78	25.62	4.67	1.80	Not rej.
6. Production Emphasis	20.26	2.60	19.02	3.46	6.19	Rejected
7. Thrust	28.38	5.20	25.95	6.44	6.40	Rejected
8. Consideration	18.16	3.32	15.91	3.94	14.14	Rejected
9. Openness*	37.01	10.70	31.02	13.41	9.10	Rejected

*Openness is not a subtest of the eight subtest dimensions of the OCDQ.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

A Discriminant Analysis program makes it possible to select a certain subtest to enter with each of the other remaining variables with the result that the F-values are reevaluated and changed. Table 21 contains data indicating that combination of previous subtests and Openness was

statistically significant. The tests performed indicated that not only the single subtest and Openness discriminated between the two groups, but also the combination of the single subtests and Openness discriminated between them.

TABLE 21

SUBTESTS AND OPENNESS ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR TEACHERS IN ELEMENTARY GIRLS' SCHOOLS LOCATED IN HIGH AND LOW SOCIO-ECONOMIC AREAS

Step No.	Subtests Entered	Number Included	F-Value	Significance	Degree of Freedom	Decision (No difference)
1	8. Consideration	1	14.14	0.000	1/145	Rejected
2	2. Hindrance	2	4.40	0.000	2/144	Rejected
3	6. Production Emphasis	3	2.22	0.000	3/143	Rejected
4	1. Disengagement	4	1.79	0.000	4/142	Rejected
5	9. Openness	5	1.74	0.001	5/141	Rejected

Testing of this minor null hypothesis resulted in the subtests of Disengagement, Hindrance, Production Emphasis, Thrust, and Consideration being rejected. The other three subtests were not rejected. Also, there was rejection in the combination of Consideration and Hindrance, the combination of these two and Production Emphasis, the combination of these three and Disengagement, and the combination of all four and Openness.

The third minor hypothesis (Ho_{3c}) stated that there is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between teachers in intermediate boys' schools located in high socioeconomic and low socioeconomic areas.

The data in Table 22 indicate that only one single subtest, Disengagement, was statistically significant. Disengagement was selected to enter with each of the other variables. The combination of Disengagement and Production Emphasis was statistically significant. The combination of Disengagement, Esprit, and Production Emphasis contributed to statistically significant difference.

The information in Table 23 indicates that there was statistically significant difference on the subtest Disengagement and a significant difference for the subtest Production Emphasis when it was combined with Disengagement. There was also statistically significant difference for Esprit when it was combined with the other two subtests.

The teachers in intermediate boys' schools located in high socioeconomic areas had higher mean scores on Disengagement than the teachers in schools located in low socioeconomic areas. The high socioeconomic groups had relatively higher mean scores on Thrust and the same group had higher mean scores on Openness, even though the F-value was not high enough for statistically significant difference. This may indicate that the teachers in schools located in high

TABLE 22

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE, AND OPENNESS FOR TEACHERS IN INTERMEDIATE BOYS' SCHOOLS LOCATED IN HIGH AND LOW SOCIOECONOMIC AREAS

OCDQ Subtests & Openness	Teachers in High Socioeconomic Schools		Teachers in Low Socioeconomic Schools		F-Value	df (1/114) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	17.22	3.82	18.77	3.64	4.95	Rejected**
2. Hindrance	12.72	2.87	13.26	2.65	1.20	Not rej.
3. Esprit	25.84	5.15	25.92	4.36	$0.09X_{10}^{-1}$	Not rej.
4. Intimacy	16.03	3.19	15.89	2.79	0.07	Not rej.
5. Aloofness	25.40	4.01	24.40	4.13	1.75	Not rej.
6. Production Emphasis	17.86	3.79	16.79	3.37	2.51	Not rej.
7. Thrust	28.86	5.52	28.47	4.82	0.16	Not rej.
8. Consideration	16.51	3.67	16.15	3.34	0.30	Not rej.
9. Openness*	37.48	10.64	35.62	9.38	0.97	Not rej.

*Openness is not a subtest of the eight subtest dimensions of OCDQ.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

socioeconomic areas considered their schools to have relatively more open school climates than the schools located in low socioeconomic areas.

TABLE 23

SUBTESTS ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR TESTING THE SIGNIFICANT DIFFERENCE BETWEEN TEACHERS IN INTERMEDIATE BOYS' SCHOOLS LOCATED IN HIGH AND LOW SOCIOECONOMIC AREAS

Step No.	Subtests Entered	Number Included	F-value to enter or remove	Significance	Degree of Freedom	Decision (No difference)
1	1. Disengagement	1	4.95	0.0026	1/114	Rejected*
2	6. Production Emphasis	2	2.89	0.021	2/113	Rejected
3	3. Esprit	3	2.20	0.020	3/112	Rejected

*$p < .05$

Testing of this minor hypothesis resulted in only the subtest Disengagement being rejected. The combination of Disengagement, Production Emphasis, and Esprit were also rejected.

The fourth minor null hypothesis (Ho_{3d}) stated that there is no statistically significant difference in perceptions of the eight subtest dimensions of organizational climate between teachers in intermediate girls' schools located in high socioeconomic and low socioeconomic areas.

As indicated by the data in Table 24, none of the eight subtest dimensions of organizational climate and

TABLE 24

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE, AND OPENNESS FOR TEACHERS IN INTERMEDIATE GIRLS' SCHOOLS LOCATED IN HIGH AND LOW SOCIOECONOMIC AREAS

OCDQ Subtests & Openness	Teachers in High Socioeconomic Schools		Teachers in Low Socioeconomic Schools		F-Value	df (1/31) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	19.00	2.86	19.40	5.29	0.06	Not rej.**
2. Hindrance	11.00	2.52	12.60	3.08	2.44	Not rej.
3. Esprit	26.31	4.35	25.85	4.07	0.09	Not rej.
4. Intimacy	17.77	2.42	16.35	3.54	1.59	Not rej.
5. Aloofness	26.77	1.64	27.00	4.00	0.04	Not rej.
6. Production Emphasis	18.77	2.13	18.80	3.24	$0.05x_{10}^{-2}$	Not rej.
7. Thrust	30.00	3.67	28.70	6.28	0.45	Not rej.
8. Consideration	16.62	2.63	16.00	4.22	0.22	Not rej.
9. Openness*	37.31	7.17	35.15	12.35	0.32	Not rej.

*Openness is not a subtest of the eight subtest dimensions of the Organizational Climate. It is defined by the formula: Openness = Esprit + Thrust - Disengagement.

**Not rejected refers to nonsignificant difference ($p>.05$).

Openness showed statistically significant difference. The analysis also indicated that none of the combined subtests and combined subtests and Openness had statistically significant difference. Although not statistically significant, there were some differences between the two groups. The low socioeconomic group showed higher mean scores on Hindrance and relatively lower mean scores on Intimacy, and relatively lower mean scores on Openness. This may indicate that the teachers in schools located in high socioeconomic areas tended to perceive their school climate to be relatively more open in direction than the schools located in low socioeconomic areas.

Testing of this minor hypothesis resulted in no statistically significant differences on any of the eight subtest dimensions. Therefore, the null hypothesis was not rejected.

Saudi and Non-Saudi Teacher Perceptions of the Eight Subtest Dimensions of the Organizational Climate

The fourth hypothesis stated that there is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between Saudi and non-Saudi teachers. The hypothesis was analyzed first in terms of the whole population of Saudi and non-Saudi teachers for all schools included in the study. Four minor hypotheses were then tested in order to make possible analyses concerning each of the following groups:

(a) Saudi and non-Saudi teachers in elementary boys' schools.

(b) Saudi and non-Saudi teachers in elementary girls' schools.

(c) Saudi and non-Saudi teachers in intermediate boys' schools.

(d) Saudi and non-Saudi teachers in intermediate girls' schools.

The within group correlation matrix between eight subtest scores and Openness for Saudi and non-Saudi teachers is reported in Table 25 while the analysis of the major hypothesis is reported in Table 26.

As indicated by the data in Table 26, there was statistically significant difference only on the subtest Thrust. The non-Saudi teachers tended to perceive their school climate to be more open than what they were perceived to be by the Saudi teachers.

Subtest Thrust was selected to enter with each of the remaining subtests and Openness. When subtest Thrust was combined with subtest Intimacy, there was statistically significant difference. The combination of subtest Consideration with subtest Intimacy and subtest Thrust, there was statistically significant difference. When subtest Consideration was combined with subtest Intimacy and subtest Thrust, there was statistically significant difference. The combining of these subtests is reported in Table 27.

TABLE 25

WITHIN GROUP CORRELATION MATRIX BETWEEN EIGHT SUBTEST SCORES AND OPENNESS FOR SAUDI AND NON-SAUDI TEACHERS
(N = 420)

OCDQ Subests and Openness	1	2	3	4	5	6	7	8	9
1. Disengagement	1.0000								
2. Hindrance	0.2058	1.0000							
3. Esprit	-0.3148	0.0205	1.0000						
4. Intimacy	-0.0023	0.1345	0.4182	1.0000					
5. Aloofness	0.0051	0.0540	0.3595	0.2319	1.0000				
6. Production Emphasis	0.0509	-0.0034	0.2962	0.1900	0.5312	1.0000			
7. Thrust	-0.2109	0.0389	0.5311	0.2939	0.5318	0.3955	1.0000		
8. Consideration	-0.0721	-0.0069	0.4368	0.1633	0.4567	0.4529	0.6618	1.0000	
9. Openness*	-0.6358	-0.0537	0.8133	0.3246	0.4156	0.3025	0.8078	0.5439	1.0000

*Openness is not a subtest of the eight subtest dimensions of the Organizational Climate and is defined by the formula:

Openness = Esprit + Thrust - Disengagement.

TABLE 26

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR ALL SAUDI AND NON-SAUDI TEACHERS

OCDQ Subtest and Openness	Saudi (N = 233)		Non-Saudi (N = 189)		F-Value	df (1/420) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	18.53	4.87	18.15	3.92	0.73	Not rej.
2. Hindrance	12.17	2.81	12.15	2.94	0.01	Not rej.
3. Esprit	25.89	4.97	26.06	4.47	0.13	Not rej.
4. Intimacy	16.18	3.30	15.98	3.28	0.41	Not rej.
5. Aloofness	25.22	4.55	25.59	3.80	0.77	Not rej.
6. Production Emphasis	18.23	3.48	18.55	3.38	0.89	Not rej.
7. Thrust	27.39	5.91	28.78	5.23	6.33	Rejected**
8. Consideration	16.45	3.81	16.70	3.24	0.51	Not rej.
9. Openness*	34.76	11.84	36.69	10.46	3.07	Not rej.

*Openness is not a subtest of the eight OCDQ subtests. Openness is defined by the formula:

Openness = Esprit + Thrust - Disengagement.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

TABLE 27

SUBTESTS ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR SAUDI AND NON-SAUDI TEACHERS

Step No.	Subtest Entered	Number Included	F to Enter or Remove	Significance Level	Degree of Freedom	Decision (No difference)
1	7. Thrust	1	6.33	0.012	1/420	Rejected*
2	4. Intimacy	2	2.05	0.015	2/419	Rejected
3	8. Consideration	3	1.75	0.018	3/418	Rejected

*Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

The program provided the subtests, coefficients, and constants for classifying the two groups. These data are reported in Table 28.

TABLE 28

SUBTESTS, COEFFICIENTS, AND CONSTANTS FOR SAUDI AND NON-SAUDI TEACHERS

OCDQ Discriminating Variables	Saudi Teachers Group 1	Non-Saudi Teachers Group 2
4. Intimacy	1.19	1.14
7. Thrust	0.35	0.42
8. Consideration	0.75	0.70
Constant	-20.58	-21.05

The formula for classifying Saudi teachers can be stated as follows:

$$C_1 = 1.19\ (S_4) + 0.35\ (S_7) + 0.75\ (S_8) - 20.48$$

where C is the classification for group 1, and S's are the subtests of OCDQ.

The non-Saudi teachers were classified by means of the following formula:

$$C_2 = 1.14\ (S_4) + 0.42\ (S_7) + 0.70\ (S_8) - 21.05$$

where C_2 is the classification for group 2.

The Discriminant Analysis program provided the predicted group membership for Saudi and non-Saudi teachers as reported in Table 29.

TABLE 29

PREDICTED GROUP MEMBERSHIP FOR SAUDI AND NON-SAUDI TEACHERS AND PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership Group 1	Group 2
Group 1 Saudi	233	125 53.6%	108 46.4%
Group 2 Non-Saudi	189	78 41.3%	111 58.7%
Percent of "grouped" cases correctly classified:			55.92%

As indicated by the data in Table 29, 53.6 percent of the Saudi teachers could be classified correctly, and 58.7 percent of the non-Saudi teachers could be classified correctly. Therefore, the analysis indicated that there was a significant difference between Saudi and non-Saudi teachers on the Thrust dimension. A combination of Thrust and

Intimacy also showed significant difference between Saudi and non-Saudi teachers. A composite of the three subtests of Thrust, Intimacy and Consideration also showed significant difference.

The first minor hypothesis (Ho_{4a}) stated that there is no statistically significant difference in perceptions of the eight subtest dimensions of organizational climate between Saudi and non-Saudi teachers in elementary boys' schools. The analysis of this minor hypothesis is reported in Table 30.

As indicated by the data in Table 30, Saudi and non-Saudi teachers in elementary boys' schools perceived the eight dimensions of the organizational climate to be the same. Although the Discriminant Analysis program selected subtests to enter with each of the other variables, none of the entered subtests contributed to significant difference. The single subtests and the combined subtests did not discriminate between the two groups. Therefore, the null hypothesis was sistained.

The program provided classification coefficients and constants for classification of the groups in question as shown by the data in Table 31.

As presented in Table 31, the Saudi group was classified by the following formula:

$$C_1 = 0.97\ (S_1) + 0.93\ (S_5) + 0.80\ (S_6) - 26.68$$

where C_1 is the classification for group 1 (Saudi), and S's

TABLE 30

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR SAUDI AND NON-SAUDI TEACHERS IN ELEMENTARY BOYS' SCHOOLS

OCDQ Subtest and Openness	Saudi		Non-Saudi		F-Value	df (1/125) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	16.98	4.72	18.00	3.69	1.82	Not rej.**
2. Hindrance	12.58	2.82	12.29	2.51	0.38	Not rej.
3. Esprit	25.94	4.71	25.60	4.58	0.17	Not rej.
4. Intimacy	15.94	3.10	16.05	3.57	0.03	Not rej.
5. Aloofness	24.74	4.83	24.45	4.08	0.13	Not rej.
6. Production Emphasis	17.23	3.08	18.06	3.54	2.01	Not rej.
7. Thrust	28.08	5.92	27.97	5.71	0.01	Not rej.
8. Consideration	15.86	3.47	16.48	2.99	1.17	Not rej.
9. Openness*	37.03	11.50	35.56	10.79	0.55	Not rej.

*Openness is not a subtest of the eight subtest dimensions of OCDQ.

**Not rejected refers to nonsignificant difference ($p>.05$).

are the OCDQ subtests.

The non-Saudi group was classified by the following formula:

$$C_2 = 1.02\ (S_1) + 0.86\ (S_5) + 0.93\ (S_6) - 28.16.$$

TABLE 31

OCDQ SUBTEST, CLASSIFICATION COEFFICIENT, AND CONSTANTS FOR SAUDI AND NON-SAUDI TEACHERS IN ELEMENTARY BOYS' SCHOOLS

OCDQ Subtest and Constant	Saudi Teachers Group 1	Non-Saudi Teachers Group 2
1. Disengagement	0.97	1.02
2. Aloofness	0.93	0.86
3. Production Emphasis	0.80	0.93
Constant	-26.88	-28.16

The Discriminant Analysis program also provided the correct classification of Saudi and non-Saudi teachers in elementary boys' schools. As shown by the data in Table 32, 60 percent of the Saudi teachers and 64.5 percent of the non-Saudi teachers could be correctly classified.

Although the eight subtest dimensions of the organizational climate did not discriminate between the Saudi and non-Saudi teachers in elementary boys' schools, the information in Table 32 shows that they have practical value in classifying the Saudi and non-Saudi teachers. Therefore, on the basis of this minor null hypothesis, none of the eight subtest dimensions was rejected for the teachers in elementary

boys' schools and this minor null hypothesis is sustained.

TABLE 32

PREDICTED GROUP MEMBERSHIP FOR SAUDI AND NON-SAUDI TEACHERS IN ELEMENTARY BOYS' SCHOOLS, AND PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership Group 1	Group 2
Group 1 Saudi	65	39 60.0%	26 40.0%
Group 2 Non-Saudi	62	22 35.5%	40 64.5%
Percent of "grouped" cases correctly classified:			62.20%

The second minor hypothesis (Ho_{4b}) stated that there is no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between Saudi and non-Saudi teachers in elementary girls' schools.

As presented in Table 33, the single subtest concerning which there was significant difference was the subtest Intimacy. The analysis indicated that the Saudi teachers had higher mean scores for Intimacy than the non-Saudi teachers in the elementary girls' schools. The two groups perceived the subtests Disengagement, Hindrance, Thrust, and Openness differently, but not at a statistically significant level. The non-Saudi teachers had relatively lower mean scores for Disengagement and Hindrance. The same group had higher mean scores for Thrust and Openness. The

non-Saudi teachers tended to view their school climate to be relatively more open than did the Saudi teachers.

TABLE 33

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR SAUDI AND NON-SAUDI TEACHERS IN ELEMENTARY GIRLS' SCHOOLS

OCDQ Subtest and Openness	Saudi		Non-Saudi		F-Value	df (1/143) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	19.77	5.24	18.16	4.15	3.49	Not rej.**
2. Hindrance	11.58	2.82	10.88	2.95	1.97	Not rej.
3. Esprit	26.35	2.94	25.98	5.12	0.18	Not rej.
4. Intimacy	16.57	3.75	15.20	2.77	5.10	Rejected
5. Aloofness	25.95	4.63	20.22	3.07	0.15	Not rej.
6. Production Emphasis	19.70	3.03	19.63	3.12	0.01	Not rej.
7. Thrust	26.70	6.03	28.18	5.52	2.09	Not rej.
8. Consideration	17.26	3.97	16.88	3.42	0.33	Not rej.
9. Openness*	33.28	12.42	36.00	12.17	1.58	Not rej.

*Openness is not a subtest of the eight subtest dimensions of the OCDQ and is defined by the formula:

Openness = Esprit + Thrust - Disengagement.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

Subtest Intimacy was selected to enter with each of the remaining subtests and Openness. When Intimacy was combined with Thrust, there was significant difference. The subtest Thrust was selected and entered in conjunction with

subtest Intimacy with each of the remaining subtests. When subtest Thrust and subtest Intimacy were combined with subtest Consideration, there was significant difference. When these three subtests were combined with subtest Disengagement, again there was significant difference. These analyses are reported in Table 34.

TABLE 34

SUBTESTS ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR SAUDI AND NON-SAUDI TEACHERS IN ELEMENTARY GIRLS' SCHOOLS FOR THE EIGHT SUBTEST DIMENSIONS OF OCDQ AND OPENNESS

Step No.	OCDQ and Openness* Variables	Number Included	F to Enter or Remove	Degree of Freedom	Decision (No difference)
1	4. Intimacy	1	5.60	1/143	Rejected**
2	7. Thrust	2	4.40	2/142	Rejected
3	8. Consideration	3	4.88	3/141	Rejected
4	1. Disengagement	4	1.98	4/140	Rejected

*Openness is not a subtest of the eight subtest dimensions of the OCDQ.

**$p < .05$.

The data in Table 34 indicate that Intimacy contributed to significant difference between the two groups. Thrust contributed to significant difference only when it was combined with Intimacy, and Consideration became significant only when it was combined with Thrust and Intimacy. Also, Disengagement contributed to significant difference only when it was combined with Consideration, Thrust, and Intimacy.

Table 35 contains the classification coefficients and constants for the two groups. The classification coefficients and the constant for each group were entered into a formula which allowed prediction of the classification of the group.

TABLE 35

OCDQ SUBTESTS, CLASSIFICATION COEFFICIENTS, AND CONSTANTS FOR SAUDI AND NON-SAUDI TEACHERS IN ELEMENTARY GIRLS' SCHOOLS

OCDQ Subtests	Saudi Teachers Group 1	Non-Saudi Teachers Group 2
1. Disengagement	1.10	1.04
4. Intimacy	0.91	0.78
7. Thrust	0.48	0.62
8. Consideration	0.79	0.62
Constant	-31.64	-29.32

The following formula was used for Saudi teachers:

$$C_1 = 1.10\ (S_1) + 0.91\ (S_4) + 9.48\ (S_7) + 0.74\ (S_8) + (-)\ 31.64$$

where C_1 is the classification for Saudi teachers, and S's are the OCDQ subtests.

The formula for non-Saudi teachers in elementary girls' schools was as follows:

$$C_2 = 1.04\ (S_1) + 0.78\ (S_4) + 0.62\ (S_7) + 0.62\ (S_8) + (-)\ 31.64$$

C_2 = Classification for non-Saudi teachers.

The data in Table 36 indicate that 64.6 percent of the Saudi teachers in elementary girls' schools could be correctly classified and that 71.4 percent of the non-Saudi teachers in elementary girls' schools could be correctly classified.

TABLE 36

PREDICTED GROUP MEMBERSHIP FOR SAUDI AND NON-SAUDI TEACHERS IN ELEMENTARY GIRLS' SCHOOLS, AND PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership Group 1	Group 2
Group 1 Saudi	96	62 64.6%	34 35.4%
Group 2 Non-Saudi	49	14 28.6%	35 71.4%
Percent of "grouped" cases correctly classified: 66.9%			

Testing of this minor hypothesis resulted in rejection of Intimacy when single subtests were considered. The combination of Intimacy and Thrust, the combination of these two and Consideration, and the combination of all three and Disengagement were rejected for the teachers in elementary girls' schools.

The third minor hypothesis (Ho_{4c}) stated that there is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between Saudi and non-Saudi teachers in intermediate boys' schools.

The analysis of this minor hypothesis is reported in Table 37. There was significant difference for subtest Thrust and Openness. When Thrust was selected to enter with each of the remaining subtests and Openness, none of the combinations contributed to significant difference. The non-Saudi teachers considered their school climates more open than did the Saudi Teachers.

TABLE 37

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR SAUDI AND NON-SAUDI TEACHERS IN INTERMEDIATE BOYS' SCHOOLS

OCDQ Subtest and Openness	Saudi		Non-Saudi		F-Value	df (1/114) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	18.21	4.05	17.62	3.53	0.71	Not rej.**
2. Hindrance	13.00	2.59	12.91	2.99	0.03	Not rej.
3. Esprit	25.36	5.35	26.45	4.04	1.52	Not rej.
4. Intimacy	15.80	2.93	16.15	3.10	0.37	Not rej.
5. Aloofness	24.54	4.06	25.38	4.09	1.23	Not rej.
6. Production Emphasis	17.07	3.82	17.71	3.41	0.91	Not rej.
7. Thrust	27.74	5.51	29.73	4.65	4.37	Rejected
8. Consideration	15.87	3.75	16.87	3.18	2.39	Not rej.
9. Openness*	34.89	11.07	38.56	8.55	3.95	Rejected

*Openness is not a subtest of the eight subtest dimensions of OCDQ and is defined by the formula:
Openness = Esprit + Thrust - Disengagement.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

As before, the program provided the predicted group membership for each group. The percentages of correctly classified cases is reported in Table 38.

TABLE 38

PREDICTED GROUP MEMBERSHIP FOR SAUDI AND NON-SAUDI TEACHERS IN INTERMEDIATE BOYS' SCHOOLS, AND PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership Group 1	Group 2
Group 1 Saudi	61	38 62.3%	23 37.7%
Group 2 Non-Saudi	55	30 54.5%	25 45.5%
Percent of "grouped" cases correctly classified:			54.31%

Among the Saudi teachers, 62.3 percent could be correctly classified while only 45.5 percent of the non-Saudi teachers could be classified.

Testing of this minor hypothesis resulted in rejection of only the subtest Thrust. The other seven subtest dimensions were not rejected.

The fourth minor hypothesis (Ho_{4d}) stated that there is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between Saudi and non-Saudi teachers in intermediate girls' schools.

The information in Table 39 indicates that subtest Hindrance was statistically significant. The other subtests and Openness could not be rejected. Hindrance was the only

subtest which discriminated between the two groups.

TABLE 39

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR SAUDI AND NON-SAUDI TEACHERS IN INTERMEDIATE GIRLS' SCHOOLS

OCDQ Subtests & Openness	Saudi		Non-Saudi		F-Value	df (1/31) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	18.55	4.13	19.59	4.64	9.64	Not rej.
2. Hindrance	10.18	1.72	12.86	3.04	7.29	Rejected**
3. Esprit	24.55	4.66	26.77	3.72	2.23	Not rej.
4. Intimacy	16.36	1.80	17.18	3.80	0.48	Not rej.
5. Aloofness	25.55	4.34	27.59	2.36	3.11	Not rej.
6. Production Emphasis	17.73	3.07	19.32	2.59	2.45	Not rej.
7. Thrust	27.55	7.08	30.05	4.25	1.62	Not rej.
8. Consideration	16.18	3.74	16.27	3.68	$0.05x_{10}^{-1}$	Not rej.
9. Openness*	33.55	12.21	37.23	9.67	0.89	Not rej.

*Openness is not a subtest of the eight subtest dimensions of the OCDQ.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

The subtest Hindrance was selected to enter with the remaining subtests and Openness. The combination of Hindrance and Esprit resulted in an F-value of 7.21 for the two subtests. This represented an increase in F-value which contributed to statistically significant difference between the two groups. When subtest Esprit was selected, the F-values

were too small for further computation. Therefore, the subtest Hindrance and the combination of Hindrance and Esprit were statistically significant and discriminated between the two groups.

There were differences in the perceptions of Saudi and non-Saudi teachers of Disengagement, Hindrance, Esprit, Production Emphasis, Thrust and Openness, but not at a statistically significant level. It may be that climates were viewed to be relatively more open by the non-Saudi teachers.

The information in Table 40 shows that Saudi and non-Saudi teachers in intermediate girls' schools could be classified by using the subtests Hindrance and Esprit.

TABLE 40

OCDQ SUBTESTS, CLASSIFICATION COEFFICIENTS, AND CONSTANTS FOR SAUDI AND NON-SAUDI TEACHERS IN INTERMEDIATE GIRLS' SCHOOLS

OCDQ Subtests	Saudi Teachers Group 1	Non-Saudi Teachers Group 2
2. Hindrance	3.04	3.62
3. Esprit	2.41	2.72
Constant	-45.10	-59.75

The following formula was used to classify the Saudi teachers:

$$C_1 = 3.04\ (S_2) + 2.41\ (S_3) - 45.10$$

The following formula was used to classify the non-Saudi teacher:

$$C_2 = 3.62\ (S_2) + 2.41\ (S_3) - 59.75$$

where C's are the group classification, and S's are the OCDQ subtests.

The data in Table 41 show that 72.7 percent of Saudi teachers in intermediate girls' schools could be correctly classified while 72.7 percent of the non-Saudi group could be correctly classified.

TABLE 41

PREDICTED GROUP MEMBERSHIP FOR SAUDI AND NON-SAUDI TEACHERS IN INTERMEDIATE GIRLS' SCHOOLS AND PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership Group 1	Group 2
Group 1 Saudi	11	8 72.7%	3 27.3%
Group 2 Non-Saudi	22	6 27.3%	16 72.7%
Percent of grouped cases correctly classified: 72.73%			

Therefore, testing of this minor hypothesis resulted in rejection of the subtest Hindrance. The remaining seven subtest dimensions were not rejected for either Saudi or non-Saudi teachers in intermediate girls' schools.

Teacher Perceptions of the Eight Subtest Dimensions of the Organizational Climate in Rented and Nonrented School Buildings

The fifth hypothesis of this study stated that there is no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between teachers in rented and nonrented school buildings in each of the four groups of schools.

The testing of the hypothesis for group 1 is reported in Table 42. There was statistically significant difference for subtests Thrust and Consideration. The remaining six subtest dimensions and Openness were not rejected. Combining subtests did not result in discrimination between the two groups.

There were some differences between the two groups, but not at a statistically significant level. The teachers in nonrented school buildings had relatively higher mean scores for the subtests Hindrance, Esprit, Intimacy, Aloofness, Production Emphasis, and Openness. The same group tended to view their school climates as relatively more open than those in the rented school buildings.

The data in Table 43 indicate that 64 percent of the teachers in nonrented elementary boys' schools could be correctly classified. Among teachers in rented buildings, 52 percent could be correctly classified.

TABLE 42

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR TEACHERS IN RENTED AND NONRENTED SCHOOL BUILDINGS IN ELEMENTARY BOYS' SCHOOLS

OCDQ Subtest and Openness	Rented		Nonrented		F-Value	df (1/135) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	17.62	4.33	17.51	4.33	0.02	Not rej.
2. Hindrance	12.15	2.57	12.68	2.67	1.35	Not rej.
3. Esprit	25.71	4.77	25.92	4.54	0.07	Not rej.
4. Intimacy	15.96	3.30	16.16	3.41	0.11	Not rej.
5. Aloofness	24.27	4.72	25.44	3.90	2.40	Not rej.
6. Production Emphasis	17.46	3.44	18.27	3.10	2.02	Not rej.
7. Thrust	27.13	6.26	29.42	4.44	5.75	Rejected**
8. Consideration	15.56	3.29	17.12	2.95	8.19	Rejected
9. Openness*	35.22	11.42	37.83	10.56	1.88	Not rej.

*Openness is not a subtest of the eight subtest dimensions of OCDQ.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

TABLE 43

PREDICTED GROUP MEMBERSHIP FOR TEACHERS IN NONRENTED AND RENTED ELEMENTARY BOYS' SCHOOLS

Actual Group	No. of Cases	Predicted Group Membership Group 1	Group 2
Group 1 Nonrented Schools	59	38 64.4%	21 35.6%
Group 2 Rented Schools	78	37 47.4%	41 52.6%
	339	191 56.2%	148 43.8%
Percent of grouped cases correctly classified: 57.66%			

Testing of the fifth hypothesis resulted in rejection of subtests Thrust and Consideration. The other six subtest dimensions were not rejected.

The analysis of the fifth hypothesis for group 2 is reported in Table 44. There was no statistically significant difference for any of the eight subtest dimensions and Openness.

The subtest Esprit was selected to enter with each of the remaining subtests and Openness. The combination of subtest Esprit and subtest Production Emphasis resulted in an F-value of 3.50 which was not large enough to account for statistically significant difference. Therefore, Ho_5 for group 2 was sustained.

The teachers in nonrented school buildings had relatively higher mean scores for Esprit, Intimacy, Thrust, and Openness. The same group had relatively lower mean scores

for Disengagement and Production Emphasis. The climates in nonrented schools tended to be relatively more open than the climates in rented school buildings, but the differences were not statistically significant.

TABLE 44

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR TEACHERS IN RENTED AND NONRENTED SCHOOL BUILDINGS IN ELEMENTARY GIRLS' SCHOOLS

OCDQ Subtest and Openness	Rented		Nonrented		F-Value	df (1/144) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	19.34	5.05	19.00	4.78	0.17	Not rej.**
2. Hindrance	11.26	2.91	11.40	2.88	0.08	Not rej.
3. Esprit	25.77	4.85	26.91	5.12	1.85	Not rej.
4. Intimacy	16.06	2.99	16.17	4.16	0.64	Not rej.
5. Aloofness	26.11	4.17	25.93	4.11	0.07	Not rej.
6. Production Emphasis	19.92	3.21	19.31	2.75	1.41	Not rej.
7. Thrust	27.16	5.85	27.28	5.93	0.01	Not rej.
8. Consideration	17.14	3.82	17.16	3.75	$0.05x_{10}^{-2}$	Not rej.
9. Openness*	33.59	12.58	35.19	11.97	0.59	Not rej.

*Openness is not a subtest of the eight subtest dimensions of OCDQ.

**Not rejected refers to nonsignificant difference ($p>.05$).

Predicted group membership was calculated as before through use of the Discriminant Analysis program. The results are reported in Table 45.

TABLE 45

PREDICTED GROUP MEMBERSHIP FOR TEACHERS IN RENTED AND NONRENTED SCHOOL BUILDINGS IN ELEMENTARY GIRLS' SCHOOLS, AND THE PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership Group 1	Group 2
Group 1 Rented Schools	88	52 59.1%	36 40.9%
Group 2 Nonrented Schools	58	24 41.4%	34 58.6%
Percent of grouped cases correctly classified: 52.9%			

Testing of the fifth hypothesis for group 2 did not result in rejection of any of the eight subtests. Therefore, the fifth hypothesis for group 2 was sustained.

The analysis of the fifth hypothesis for group 3 is reported in Table 46. There was statistically significant difference for subtest Esprit, subtest Thrust, and Openness.

Openness was selected to enter and when it was combined with subtest Production Emphasis, the combination contributed to statistically significant difference. Subtest Disengagement was selected which, in conjunction with subtest Production Emphasis and Openness, was combined with each of the remaining subtests. The combination of Production Emphasis and Openness with Disengagement contributed to statistically significant difference. These tests are reported in Table 47.

TABLE 46

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR TEACHERS IN RENTED AND NONRENTED SCHOOL BUILDINGS IN INTERMEDIATE BOYS' SCHOOLS

OCDQ Subtest and Openness	Rented		Nonrented		F-Value	df (1/114) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	18.30	3.72	17.29	3.90	1.91	Not rej.
2. Hindrance	12.91	2.66	13.05	3.00	0.07	Not rej.
3. Esprit	24.82	4.93	27.74	3.92	10.77	Rejected**
4. Intimacy	15.62	3.01	16.57	2.93	2.72	Not rej.
5. Aloofness	24.62	4.13	25.50	3.97	1.25	Not rej.
6. Production Emphasis	17.28	3.59	17.52	3.74	0.12	Not rej.
7. Thrust	27.34	5.62	31.05	3.24	15.39	Rejected
8. Consideration	16.04	3.69	16.88	3.15	1.54	Not rej.
9. Openness*	33.86	10.57	41.50	6.94	17.58	Rejected

*Openness is not a subtest of the eight subtest dimensions of the OCDQ.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

TABLE 47

SUBTEST AND OPENNESS ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR TEACHERS IN RENTED AND NONRENTED INTERMEDIATE BOYS' SCHOOLS

Step No.	Subtest & Openness Entered	Number Included	F-Value	Significance	Degree of Freedom	Decision (No difference)
1	9. Openness*	1	17.58	0.000	1/114	Rejected**
2	6. Production Emphasis	2	2.02	0.000	2/113	Rejected
3	1. Disengagement	3	3.14	0.000	3/112	Rejected

*Openness is not a subtest of the eight subtest dimensions of the OCDQ.

**Rejected refers to significant difference ($p<.05$).

Constants and classification coefficients for groups one and two are reported in Table 48. The classification formula used for group 1 was as follows:

$$C_1 = 2.63\ (S_1) + 0.16\ (S_6) + 0.96\ (Op) - 41.67$$

where C_1 is the group classification for teachers in rented schools, and S's are the OCDQ subtests, and Op is Openness.

The classification formula for group 2 was as follows:

$$C_2 = 2.76\ (S_1) + 0.03\ (S_6) + 1.09\ (Op) - 26.80$$

where C_2 is the group classification for teachers in non-rented schools, and S's are the OCDQ subtests, and Op is Openness.

TABLE 48

OCDQ SUBTESTS AND OPENNESS, CLASSIFICATION COEFFICIENTS, AND CONSTANTS FOR CLASSIFYING TEACHERS IN RENTED AND NONRENTED INTERMEDIATE BOYS' SCHOOLS

OCDQ Subtest and Openness	Rented Schools Group 1	Nonrented Schools Group 2
1. Disengagement	2.63	2.76
6. Production Emphasis	0.16	0.03
9. Openness	0.46	1.09
Constant	-41.67	-46.80

The program also provided the predicted group membership for the teachers in rented and nonrented school buildings in intermediate boys' schools. These predictions are shown in Table 49.

TABLE 49

PREDICTED GROUP MEMBERSHIP FOR TEACHERS IN RENTED AND NONRENTED SCHOOL BUILDINGS IN INTERMEDIATE BOYS' SCHOOLS, AND PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership Group 1	Group 2
Group 1 Rented Schools	42	34 81.0%	8 19.0%
Group 2 Nonrented Schools	74	25 33.8%	44 66.2%
Percent of grouped cases correctly classified: 71.55%			

Testing of the fifth hypothesis for group three resulted in rejection of subtests Esprit and Thrust. The remaining subtest dimensions were not rejected. The

combination of Openness and Production Emphasis were rejected. Also, the combination of Openness, Production Emphasis, and Disengagement were rejected.

The analysis of the fifth hypothesis for group 4 is reported in Table 50. Subtest dimensions Disengagement, Hindrance, and Thrust as well as Openness were statistically significant.

TABLE 50

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR TEACHERS IN RENTED AND NONRENTED SCHOOL BUILDINGS IN INTERMEDIATE GIRLS' SCHOOLS

OCDQ Subtest and Openness	Rented		Nonrented		F-Value	df (1/31) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	21.60	6.13	18.22	3.10	4.49	Rejected**
2. Hindrance	14.00	3.23	11.09	2.37	8.42	Rejected
3. Esprit	24.00	3.30	26.91	4.19	3.79	Not rej.
4. Intimacy	17.50	3.47	16.65	3.10	0.49	Not rej.
5. Aloofness	25.30	4.72	27.61	2.13	3.84	Not rej.
6. Production Emphasis	18.80	3.36	18.78	2.63	$0.05x_{10}^{-2}$	Not rej.
7. Thrust	25.00	6.83	31.04	3.38	11.76	Rejected
8. Consideration	14.70	5.03	16.91	2.71	2.71	Not rej.
9. Openness*	27.40	11.75	39.74	7.53	13.21	Rejected

*Openness is not a subtest of the eight subtest dimensions of the OCDQ.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

The teachers in rented school buildings had higher mean scores for Disengagement and Hindrance and the teachers in nonrented school buildings had higher mean scores for Esprit, Aloofness, Thrust, Consideration, and Openness. The school climates were considered more open in nonrented schools than in the rented school buildings.

By use of the Discriminant Analysis program, Openness and several subtests were selected to enter and combine with each of the remaining subtests. The combination of Openness and Hindrance contributed to statistically significant difference. The combination of Hindrance, Openness and Aloofness also contributed to statistically significant difference as did the combination of Hindrance, Openness, Aloofness and Intimacy. These combinations are reported in Table 51.

TABLE 51

OPENNESS AND SUBTESTS ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR TEACHERS IN RENTED AND NONRENTED INTERMEDIATE GIRLS' SCHOOLS

Step No.	Openness & Subtests Entered	Number Included	F to Enter or Remove	Significance	Degree of Freedom	Decision (No difference)
1	9. Openness*	1	13.61	0.001	1/31	Rejected**
2	2. Hindrance	2	4.75	0.001	2/30	Rejected
3	5. Aloofness	3	1.80	0.001	3/29	Rejected
4	4. Intimacy	4	1.67	0.002	4/28	Rejected

*Openness is not a subtest of the eight subtest dimensions of the OCDQ.

**Rejected refers to significant difference ($p<.05$).

Classification coefficients and constants for the two groups are reported in Table 52. These were used in the classification formulas.

TABLE 52

OCDQ SUBTESTS AND OPENNESS, CLASSIFICATION COEFFICIENTS, AND CONSTANTS FOR CLASSIFICATION OF TEACHERS IN RENTED AND NONRENTED INTERMEDIATE GIRLS' SCHOOLS

OCDQ Subtest and Openness	Rented Schools Group 1	Nonrented Schools Group 2
2. Hindrance	0.86	0.30
4. Intimacy	1.41	1.19
5. Aloofness	2.30	2.63
9. Openness	-0.17	-0.07
Constant	-45.02	-46.38

The classification formula for group 1 was as follows:

$$C_1 = 0.86\ (S_2) + 1.41\ (S_4) + 2.30\ (S_5) - 0.17\ (Op) - 45.02$$

where C_1 is the group classification for teachers in rented schools, and S's are the OCDQ subtests, and Op is Openness.

The classification formula for group 2 was as follows:

$$C_2 = 0.30\ (S_2) + 1.19\ (S_4) + 2.63\ (S_5) - 0.07\ (Op) - 46.3$$

By use of the Discriminant Analysis program, group membership was predicted. Among teachers in the rented

intermediate girls' schools, 90 percent could be correctly classified. Among teachers in the nonrented schools, 87 percent could be correctly classified. The data also indicated that 87.88 percent of the grouped cases were correctly classified.

Testing of the fifth hypothesis for group four resulted in rejection of subtest dimensions Disengagement, Hindrance and Thrust. The remaining subtest dimensions were sustained. The combination of Openness and Hindrance was rejected as was the combination of Openness, Hindrance and Aloofness. The combination of these three and Intimacy were also rejected.

Principal Perceptions of the Eight Subtest Dimensions of the Organizational Climate in Boys' and Girls' Schools

The sixth hypothesis of this study stated that there is no statistically significant difference in perceptions of the eight subtest dimensions of organizational climate between the school principals in boys' and girls' schools. This null hypothesis was tested for each of the following groups:

(1) Elementary school principals in boys' and girls' schools.

(2) Intermediate school principals in boys' and girls' schools.

The analysis of the sixth hypothesis for group 1 is reported in Table 53.

TABLE 53

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR PRINCIPALS IN ELEMENTARY BOYS' AND GIRLS' SCHOOLS

OCDQ Subtest and Openness	Boys' Schools		Girls' Schools		F-Value	df (1/34) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	16.74	5.06	18.88	4.43	1.72	Not rej.**
2. Hindrance	13.32	2.50	11.65	2.06	4.72	Rejected
3. Esprit	28.11	4.79	26.47	5.09	0.98	Not rej.
4. Intimacy	17.05	3.22	15.76	3.38	1.37	Not rej.
5. Aloofness	25.63	0.13	27.24	2.59	1.37	Not rej.
6. Production Emphasis	18.53	2.89	19.94	2.28	2.61	Not rej.
7. Thrust	29.95	4.61	30.18	3.30	0.03	Not rej.
8. Consideration	16.63	2.79	16.88	2.85	0.07	Not rej.
9. Openness*	41.26	11.71	37.76	9.73	0.94	Not rej.

*Openness is not a subtest of the eight subtest dimensions of the Organizational Climate, and is defined by the formula: Openness = Esprit + Thrust - Disengagement.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

On the subtest Hindrance there was significant difference. Elementary school principals in boys' schools had higher mean scores for Hindrance. The principals of elementary girls' schools had relatively higher mean scores for Disengagement, Aloofness, and Production Emphasis, but not at a statistically significant level. The principals in elementary boys' schools had relatively higher mean scores

for Openness. This may mean that they considered their school climates to be relatively more open than principals in the elementary girls' schools.

Hindrance was selected to enter with the remaining subtests and Openness. The combination of Hindrance and Disengagement contributed to significant difference. The combination of Hindrance, Disengagement, and Production Emphasis also contributed to significant difference. These combinations are reported in Table 54.

TABLE 54

SUBTEST ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR PRINCIPALS IN ELEMENTARY BOYS' AND GIRLS' SCHOOLS

Step No.	OCDQ Subtest	Number Included	F to Enter or Remove	Significance	Degree of Freedom	Decision (No difference)
1	2. Hindrance	1	4.72	0.035	1/34	Rejected
2	1. Disengagement	2	4.58	0.014	2/33	Rejected
3	6. Production Emphasis	3	5.41	0.004	3/32	Rejected

Classification coefficients and constants for classifying each of the two groups were determined through use of the Discriminant Analysis program. These are reported in Table 55.

TABLE 55

OCDQ SUBTEST, CLASSIFICATION COEFFICIENTS, AND CONSTANTS FOR THE PRINCIPALS OF ELEMENTARY BOYS' AND GIRLS' SCHOOLS

OCDQ Subtest and Constant	Boys' Schools Group 1	Girls' Schools Group 2
1. Disengagement	0.79	1.02
2. Hindrance	1.42	0.85
6. Production Emphasis	2.80	3.17
Constant	-41.98	-46.20

The principals in elementary boys' schools were classified by the following formula:

$$C_1 = 0.79\ (S_1) + 1.42\ (S_2) + 2.80\ (S_6) - 41.98$$

where C_1 is the classification for group 1, and S's are the OCDQ subtests.

The principals in elementary girls' schools were classified by the following formula:

$$C_2 = 1.02\ (S_1) + 0.85\ (S_2) + 3.70\ (S_6) - 46.20.$$

The Discriminant Analysis program provided the predicted group membership for each group. These are shown in Table 56.

Among the principals in elementary boys' schools, 86.2 percent could be correctly classified while 82.4 percent of the principals in elementary girls' schools were correctly classified.

Testing of the sixth hypothesis for group 1 resulted in rejection of the subtest Hindrance. The other seven

subtest dimensions were not rejected. The combination of Hindrance and Disengagement were rejected as was the combination of these two subtests and Production Emphasis.

TABLE 56

PREDICTED GROUP MEMBERSHIP FOR PRINCIPALS OF ELEMENTARY BOYS' AND GIRLS' SCHOOLS, AND THE PERCENT OF GROUPED CASES CORRECTLY CLASSIFIED

Actual Group	No. of Cases	Predicted Group Membership Group 1	Group 2
Group 1 Boys' Schools	19	16 84.2%	3 15.8%
Group 2 Girls' Schools	17	3 17.6%	14 82.4%
Percent of grouped cases correctly classified: 83.33%			

As reported in Table 57, there was significant difference for Openness, Consideration, Thrust and Aloofness in group 2. The principals in intermediate girls' schools considered their schools to be more open than the intermediate boys' schools.

Use of the Discriminant Analysis program resulted in selection of the subtest Consideration to enter with the remaining subtests. The combination of subtest Consideration and subtest Aloofness contributed to significant difference. Subtest Disengagement was then entered which, in conjunction with subtest Consideration and Aloofness, combined with each of the remaining subtests. These combinations also contributed to significant difference. These data are reported in Table 58.

TABLE 57

MEANS, STANDARD DEVIATIONS AND F-VALUES FOR THE EIGHT SUBTEST DIMENSIONS OF ORGANIZATIONAL CLIMATE AND OPENNESS FOR PRINCIPALS IN INTERMEDIATE BOYS' AND GIRLS' SCHOOLS

OCDQ Subtest and Openness	Boys' Schools		Girls' Schools		F-Value	df (1/17) Decision (No difference)
	Mean Scores	S.D.	Mean Scores	S.D.		
1. Disengagement	18.13	3.96	10.50	1.00	0.64	Not rej.
2. Hindrance	12.33	1.59	11.25	2.87	1.05	Not rej.
3. Esprit	24.80	3.86	26.50	2.52	0.68	Not rej.
4. Intimacy	16.40	1.35	16.50	1.73	0.02	Not rej.
5. Aloofness	26.33	2.74	30.00	3.05	4.97	Not rej.
6. Production Emphasis	18.87	2.45	21.50	3.11	3.30	Not rej.
7. Thrust	27.93	3.10	32.25	2.87	6.26	Rejected
8. Consideration	16.67	1.11	19.00	1.41	12.52	Rejected
9. Openness*	34.60	6.46	42.25	3.10	5.13	Rejected

*Openness is not a subtest of the eight subtest dimensions of the Organizational Climate, and is defined by the formula: Openness = Esprit + Thrust - Disengagement.

**Rejected refers to significant difference ($p<.05$), and not rejected refers to nonsignificant difference ($p>.05$).

TABLE 58

OCDQ SUBTEST ENTERED, NUMBER INCLUDED, F TO ENTER OR REMOVE AND SIGNIFICANCE FOR PRINCIPALS IN INTERMEDIATE BOYS' AND GIRLS' SCHOOLS

Step No.	OCDQ Subtest	Number Included	F to Enter or Remove	Significance	Degree of Freedom	Decision (No difference)
1	8. Consideration	1	12.52	0.003	1/17	Rejected*
2	5. Aloofness	2	3.56	0.003	2/16	Rejected
3	1. Disengagement	3	3.26	0.002	3/15	Rejected

*Rejected refers to significant difference ($p<.05$).

The program provided the classification coefficients and constants for classifying the two groups. These are reported in Table 59.

TABLE 59

OCDQ SUBTEST, CLASSIFICATION COEFFICIENTS, AND CONSTANTS FOR THE PRINCIPALS IN INTERMEDIATE BOYS' AND GIRLS' SCHOOLS

OCDQ Subtest and Constant	Boys' Schools Group 1	Girls' Schools Group 2
1. Disengagement	-0.60	-1.09
5. Aloofness	3.90	4.68
8. Consideration	13.28	15.36
Constant	-156.57	-207.09

The principals in intermediate boys' schools were classified by the following formula:

$$C_1 = 3.90\ (S_5) - 0.30\ (S_1) + 13.20\ (S_8) - 156.57$$

where C_1 is the group classification (group 1), and S's are the OCDQ subtests.

Group 2 was classified by the following formula:

$$C_2 = 4.58\ (S_5) - 1.09\ (S_1) + 15.30\ (S_8) - 207.09.$$

The program also provided the predicted group membership for each of the two groups and the percent of grouped cases correctly classified. These predictions were that 93.3 percent of the school principals in intermediate boys' schools were correctly classified and that 100 percent of the principals in intermediate girls' schools were correctly classified. The percent of grouped cases correctly classified was 94.74 percent.

Testing of the sixth hypothesis for group 2 resulted in rejection of subtests Thrust and Consideration. The combination of Consideration and Aloofness as well as the combination of these two subtests and Disengagement resulted in rejection.

CHAPTER V

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is concerned with the summary of findings of the study. It also contains conclusions and recommendations based on the findings of the study.

Problem Statement

This study was designed to investigate the teacher-principal perceptions of the organizational climate in selected schools in Riyadh, Saudi Arabia, in relation to the location of the school, type of the school buildings, type of education (boys or girls), and the nationality (Saudi or non-Saudi) of the teacher.

The research was directed to the testing of the following hypotheses:

Ho_1 There is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between teachers and principals.

Ho_2 There is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between teachers in four different types of schools.

Ho_3 There is no statistically significant difference in perception of the eight subtest dimensions of organizational climate between school staffs in schools located in high socioeconomic and low socioeconomic areas.

Ho_4 There is no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between Saudi and non-Saudi teachers.

Ho_5 There is no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between teachers in rented and nonrented school buildings.

Ho_6 There is no statistically significant difference in perception of the eight subtest dimensions of the organizational climate between school principals in boys' and girls' schools.

The research also involved seeking answers to the following questions:

(1) What is the status of schools in Riyadh, Saudi Arabia?

(2) How do the teachers and the principals perceive the school climates?

(3) Are there differences in the perception of organizational climate in boys' schools and girls' schools?

(4) What are the factors which contribute to the "openness" or "closedness" of schools in Riyadh?

(5) How can teacher shortage be reduced and better communication be provided for the schools in Saudi Arabia?

Summary of Findings

1. Testing of the first hypothesis indicated that there was significant difference in the perceptions of teachers and principals for the dimensions of Aloofness and Thrust. The principals perceived themselves to be aloof which is characterized as formal and impersonal. The principals also considered their schools to be more open than did the teachers.

2. Testing of the second hypothesis indicated that there was significant difference in the perceptions of four of the subtest dimensions of organizational climate among teachers in elementary boys' schools, elementary girls' schools, intermediate boys' schools, and intermediate girls' schools. They differed significantly for the dimensions of Disengagement, Hindrance, Aloofness and Production Emphasis. Also, teachers in boys' schools tended to view their schools as having more open climates than those in the girls' schools.

3. Testing of the third hypothesis indicated that there was significant difference in the perceptions of Disengagement, Aloofness, Production Emphasis and Consideration between school staffs in schools located in high and low socioeconomic areas. The relationship between teachers and principals appeared to be relatively better in schools

located in high socioeconomic areas than those located in low socioeconomic areas. However, even in the high socioeconomic schools, principals were perceived to be aloof and to emphasize production, which characterizes these principals as following strict roles and closely supervising their school staffs. The schools in high socioeconomic areas seemed to have relatively better school climates than the schools located in low socioeconomic areas.

When the third hypothesis was tested for teachers in boys' schools, the analysis indicated that none of the eight subtest dimensions was significant. Therefore, teachers in boys' schools located in high and low socioeconomic areas had similar perceptions of the eight dimensions of organizational climate. Still, the teachers in elementary boys' schools located in high socioeconomic areas tended to perceive their schools as having more open climates than those in schools located in low socioeconomic areas.

In the elementary girls' schools, the teachers in schools located in high and low socioeconomic areas differed significantly in their perceptions of the subtests Disengagement, Hindrance, Production Emphasis, Thrust, and Consideration.

In intermediate boys' schools, the teachers in schools located in high and low socioeconomic areas differed in their perceptions only of the subtest Disengagement. School climates in intermediate boys' schools located in

high socioeconomic areas seemed to be perceived as being more open than the schools located in low socioeconomic areas.

In intermediate girls' schools, the teachers in schools located in high and low socioeconomic areas did not differ significantly in their perceptions of the eight subtest dimensions of organizational climate. In the schools located in the high socioeconomic areas, the scores on openness were relatively higher than in those schools located in low socioeconomic levels.

4. Testing of the fourth hypothesis indicated that Saudi and non-Saudi teachers did not differ significantly except for the subtest Thrust. The school climates were viewed as more open by non-Saudi teachers than by Saudi teachers.

Saudi and non-Saudi teachers in elementary boys' schools did not differ significantly in their perceptions of the eight subtest dimensions of the OCDQ.

Saudi and non-Saudi teachers in elementary girls' schools differed significantly on only the subtest Intimacy. The Saudi teachers in elementary girls' schools appeared to have more friendly social relations with each other than did the non-Saudi teachers.

Saudi and non-Saudi teachers in intermediate boys' schools differed significantly on only the subtest Thrust. The two groups also differed significantly on Openness. The non-Saudi teachers had higher Openness scores than the Saudi teachers.

Saudi and non-Saudi teachers in intermediate girls' schools differed significantly on only the subtest Hindrance. The non-Saudi teachers perceived the school principal as higher in Hindrance than did the Saudi teachers.

5. Testing of the fifth hypothesis indicated that in elementary boys' schools there was significant difference in the perceptions of Thrust and Consideration between teachers in rented and nonrented buildings. The teachers in nonrented schools had relatively higher Openness scores than the teachers in rented schools.

Teachers in rented and nonrented elementary school buildings for girls did not differ significantly in their perceptions of the eight subtest dimensions.

The teachers in rented and nonrented intermediate boys' schools differed significantly in their perceptions of the subtests Esprit and Thrust. Those in nonrented buildings had the higher scores on the two subtests. Also, the Openness scores were significantly higher in the nonrented buildings.

The teachers in rented and nonrented intermediate girls' schools differed significantly in their perceptions of the subtests Disengagement, Hindrance and Thrust. Teachers in the nonrented schools also scored significantly higher on Openness than those in rented buildings.

6. Testing of the sixth hypothesis indicated that principals in elementary boys' and girls' schools differed

significantly in their perceptions on the subtest Hindrance. The principals in boys' schools had relatively higher Openness scores than the principals in elementary girls' schools.

The principals of intermediate boys' and girls' schools differed significantly in their perceptions of the subtests Thrust and Consideration. Also, the principals of the intermediate girls' schools perceived the climates of their schools to be significantly more open than principals of the intermediate boys' schools.

Answers to the Research Questions

Following is a summary of the answers to the research questions:

1. The highly centralized school system of Saudi Arabia had resulted in tight control of the local schools by the central governmental agencies. The local schools had little or no authority in developing the school curriculum. Teachers and principals were accountable for the completion of school textbooks at the end of the school year. Most of the schools were housed in residential buildings which had small rooms and limited educational facilities. The location of the schools in Riyadh was determined by the availability of buildings which may be rented for the school. Teachers and principals did not participate in the planning of the school buildings. Most of the schools in the country were staffed with teachers of other nationalities because of the shortage of Saudi teachers.

2. Teachers and principals tended to perceive school climates similarly. The differences that were found indicated that principals tended to perceive the climate as being more open than the teachers.

3. There were significant differences in perceptions on several subtests between boys' schools and girls' schools. Staffs in boys' schools tended to view climates as more open that those in girls' schools.

4. The type of education, the type of school buildings, and the location of the schools were found to be factors which contributed to the Openness of schools in Riyadh. The boys' schools were relatively more open than girls' schools. The nonrented schools were more open than the rented schools. The schools which were located in high socioeconomic areas were more open than the schools located in low socioeconomic areas.

5. Reduction of the teacher shortage is dealt with as part of the recommendations outlined later in this chapter.

Conclusions

Conclusions based on the findings of the study were as follows:

1. The relationship of principals and teachers can be described as reasonably satisfactory, but relatively formal in character.

2. The interaction among teachers in the schools located in low socioeconomic areas were limited when compared

with the relationship among teachers in the schools located in higher socioeconomic areas.

3. The schools in the high socioeconomic areas and in nonrented buildings were characterized by a more flexible school environment than the schools in low socioeconomic areas and the schools housed in rented buildings.

4. Saudi and non-Saudi teachers with different social backgrounds seemed to understand each other and communication between them was reasonably satisfactory.

5. Interaction and communication among teachers in the schools housed in nonrented buildings were more extensive and satisfactory than was the case among teachers in schools housed in rented buildings.

6. The atmosphere in the girls' schools can be described as more rigid in character than that of the boys' schools.

7. Weak leadership and poor morale characterized both the central educational system and the local schools.

8. The highly centralized system of education, with lack of qualified personnel, contributed to the lack of effectiveness and efficiency of the schools in Saudi Arabia.

Recommendations

1. The Ministry of Education and General Administration of Girls' Education should delegate some of their

authority to the local schools and should encourage teacher participation in curriculum development. The participation of teachers and principals in decision-making is importantly related to the development of education in Saudi Arabia.

2. The central government authority should make every effort to motivate teachers and encourage students in the colleges and universities to teach after their graudation.

3. Elementary school teachers should be encouraged to take courses to complete their college degrees or at least to obtain junior college degrees.

4. Educational colleges and teacher training institutes should take the initiative in providing students training in administration so that administrators in the schools can perform on a higher professional level.

5. The Ministry of Education should plan carefully for the proper assignment of the graduates of special training programs. It is important to assign graduates to administrative and teaching roles that take full advantage of their training experiences.

6. School buildings should be designed to house the educational program rather than the existing practice of letting educational programs be negatively influenced by inappropriate facilities. The rented buildings are most inadequate, but even some of the buildings built as schools by the government are in great need of improvement.

7. Essential equipment such as heaters, air conditioners, and even student desks should be provided in all schools.

8. The school district should encourage interaction between teachers and principals. Principals should continue to evaluate the teachers, but the teachers should also evaluate the principals and both evaluations should be considered by the school districts.

9. Community involvement in school affairs should be encouraged.

10. Efforts should be directed to making non-Saudi teachers feel as though they belong. They should be assisted both in their adjustment to a different environment and in their traveling during summer vacations.

11. The teachers in girls' schools should be upgraded and encouraged to continue their studies while they are teaching.

12. Measures which should be considered to reduce the teacher shortage include:

(a) An increase in teacher salaries so as to motivate teachers and encourage administrators in the central organization to transfer to teaching positions.

(b) Consolidatien of very small schools into larger schools within the school district.

(c) Accurate projections of school enrollment to determine how many teachers are needed each year.

(d) Encouragement of Saudi teachers to teach in rural areas and provision of better facilities in the schools in rural areas.

(e) Consolidation of the schools of some of the villages into large educational centers to be located between the villages. Transportation would need to be provided for the children.

(f) Establishment of each new school on the basis of careful surveys of the areas where the school is needed.

13. Additional research directed to exploring the relationship between teachers and principals might provide more information about the organizational climates of schools in Saudi Arabia.

14. It is suggested that studies might be initiated to investigate the organizational climates of colleges and universities in Saudi Arabia.

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APPENDIX A

THE NUMBER OF SAUDI AND NON-SAUDI TEACHERS IN DIFFERENT EDUCATIONAL LEVELS

TABLE I

SAUDI AND NON-SAUDI TEACHERS AND ADMINISTRATORS IN DIFFERENT EDUCATIONAL LEVELS IN BOYS' EDUCATION

Educational Level	Teachers			Administrators			Total of Saudis	Total of Non-Saudis
	Saudis	Non-Saudis	Total	Saudis	Non-Saudis	Total		
Elementary Education	11,202	7,106	18,308	2,357	81	2,438	13,559	7,187
Intermediate Education	1,449	2,868	4,317	944	241	1,185	2,393	3,109
Secondary Education	173	922	1,095	266	71	337	439	993
Teacher Training Inst.	95	554	649	142	43	185	237	597
Technical and Special Education	405	444	749	163	103	266	569	447
Grand Total	13,324	11,794	25,118	3,872	539	4,411	17,196	12,333

TABLE II

SAUDI AND NON-SAUDI MEN AND WOMEN IN THE SCHOOLS SUPERVISED BY GENERAL ADMINISTRATION OF GIRLS' EDUCATION

	Saudi Men	Saudi Women	Total	Non-Saudi Women	Non-Saudi Men	Total	Total of Saudi and Non-Saudi
Administrators of the Presidency	734	-	734	-	84	84	818
School Health	1	19	20	52	107	69	89
Elementary Schools	-	5,338	5,338	3,684	-	3,684	9,022
Intermediate Schools	59	223	282	1,335	-	1,335	1,617
Secondary Schools	11	49	60	258	-	258	318
Teacher Training Institutes	19	44	63	213	-	313	376
Technical Supervision	-	40	40	199	-	199	239
Others*	19	4	23	114	1	115	138
Grand Total	843	5,717	6,560	5,955	192	6,057	12,617

*Others include training centers for sewing, Girls' Education College and its administration.

TABLE III

THE NUMBER AND PERCENTAGE OF NON-SAUDI TEACHERS IN ELEMENTARY, INTERMEDIATE, AND SECONDARY SCHOOLS NEEDED IN SCHOOL YEAR 1975-1976 FOR BOYS' SCHOOLS

Educational Level	Total of Non-Saudi Teachers in 1974-75	No. of Needed Non-Saudi Teachers in 1975-76	Percent of Non-Saudis Needed in 1975-76
Elementary Schools	7,170	1,088	15%
Intermediate Schools	3,187	460	14%
Secondary Schools	1,121	172	15%

APPENDIX B

THE NUMBER OF OWNED AND RENTED SCHOOL BUILDINGS

TABLE IV

THE NUMBER OF OWNED AND RENTED SCHOOL BUILDINGS IN ELEMENTARY AND INTERMEDIATE GIRLS' SCHOOLS IN 1972-1973*

Educational Level	Owned Governmental School Buildings	Rented Residential School Buildings	Percentage of Rented Buildings
Elementary Schools	56	483	89.6%
Intermediate Schools	14	21	60%

TABLE V

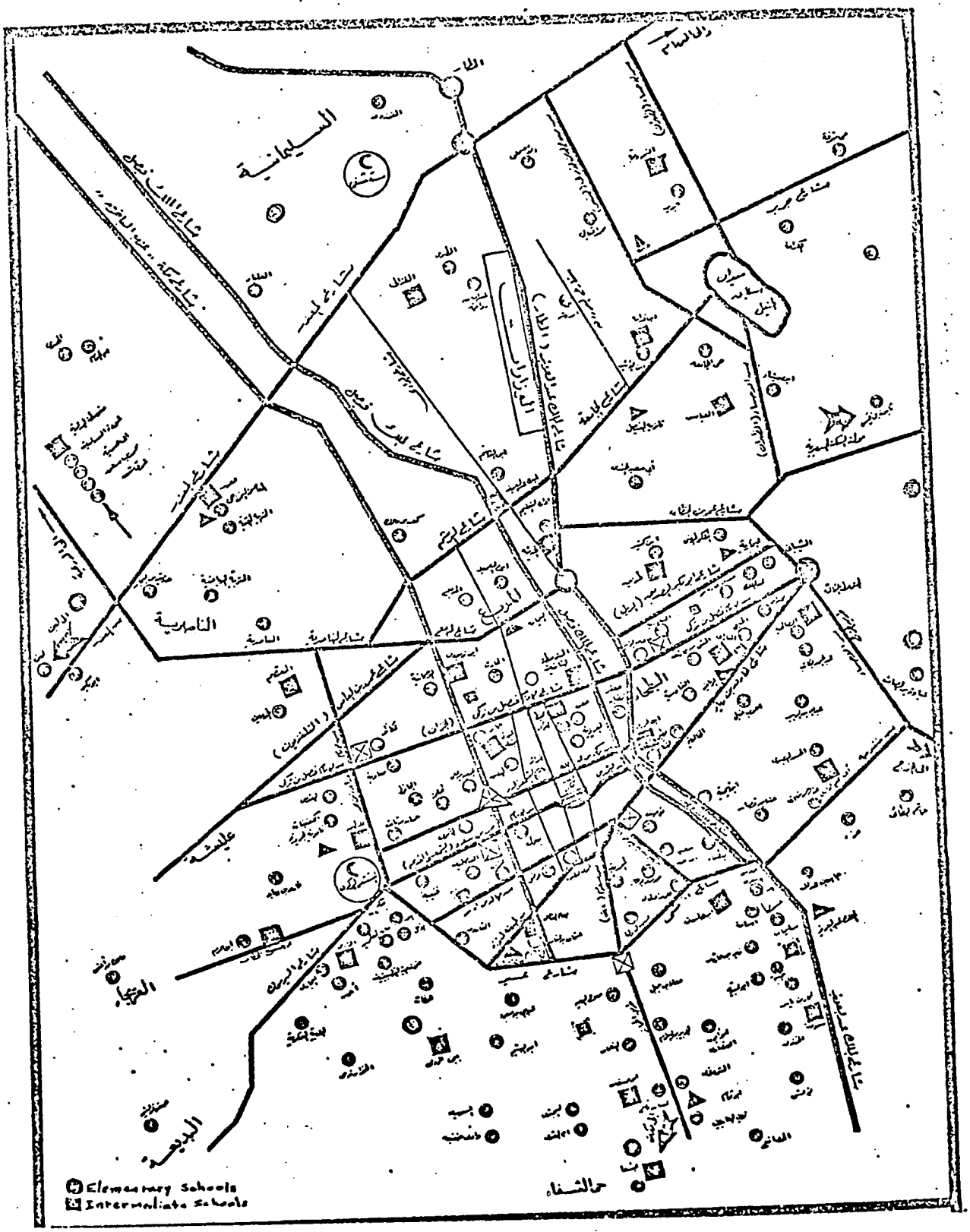
THE NUMBER OF OWNED AND RENTED SCHOOL BUILDINGS IN ELEMENTARY AND INTERMEDIATE BOYS' SCHOOLS IN RIYADH SCHOOL DISTRICT FOR 1973-1974

Educational Level	Owned Governmental School Buildings	Rented Residential School Buildings	Percentage of Rented Buildings
Elementary Schools	47	166	77.9%
Intermediate Schools	19	34	64.2%

*These numbers indicate all elementary and intermediate schools supervised by Girls' administration. In Riyadh school district, there are only 6 owned and 163 rented elementary school buildings.

APPENDIX C

THE MAP OF THE CITY OF RIYADH, WHERE THE BOYS' SCHOOLS ARE LOCATED


السليمانية
الناصرية
عليشة
البديعة
Elementary Schools
Intermediate Schools

APPENDIX D

ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE

Mohamed A. Manuie
College of Education
Riyadh, Saudi Arabia

Dear Teacher/Principal:[1]

I am presently preparing for my doctoral research in educational administration. The research is concerned about the teacher-principal perception of the Organizational Climate in selected schools in Riyadh, Saudi Arabia. The research is closely related to the interactions between teachers and principals.

There is no doubt that the education in our schools needs drastic changes and improvements for better quality of education all over the country. Such improvements depend largely upon teachers and principals as well as upon the administrators in central educational agencies.

Therefore, I hope that the teachers and principals in boys' and girls' schools cooperate in this aspect by answering all the items carefully with absolute frankness and objectivity. You do not need to write your name on the questionnaire. Your answer will be in strict confidence and no one will see it except the investigator himself.

I appreciate your cooperation and concern.

Sincerely yours,

Mohamed A. Manuie

---

[1]This letter was translated from Arabic.

ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE[1]

The items in this questionnaire describe typical behaviors or conditions that occur within a school organization. Please indicate to what extent each of these descriptions characterizes your school. Please do not evaluate the items in terms of "good" or "bad" behavior, but read each item carefully and respond in terms of how well the statement describes your school.

The purpose of this questionnaire is to secure a description of the different ways in which teachers behave and of the various conditions under which they work. The questionnaire will be examined to identify the behaviors or conditions that have been described as typical by the majority of the teachers in your school. From this examination, a portrait of the Organizational Climate of your school will be constructed.

---

[1]Permission was obtained from Macmillan Company. (See Appendix G.)

MARKING INSTRUCTIONS

Printed below is an example of a typical item found in the Organizational Climate Description Questionnaire:

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

SAMPLE:

Teachers call each other by their first names. 1 2 (3) 4

In this example the respondent circled alternative 3 to show that the inter-personal relationship described by this item "often occurs" at his school. Of course, any of the other alternatives could be selected, depending upon how often the behavior described by the item does, indeed, occur in your school.

Please mark your responses clearly, as in the example. PLEASE BE SURE THAT YOU MARK EVERY ITEM. CIRCLE the numeral which most nearly approximates the frequency of the behavior described...Authenticity of the response is very important. Do give the most accurate response that you can...Either a pencil or a pen may be used.

BIOGRAPHICAL INFORMATION

1. The name of your school _____

2. Location of your school _____

Please place a check mark to the right of the appropriate category.

3.	Position	Principal	1. _____
		Teacher	2. _____
4.	Your school is an elementary	Boys	1. _____
		Girls	2. _____
5.	Your school is an intermediate	[illegible]s	1. _____
		[illegible]rls	2. _____
6.	Sex	Man	1. _____
		Woman	2. _____
7.	Nationality	Saudi	1. _____
		Non-Saudi	2. _____
8.	Years of experience in education	0- 3	1. _____
		4- 9	2. _____
		10-19	3. _____
9.	Years at this school	0- 2	1. _____
		3- 6	2. _____
		7-10	3. _____
10.	In-Service training	None	1. _____
		0- 3 months	2. _____
		3-12 months	3. _____

THE OCDQ ITEMS

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

1.	Teachers' closest friends are other faculty members at this school.	1	2	3	4
2.	The mannerisms of teachers at this school are annoying.	1	2	3	4
3.	Teachers spend time after school with students who have individual problems.	1	2	3	4
4.	Instructions for the operation of teaching aids are available.	1	2	3	4
5.	Teachers invite other faculty to visit them at home.	1	2	3	4
6.	There is a minority group of teachers who always oppose the majority.	1	2	3	4
7.	Extra books are available for classroom use.	1	2	3	4
8.	Sufficient time is given to prepare administrative reports.	1	2	3	4
9.	Teachers know the family background of other faculty members.	1	2	3	4
10.	Teachers exert group pressure on non-conforming faculty members.	1	2	3	4
11.	In faculty meetings, there is a feeling of "let's get things done."	1	2	3	4
12.	Administrative paper work is burdensome at this school.	1	2	3	4
13.	Teachers talk about their personal life to other faculty members.	1	2	3	4
14.	Teachers seek special favors from the principal.	1	2	3	4
15.	School supplies are readily available for use in classwork.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

16.	Student progress reports require too much work.	1	2	3	4
17.	Teachers have fun socializing together during school time.	1	2	3	4
18.	Teachers interrupt other faculty members who are talking in staff meetings.	1	2	3	4
19.	Most of the teachers here accept the faults of their colleagues.	1	2	3	4
20.	Teachers have too many committee requirements.	1	2	3	4
21.	There is considerable laughter when teachers gather informally.	1	2	3	4
22.	Teachers ask nonsensical questions in faculty meetings.	1	2	3	4
23.	Custodial service is available when needed.	1	2	3	4
24.	Routine duties interfere with the job of teaching.	1	2	3	4
25.	Teachers prepare administrative reports by themselves.	1	2	3	4
26.	Teachers ramble when they talk in faculty meetings.	1	2	3	4
27.	Teachers at this school show much school spirit.	1	2	3	4
28.	The principal goes out of his way to help teachers.	1	2	3	4
29.	The principal helps teachers solve personal problems.	1	2	3	4
30.	Teachers at this school stay by themselves.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

31.	The teachers accomplish their work with great vim, vigor and pleasure.	1	2	3	4
32.	The principal sets an example by working hard himself.	1	2	3	4
33.	The principal does personal favors for teachers.	1	2	3	4
34.	Teachers eat lunch by themselves in their own classrooms.	1	2	3	4
35.	The morale of the teachers is high.	1	2	3	4
36.	The principal uses constructive criticism.	1	2	3	4
37.	The principal stays after school to help teachers finish their work.	1	2	3	4
38.	Teachers socialize together in small select groups.	1	2	3	4
39.	The principal makes all class-scheduling decisions.	1	2	3	4
40.	Teachers are contacted by the principal each day.	1	2	3	4
41.	The principal is well prepared when he speaks at school functions.	1	2	3	4
42.	The principal helps staff members settle minor differences.	1	2	3	4
43.	The principal schedules the work for the teachers.	1	2	3	4
44.	Teachers leave the grounds during the school day.	1	2	3	4
45.	The principal insures that teachers work to their full capacity.	1	2	3	4
46.	Teachers help select which courses will be taught.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

47.	The principal corrects teachers' mistakes.	1	2	3	4
48.	The principal talks a great deal.	1	2	3	4
49.	The principal explains his reasons for criticism to teachers.	1	2	3	4
50.	The principal tries to get better salaries for teachers.	1	2	3	4
51.	Extra duty for teachers is posted conspicuously.	1	2	3	4
52.	The rules set by the principal are never questioned.	1	2	3	4
53.	The principal looks out for the personal welfare of teachers.	1	2	3	4
54.	School secretarial service is available for teachers' use.	1	2	3	4
55.	The principal runs the faculty meeting like a business conference.	1	2	3	4
56.	The principal is in the building before teachers arrive.	1	2	3	4
57.	Teachers work together preparing administrative reports.	1	2	3	4
58.	Faculty meetings are organized according to a tight agenda.	1	2	3	4
59.	Faculty meetings are mainly principal-report meetings.	1	2	3	4
60.	The principal tells teachers of new ideas he has run across.	1	2	3	4
61.	Teachers talk about leaving the school system.	1	2	3	4
62.	The principal checks the subject-matter ability of teachers.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

63.	The principal is easy to understand	1	2	3	4
64.	Teachers are informed of the results of a supervisor's visit.	1	2	3	4

APPENDIX E

THE ITEMS THAT COMPOSE THE EIGHT SUBTESTS OF ORGANIZATIONAL CLIMATE

OCDQ, FORM IV--ITEMS THAT COMPOSE FOUR SUBTESTS:
TEACHERS' BEHAVIOR[1]

I. Disengagement

1.* The mannerisms of teachers at this school are annoying.
2. There is a minority group of teachers who always oppose the majority.
3. Teachers exert group pressure on nonconforming faculty members.
4. Teachers seek special favors from the principal.
5. Teachers interrupt other faculty members who are talking in staff meetings.
6. Teachers ask nonsensical questions in faculty meetings.
7. Teachers ramble when they talk in faculty meetings.
8. Teachers at this school stay by themselves.
9. Teachers talk about leaving the school system.
10. Teachers socialize together in small select groups.

II. Hindrance

11. Routine duties interfere with the job of teaching.
12. Teachers have too many committee requirements.
13. Student progress reports require too much work.
14. Administrative paper work is burdensome at this school.
15. Sufficient time is given to prepare administrative reports.**
16. Instructions for the operation of teaching aids are available.**

III. Esprit

17. The morale of the teachers is high.
18. The teachers accomplish their work with great vim, vigor, and pleasure.
19. Teachers at this school show much school spirit.
20. Custodial service is available when needed.
21. Most of the teachers here accept the faults of their colleagues.
22. School supplies are readily available for use in classwork.
23. There is considerable laughter when teachers gather informally.
24. In faculty meetings, there is the feeling of "let's get things done."
25. Extra books are available for classroom use.

---

[1]Andrew W. Halpin, Theory and Research in Administration, (New York: The Macmillan Company, 1966), p. 152-153.

26. Teachers spend time after school with students who have individual problems.

IV. Intimacy

27. Teachers' closest friends are other faculty members at this school.
28. Teachers invite other faculty members to visit them at home.
29. Teachers know the family background of other faculty members.
30. Teachers talk about their personal life to other faculty members.
31. Teachers have fun socializing together during school time.
32. Teachers work together preparing administrative reports.
33. Teachers prepare administrative reports by themselves.**

---

*These numbers are used solely to list the items here by subtest. The numbers do not correspond to the sequence in which the items actually appear in Form IV.

**Scored negatively.

OCDQ, FORM IV--ITEMS THAT COMPOSE FOUR SUBTESTS: PRINCIPAL'S BEHAVIOR[1]

V. Aloofness

34.* Faculty meetings are organized according to a tight agenda.
35. Faculty meetings are mainly principal-report meetings.
36. The principal runs the faculty meeting like a business conference.
37. Teachers leave the grounds during the school day.
38. Teachers eat lunch by themselves in their own classrooms.
39. The rules set by the principal are never questioned.
40. Teachers are contacted by the principal each day.
41. School secretarial service is available for teachers' use.**
42. Teachers are informed of the results of a supervisor's visit.**

VI. Production Emphasis

43. The principal makes all class scheduling decisions.
44. The principal schedules the work for the teachers.
45. The principal checks the subject-matter ability of teachers.
46. The principal corrects teachers' mistakes.
47. The principal insures that teachers work to their full capacity.
48. Extra duty for teachers is posted conspicuously.
49. The principal talks a great deal.

VII. Thrust

50. The principal goes out of his way to help teachers.
51. The principal sets an example by working hard himself.
52. The principal uses constructive criticism.
53. The principal is well prepared when he speaks at school functions.
54. The principal explains his reasons for criticism to teachers.
55. The principal looks out for the personal welfare of teachers.
56. The principal is in the building before teachers arrive.
57. The principal tells teachers of new ideas he has run across.
58. The principal is easy to understand.

---

[1] Ibid., pp. 153-154.

VIII. Consideration

59. The principal helps teachers solve personal problems.
60. The principal does personal favors for teachers.
61. The principal stays after school to help teachers finish their work.
62. The principal helps staff members settle minor differences.
63. Teachers help select which courses will be taught.
64. The principal tries to get better salaries for teachers.

---

*These numbers are used solely to list the items here by subtest. The numbers do not correspond to the sequence in which the items actually appear in Form IV.

**Scored negatively.

APPENDIX F

THE DEFINITION OF THE SIX CLIMATES

The six types of Organizational Climate placed on continuum were defined as follows:[1]

1. The open climate describes an energetic, lively organization which is moving toward its goals, and which provides satisfaction for the group members' social needs. Leadership acts emerge easily and appropriately from both the group and the leader. The members are preoccupied disproportionately with neither task achievement nor social-needs satisfaction; satisfaction on both counts seems to be obtained easily and almost effortlessly. The main characteristic of this climate is the "authenticity" of the behavior that occurs among all members.

2. The autonomous climate is described as one in which leadership acts emerge primarily from the group. The leader exerts little control over the group members; high esprit results primarily from social-needs satisfaction. Satisfaction from task-achievement is also present, but to a lesser degree.

3. The controlled climate is characterized best as impersonal and highly task-oriented. The group's behavior is directed toward task-accomplishment, while relatively little attention is given to behavior oriented to social-needs satistion. Esprit is fairly high, but it reflects achievement at some expense to social-needs satisfaction. This climate lacks openness, or "authenticity" of behavior, because the group is disproportionately preoccupied with task achievement.

4. The familiar climate is highly personal, but uncontrolled. The members of this organization satisfy their social needs, but pay relatively little attention to social control in respect to task accomplishment. Accordingly, esprit is not extremely high simply because the group members secure little satisfaction from task achievement. Hence, much of the behavior within this climate can be construed as "inauthentic."

5. The paternal climate is characterized best as one in which the principal constrains the emergence of leadership acts from the group and attempts to initiate most of the acts himself. The leadership skills within the group are not

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[1]Andrew W. Halpin and Don B. Croft, "The Organizational Climate of Schools," Administrator's Notebook, Vol. II, March 1963, pp. 1-4.

used to supplement the principal's own ability to initiate leadership acts. Accordingly, some leadership acts are not even attempted. In short, little satisfaction is obtained in respect to either achievement or social needs; hence, esprit among the members is low.

6. The closed climate is characterized by a high degree of apathy on the part of all members of the organization. The organization is not "moving"; esprit is low because the group members secure neither social-needs satisfaction nor the satisfaction that comes from task achievement. The members' behavior can be construed as "inauthentic"; indeed, the organization seems to be stagnant.

APPENDIX G

PERMISSION FOR USING THE OCDQ

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