DOCUMENT RESUME

ED 054 240 24 UD 011 714

AUTHOR Madden, John B.
TITLE Student Achievement in Language Arts and the Organizational Climate of Schools. Final Report.
INSTITUTION Missouri Univ., Columbia. Center for Educational Improvement.
SPONS AGENCY Office of Education (DHEW), Washington, D.C. Bureau of Research.
BUREAU NO BR-0-F-063
PUB DATE May 71
GRANT OEG-6-70-0036(509)
NOTE 124p.

EDRS PRICE EDRS Price MF-$0.65 HC-$6.58
DESCRIPTORS *Academic Achievement, Data Analysis, *Disadvantaged Youth, Elementary School Students, *Language Arts, Negro Students, *Organizational Climate, Research Methodology, Sex Differences
IDENTIFIERS Kansas City, Missouri, Missouri University

ABSTRACT

The purpose of this study was to supplement the knowledge available in the field of educational administration relative to the effects of open and closed organizational climates on pupil language arts achievement by disadvantaged pupils in inner-city elementary schools. The study was undertaken in 16 elementary schools in Kansas City, Missouri. In the report of the study, the related literature is reviewed, the methodology employed is described, and the analysis of the data presented. At the end, it is concluded that "when the effects of intelligence of disadvantaged grade 6 pupils are controlled, open and closed organizational climates appear to have no effect on achievement; however, when the same effects of intelligence are controlled, there are significant differences in the interactive effects between organizational climate and sex." (Author/JW)

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A portion of the research reported herein was performed pursuant to a grant from the U.S. Office of Education, Department of Health, Education, and Welfare. Grant Number OEG-6-70-0036 (509). The opinions expressed herein, however, do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Recent research into organizational theory and practice has isolated the variable of "climate," a previously seemingly intangible all-pervading characteristic, as a factor that distinguishes one type of institution from another. Researching this construct further, Halpin and Croft developed the instrument, The Organizational Climate Description Questionnaire (OCDQ) which classifies organizations along a continuum ranging from Open to Closed Organizational Climates.[1]

Motivated by four criteria: (1) a "feel" that there was a difference between schools; (2) a dissatisfaction with the concept of morale; (3) a conviction that the Leader Behavior Description Questionnaire (LBDQ) needed to be supplemented by related information about an organization itself; and (4) an interest in all types of organizations, Halpin and Croft initiated their search for variables and concepts which could be used to construct the OCDQ.[2]

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[1]Andrew W. Halpin and Don B. Croft, Organizational Climate of Schools, (Chicago: Midwest Administration Center, University of Chicago, 1963), p. 4.

[2]Andrew W. Halpin, Theory and Research in

While not only applicable to schools the OCDQ did, however, evolve from research using seventy-one elementary schools in different regions of the United States.[3] This occurred through fortuitous circumstances[4] and has had a quantitative impact upon research related to educational administrative theory.

> Since all administrative behavior takes place in a situation, the lack of proper instrumentation has made the measurement of situations impossible. The OCDQ is a step towards remedying this problem. The OCDQ has had a reception similar to that enjoyed by the LBDQ. Brown (1967) estimated that it has been used in at least 100 studies. The studies are empirical and are generally correlational in nature.[5]
>
> The OCDQ makes it possible to identify and describe six Organizational Climates, the "Open," the "Autonomous," the "Controlled," the "Familiar," the "Paternal," and the "Closed."[6]

Because the open and closed organizational climates fall at the opposite extremes of the continuum their climates will differ the most. Through the use of the Halpin-Croft instrument, it is now possible to categorize elementary schools independently within a school system

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Administration (New York: The Macmillan Company, 1966), pp. 131-132.

[3]Ibid., p. 132.

[4]Ibid.

[5]Daniel E. Griffiths, "Administrative Theory," Encyclopedia of Educational Research (fourth edition; New York: The Macmillan Company, 1969), p. 21.

[6]Halpin, op. cit., p. 135.

with respect to organizational climate and to look at these schools in an evaluative way in terms of other variables. For example, having classified a sample of elementary schools in an inner-city area into the two opposing climate-groups of "open" and "closed," one can be concerned with how students achieve in language arts. The relationship between the type of climate and achievement in language arts, especially children from inner-city areas, has important implications for education. If achievement does differ in some significant way between students in open and closed schools, then this information becomes important for administrators and teachers alike. This study, therefore, analyzes student achievement in language arts as measured by the Iowa Tests of Basic Skills in the context of the most open and closed school climate as classified by the OCDQ.

Statement of the Problem

Adequate achievement in the basic skills of language arts is a major concern to educators since a lack of facility in the use of language, both oral and written, appears to have a detrimental affect on other achievement. Schools, each having its own organizational climate, provide the environment wherein students learn some, if not most of, the basic skills in language. The organizational climate thus becomes a critical educational

factor due to its influence upon the learning environment.

The pupil of an inner-city elementary school has certain disadvantages. His environment poses, in many instances, insurmountable problems.[7] In a sense his home learning experiences are of a deprived nature, and the school he attends is his only hope of gaining the adequate and basic skills in language which may assure him of upward socio-economic mobility.[8]

Schools differ in organizational climate and if as Halpin observes, "the members of schools with closed climates are not sinners to be castigated but victims to be helped,"[9] we may assume that the closed climate school is not the type of school which can offer the ultimate learning experiences for the pupils.

Questions arising from these assumptions about the effects of organizational climate upon learning, together with the need for more research specific to language arts achievement by underprivileged pupils, formed the basis for delineating the problem with which

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[7]Eleanor P. Wolf and Leo Wolf, "Sociological Perspective on the Education of the Culturally Deprived Child," The School Review (Winter, 1962), p. 876.

[8]Frederick Shaw, "Educating Culturally Deprived Youth in Urban Centers," Phi Delta Kappan, (November, 1963), p. 95.

[9]Halpin, op. cit., p. 137.

this study was concerned.

The Purpose

The purpose of this study was to supplement and complement the knowledge already available in the field of educational administration relative to the effects of open and closed organizational climates on pupil language arts achievement by disadvantaged pupils in inner-city elementary schools.

Specifically, the following questions were considered:

1. Is there an achievement difference in overall language arts as measured by the Iowa Tests of Basic Skills between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate?
2. Is there an achievement difference in overall language arts as measured by the Iowa Tests of Basic Skills between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils?
3. Is there any interaction between sex and organizational climate when considering the overall language arts achievement of disadvantaged grade 6 pupils?

4. Is there any achievement difference in vocabulary as measured by the Iowa Tests of Basic Skills between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate?
5. Is there an achievement difference in vocabulary as measured by the Iowa Tests of Basic Skills between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils?
6. Is there any interaction between sex and organizational climate when considering the vocabulary skills achievement of disadvantaged grade 6 pupils?
7. Is there an achievement difference in reading as measured by the Iowa Tests of Basic Skills between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate?
8. Is there an achievement difference in reading as measured by the Iowa Tests of Basic Skills between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils?
9. Is there any interaction between sex and organizational climate when considering the

reading skills achievement of disadvantaged grade 6 pupils?

10. Is there an achievement difference in the mechanics of correct writing as measured by the Iowa Tests of Basic Skills between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate?

11. Is there an achievement difference in the mechanics of correct writing as measured by the Iowa Tests of Basic Skills between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils?

12. Is there any interaction effects between sex and organizational climate when considering the mechanics of correct writing achievement of disadvantaged grade 6 pupils?

Need for the Study

The rush to suburbia by the more affluent Americans has left the inner-city areas to the less affluent, many of whom are underprivileged socially and economically. The schools that serve these areas must change, perhaps more rapidly, to meet the needs of the "different" student. Norma Radin isolates numerous factors which appear to be impeding the effectiveness of schools to

cater to children from the lower socio-economic class in inner-city areas. While advocating that no one remedy will be sufficient to improve the plight of the disadvantaged child, she emphasizes that the education system has some control over how a school is organized. From the foregoing one can imply that the organizational climate of a school may have some bearing on the effectiveness of instruction in schools and thus student achievement.[10]

Many school administrators are reluctant to have their schools classified by the OCDQ. Robert G. Owens explains this succinctly when he observes:

> . . . a climate study is an evaluation of the school, and--more particularly--of the teachers and principal in it. The implication is highly unfortunate, for it emphasizes a sort of test syndrome with all the usual anxieties about not doing well. After all what does it mean if one finds that the organizational climate of one's school is "closed" . . . Today amid all the criticism of schools, not every administrator is anxious to generate still more data to be used against him and his school; the reading scores are probably already low enough and the dropout rate too high. Who needs more?[11]

Too, Halpin observes:

> . . . the possibility that the climate profiles may indeed constitute a better criterion of a school's effectiveness than many measures that have

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[10]Norma Radin, Factors Impeding the Education of Lower-Class Children, (Ypsilanti Public Schools, Ypsilanti, Michigan, 1967).

[11]Robert G. Owens, Organizational Behavior in Schools (Eaglewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970), p. 190.

already entered the field of education administration.[12]

Despite the fact that Halpin implies that an open climate is good and a closed climate is bad, he sounds a note of warning that:

> . . . it is possible that some schools in urban-core areas cannot afford to contend with an "open" organizational climate. The situation is similar to that of some neurotics who, despite their unhealthy symptoms, manage to cope with their world, even at a low and precarious level of effectiveness.[13]

If the effectiveness of schools is being impaired by the type of organizational climate that exists, may it not be educationally and administratively expedient to do something to remedy the situation? Halpin, further expounds his thesis to imply that if a series of circumstances would make it traumatically difficult to change the organizational climate of a school, then it may be wiser "to cross off some schools as expendable."[14] He realizes this to be a shocking statement but he feels that for the welfare of some inner-city areas it may be better to do just this.

Objections have been raised about the OCDQ because

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[12]Halpin and Croft, op. cit., p. 83.

[13]Andrew W. Halpin, "Change and Organizational Climate," Ontario Journal of Educational Research, VIII, No. 3, (Spring, 1966), p. 235.

[14]Ibid.

its six "climate-types" are arbitrary or because principals' perceptions expressed through it tend to be significantly different from the perceptions of teachers in the same school. However, it would appear that despite its shortcomings as a "perfect" instrument, it "will provide useful feedback information to the administrator with a grasp of its limitations."[15] One specific feedback might well be how disadvantaged children achieve in language skills in the two opposing climates. Language arts achievement is admittedly only one measurable skill, but its importance to overall achievement is widely recognized.[16]

Steinhoff and Owens maintain that longer-term efforts to create certain fundamental psychological and environmental conditions in schools are necessary to raise achievement to disadvantaged children. They reached this conclusion after studying the organizational climates of the more effective schools.[17] If, as they suggest, there is a need to re-organize more effective schools to

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[15] Owens, op. cit., p. 184.

[16] E. F. Lindquist and A. N. Hieronymus, Teacher's Manual, Iowa Tests of Basic Skills (New York: Houghton Mifflin Company, 1964), p. 3.

[17] C. Steinhoff and Robert G. Owens, "Organizational Climate in the More Effective Schools." (A paper presented at ERANYS, Albany, New York, Center for Urban Education, 1966), p. 128.

increase achievement, then there is certainly a need to analyze the effectiveness of inner-city schools, by ascertaining if climate has a significant bearing on achievement.

One may assert that the disadvantaged child has received much attention during the last decade. His education is of concern and the literature on educating the disadvantaged child frequently calls schools to task for failure to provide the appropriate educational experiences for him.[18]

Hamburger, in accepting the generally agreed upon assertion that American schools reflect middle-class values, found that the disadvantaged child, when confronted by the school, tends to withdraw and look for security in his lower-class world, and that it is only when his values are aligned with middle-class values can achievement occur.[19] Since it is not always possible for the disadvantaged child to accept the middle-class values of the school, his achievement therefore must necessarily suffer. This is particularly true with values relating

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[18]Irving A. Yevish, "Decentralization, Discipline, and the Disadvantaged Teacher," Phi Delta Kappan, L, (November, 1968).

[19]Martin Hamburger, "The Impact of Socially Disadvantaged Status on School Learning and Adjustment," ERIC #ED 08 259, (February, 1968), p. 100.

to language proficiency. C. E. Massard found that the values the school placed upon language required the disadvantaged child to use a "public language" in school, but he valued his "private language" and used it at home. He also asserts that pupils from different class levels use different processes in thinking about language.[20] His former finding suggests that the disadvantaged child experiences conflict and this conflict, allied with his different thought processes, has an adverse effect on language as well as measured language achievement.

Mary Love reinforces Massard's contentions when she states that the differing language patterns of the alienated poor create a barrier between the child and the social institution.[21]

With such evidence used as a guide, it would appear that the type of climate prevailing in an organization such as the school might well be investigated to determine whether climate, in fact, has an effect upon the language skills of disadvantaged pupils.

A Direct Access to Reference Information (DATRIX)

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[20] C. E. Massard, "A Comparative Study of Language Aptitude and Intelligence on Sixth Grade Children from Low Socio-economic and Middle Socio-economic Levels." (A paper presented at the Annual meeting of the American Education Research Association, March, 1968).

[21] Mary B. Love, "The Alienated Speak," Educational Leadership, XXIV, (1967), pp. 589-594.

search was made at the Xerox Company (see Appendix A) at Ann Arbor, Michigan, on the subject of this study and it produced no references. It may be tentatively concluded, therefore, that research of the specific nature investigated in this study has not been done.

Limitation of the Study

The validity of this study was limited by the degree to which past educational experiences affected the language arts achievement of disadvantaged grade 6 pupils.

Scope of the Study

This study was limited to those inner-city elementary schools within the Kansas City, Missouri, Public School System which were classified as open or closed by the Organizational Climate Description Questionnaire (OCDQ) and to a random sample of the grade 6 pupils therein.

Assumptions

It was assumed that the Organizational Climate Description Questionnaire (OCDQ) is a valid and reliable instrument for classifying the organizational climate of elementary schools.

It was assumed that the Iowa Tests of Basic Skills in language arts is a valid and reliable instrument for measuring pupil achievement in language arts.

It was assumed that the Kansas City elementary schools utilized in this study are representative and characteristic of inner-city elementary schools throughout the United States which cater to the educational needs of disadvantaged children.

It is assumed that the quality, level, and quantity of instruction given by grade 6 teachers in the inner-city elementary schools is similar irrespective of whether a school has an open or closed organizational climate.

And, finally, it was assumed that the grade 6 pupils selected for this study are representative and characteristic of other disadvantaged grade 6 pupils attending elementary schools in inner-city areas throughout the United States.

Research Hypotheses

The following hypotheses were considered in this study:

1. Disadvantaged grade 6 pupils' achievement in overall language arts skills differs significantly between schools characterized by an open or closed organizational climate.
2. Disadvantaged grade 6 pupils' achievement in overall language arts skills differs significantly between male pupils and female pupils.

3. There is no interaction between sex and organizational climate when considering overall language arts achievement of disadvantaged grade 6 pupils.
4. Disadvantaged grade 6 pupils' achievement in vocabulary skills differs significantly between schools characterized by an open or closed organizational climate.
5. Disadvantaged grade 6 pupils' achievement in vocabulary skills differs significantly between male pupils and female pupils.
6. There is no interaction between sex and organizational climate when considering vocabulary skills achievement of disadvantaged grade 6 pupils.
7. Disadvantaged grade 6 pupils' achievement in reading skills differs significantly between schools characterized by an open or closed organizational climate.
8. Disadvantaged grade 6 pupils' achievement in reading skills differs significantly between male pupils and female pupils.
9. There is no interaction between sex and organizational climate when considering reading achievement of disadvantaged grade 6 pupils.

10. Disadvantaged grade 6 pupils' achievement in the mechanics of correct writing differs significantly between schools characterized by an open or closed organizational climate.
11. Disadvantaged grade 6 pupils' achievement in the mechanics of correct writing differs significantly between male pupils and female pupils.
12. There is no interaction between sex and organizational climate when considering the mechanics of correct writing achievement of disadvantaged grade 6 pupils.

Definition of Terms

Achievement. The score obtained in a basic skill including overall language arts, vocabulary, reading and the mechanics of correct writing represented as a numerical measure resulting from the administration and scoring of the Iowa Tests of Basic Skills in language arts.

Disadvantaged Students. The children who show evidence of social, cultural, and economic deprivation in comparison with other children and who attend the six schools selected as a sample for this study.

Inner-City Schools. Those schools nearer the core of Kansas City, Missouri, which provide the formal educational experiences for the children who reside usually in

sub-standard housing and whose parents or guardians generally come from the lower socio-economic stratum of society.

Organizational Climate. The "atmosphere" or environment of an organization or institution which, although relatively intangible, is comparable to "feel" or "personality."[22] In a general sense it refers to prevailing characteristics of an organization's environment. Specifically, that which is measured by the Organizational Climate Description Questionnaire (OCDQ).

Open Climate. Elementary schools used for this study which scored highest on openness after the administration of the Organizational Climate Description Questionnaire (OCDQ).

Closed Climate. Elementary schools used for this study which scored highest on closedness after the administration of the Organizational Climate Description Questionnaire (OCDQ).

Language Arts. The fusion of many language skills into one broad field in which the related phases of expressive and receptive communication are taught in relationship.[23] For this study the related skills were vocabulary,

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[22]Robert G. Owens, op. cit., p. 167.

[23]Harold G. Shane, June Grant Mulry, Mary E. Redin, and Margaret C. Gillespie, Improving Language Arts Instruction (Columbus, Ohio: Charles E. Merrill, 1962), p. 24.

reading and the mechanics of correct writing.

Organization of the Study

Chapter I was designed to introduce the study. It includes a statement of the problem, the purpose of the study, the need for the study, the limitation of the study, the scope of the study, the assumptions underlying the study, the research hypotheses, the definition of terms, and the organization of the study.

Chapter II was designed to review the related literature on the organizational climate of schools and the language arts achievement of disadvantaged elementary school pupils, thus providing the rationale for this study.

Chapter III was designed to present the methodology employed in this investigation. It includes sections on the source of the data, the collection of the data, the instruments used, and how the data were analyzed.

Chapter IV was designed to report in detail the analysis of the data. It includes sections on the identification and designation of the organizational climates with relevant tables; it states the research hypotheses in the null form; and reports in the appropriate tables, the two-way analyses of covariance.

Chapter V was designed to report the findings in more detail; to list the conclusions warranted from the findings; and to make recommendations for further study.

CHAPTER II

REVIEW OF RELATED LITERATURE

Concern about administrative theory in education is a recent development for it was not until 1953 when a group of eighteen authors, with Roald F. Campbell and Russell T. Greg as co-editors, began work on a program sponsored by the National Conference of Professors of Educational Administration (NCPEA), that a lack of theory of administration was discovered. It became evident that the lack of theory had produced wide gaps in research knowledge on administrative behavior.[24]

Halpin explained why this state of affairs existed when he observed:

> In some areas the period of transition from sheer empiricism to hypothetico-deductive theory has had to be reckoned in centuries, not decades. Since the social sciences as disciplines distinct from social philosophy did not emerge until the end of the nineteenth century, we need not feel embarrassed by the present dearth of theory. Administration as a field for scientific study is of much more recent origin.[25]

Before 1950, with unusual exceptions, little research in educational administration dealt with testing of theoretical propositions and virtually none of it

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[24]Andrew W. Halpin, Administrative Theory in Education (Chicago: The Midwest Administration Center, University of Chicago, 1958), p. xii.

[25]Ibid.

involved the insights and research methods that had been developed by behavioral scientists.[26]

The reason for this state of affairs and the fact there is currently a great deal of research being undertaken in educational administration is explained by Van Miller as follows:

> A lot of the study of administration has been a matter of looking backward or sideways at what was done and what is being done. It is striking to contemplate how much administrative experience has been exchanged and how little it has been studied scientifically. The current excitement arises from the fact that within recent years educational administration has become a field of study and of development as well as a vocation.[27]

Historically, World War II provided the initial impetus to the study of administration, especially with respect to leadership. The quality of educational leadership as an area of research became a concern not only to the National Conference of Professors of Educational Administration, which was formed in 1947, but also to the American Association of School Administrators and the Kellog Foundation.

Owens sets the date for the significant breakthrough in educational administration to be 1950 when

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[26]Owens, op. cit., p. 16.

[27]Van Miller, The Public Administration of American School System (New York: The Macmillan Company, 1965), pp. 544-545.

the Co-operative Program in Educational Administration was launched.[28] In the mid 1960's he further observed:

> . . . it seemed probable that education--far from being outside the mainstream of discovery in administration--was taking the lead in making new discoveries about administration through research.[29]

Thus, commencing with research into leadership behavior, educational administration has investigated the organizations and institutions and the behavior that occurs therein. This is understandable, for a leader's professional invironment may be conceived as an organization, "and to a considerable extent, it is the setting in which he makes decisions, exercises leadership and generally behaves as a leader."[30]

Systems theorists in education looked at schools as social systems. They saw the behavior of the individual within a social system as a function of the interaction between his personality and the role expected of him by the institution.

Possibly the Getzels-Guba model led to as much research a decade ago as is being done currently with the Halpin-Croft Organizational Climate Description Questionnaire (OCDQ).

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[28] Owens, op. cit., p. 19.

[29] Ibid., p. 22.

[30] Ibid., p. 45.

Griffiths explains why studies using the Getzels-Guba model have fallen off sharply as follows:

> It would appear that the model is due for a revision which would incorporate the research of the past 17 years. The model served the purpose well of moving research in educational administration away from naked empiricism towards theory. The fact that the model encompases such a narrow range of organizational behavior was a strength when it was conceived, but the narrowness is now a weakness.[31]

Leadership theory has been purposely left until now. This line of inquiry, initiated by the Personnel Research Board of Ohio State University, led to the development of the Leader Behavior Description Questionnaire (LBDQ) by John K. Hemphill and Alvin E. Coons.[32] This was the instrument with which Halpin and Croft became dissatisfied and which hastened the development of the Organizational Climate Description Questionnaire (OCDQ).

According to Griffiths the Leader Behavior Description Questionnaire (LBDQ) proved extremely popular as an instrument because:

> . . . (it had) an ease of administration. Copies can be purchased, the reliability is substantial, and the two factors, consideration and initiating structure are well known.[33]

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[31]Daniel E. Griffiths, "Administrative Theory," Encyclopedia of Educational Research (fourth edition; New York: The Macmillan Company, 1969), p. 18.

[32]Owens, op. cit., p. 121.

[33]Griffiths, op. cit., p. 18.

This instrument has more recently been subjected to severe criticism and one of the severest critics has been Hemphill himself who, with others, studied initiating structure and consideration, along with a large number of other measures. These were then correlated with behavior in simulated situations and found to be virtually irrelevant.[34]

From this finding Griffiths wondered whether the large number of studies done with the Leader Behavior Description Questionnaire (LBDQ) were worth the effort.[35]

From the foregoing review one may conjecture that administrative theory in education is "unhealthy." Nothing is farther from the truth because the ferment that exists is proof that researchers are determined to add to the already significant theory that has been formulated.

Writing some years ago, Halpin summed up the existing state of theory in educational administration, and his observations are still relevant today:

> We need to develop theory in the field of administration. We are not quite sure how to go about this, but here are a few suggestions. Here are different ways in which we are trying to formulate theory in this field. Here are some issues which

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[34]John K. Hemphill and others, Administrative Performance and Personality (Teachers' College, Columbia University, 1962).

[35]Griffiths, op. cit., p. 18.

we feel must be taken in account and some dead ends we had better watch out for.[36]

Recent research supports the view that organizational behavior, in a general way, can be seen as the function of a dynamic interrelationship between the needs of the individual person and the needs of the organization as they are expressed by demands on the individual. Getzels and Guba would advocate a school situation where needs-demands congruence was desirable.[37] Chris Argyris would contend that complete congruence, though possibly desirable, was impossible. There would be conflict but ways should be found to manage it.[38]

Then again, Etzioni would contend that the "fit" between individual needs and organizational demands attracts individuals and keeps them involved.[39]

These three men were looking at relationships between individuals and an institution in a formal sense and represent but one half of the picture. Informal relationships constitute the other half.

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[36]Halpin, op. cit., pp. xii-xiii.

[37]Jacob W. Getzels and Egon G. Guba, "Social Behavior and the Administrative Process," School Review, LXV, (Winter, 1957), pp. 423-441.

[38]Chris Argyris, Personality and Organization: The Conflict Between the System and the Individual (New York: Harper and Row, 1957).

[39]Amitai Etzioni, A Comparative Analysis of

This latter domain was investigated by Whyte,[40] not in schools but in restaurants, and by Willower and Jones[41] in a junior high school. These studies focused on the interpersonal relationships between members of the organization.

Owens describes this type of investigation in the following terms:

> Such research deals with complexities of behavior arising from essential facts of organizational life; the individual finds himself in an interlocking dynamic interplay between his own needs and the demands of the organization.[42]

The descriptive research referred to above can only be an aid to understanding the "personality" of a school. A normative base is necessary if one wishes to compare one school's description with another. Too, such descriptions tend to be generalized, rather than dealing with comparative data from which norms might be developed for judging whether a school is "high" or "low" in the quality of its organizational "personality" or climate.

Complex Organizations (New York, The Free Press, 1961).

[40]William Foote Whyte, "The Social Structure of the Restaurant," American Journal of Sociology, LIV, (January, 1949), pp. 302-308.

[41]Donald J. Willower and Ronald G. Jones, "When Pupil Control Becomes an Institutional Theme," Phi Delta Kappan, XLV, (November, 1963), pp. 107-109.

[42]Owens, op. cit., p. 172.

Contributions to research on organizational climate provide us with the two necessary tools to determine more accurately how schools stand in comparison with others. One of these is the dimensions along which we may take measurements of certain factors which make up the climate of an organization's environment; the other is the normative data from many schools.[43]

From here it appeared a natural and sequential step for Halpin and Croft to develop their Organizational Climate Description Questionnaire (OCDQ), for administrative theory pertinent to organizational behavior appeared to have become sophisticated enough to generate further research.

While many scholars and students in educational administration have heeded Halpin's suggestion and used the OCDQ in their studies, few up to the present have looked at achievement in relation to schools with open or closed climates,[44] and none, as far as can be ascertained, have looked specifically at the disadvantaged pupil.

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[43] Ibid., p. 173.

[44] Joseph T. Flagg, Jr., "The Organizational Climate of Schools; Its Relationship to Pupil Achievement, Size of School and Teacher Turnover," (unpublished Doctoral Dissertation, Rutgers, The State University, New Brunswick, New Jersey, 1964).

An interesting research undertaking by Feldvebel which sought to investigate whether the output of the school, as measured by standard achievement tests, was a function of organizational climate, as well as the socio-economic status of the school community, showed that achievement and socio-economic status were significantly related. This study did not, however, produce conclusive findings relevant to the organizational climate variable.[45]

J. Foster Williams found and reported that the OCDQ has validity as a criterion of school effectiveness. He reported as follows:

> If, as Halpin has contended, the openness of schools' organizational climate is a possible criterion of a school's operational effectiveness, the findings indicate that negro schools possibly have been less effective as a group than white schools.[46]

If this is indeed so, then effective achievement in language arts as part of the overall effectiveness of schools may depend on organizational climate.

Too, mindful of Halpin's assertion, Null reported these significant results:

> . . . teachers with a good attitude towards children tended to perceive all eight dimensions

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[45]Alexander Feldvebel, "Organizational Climate, Social Class, and Educational Output," Administrator's Notebook, XII, No. 8, (April, 1964).

[46]J. Foster Williams, "The OCDQ: An Application of Some Implications," Education Administration Quarterly, IV, No. 2, (Spring, 1958), p. 54.

in a way indicative of an open climate, while teachers with a poor attitude towards children tended to perceive all eight dimensions in a manner indicative of a closed climate.[47]

While none of the studies reported in this investigation have dealt specifically with organizational climate and achievement in language arts by disadvantaged pupils, there appears from the foregoing, to be some evidence to support a view that school effectiveness may correlate positively with openness in a school's climate.

Effectiveness in language arts then may relate to the organizational climate of a school. However, the search of the literature did not reveal any studies directly related to the topic proposed in this study.

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[47]Eldon J. Null, "The Relationships Between the Organizational Climate of a School," (unpublished Ph. D. Thesis, University of Minnesota, 1965).

CHAPTER III

METHODOLOGY

To accomplish the purpose of this study it was necessary to: (1) identify three inner-city elementary schools possessing an open organizational climate and three inner-city elementary schools possessing a closed organizational climate; (2) randomly select equal numbers of male and female grade 6 pupils from both open and closed organizational climated schools; and (3) compare pupil achievement in language arts as measured by the Iowa Tests of Basic Skills to determine the effect organizational climate had upon disadvantaged grade 6 pupils' achievement in overall language skills, vocabulary skills, reading skills, and the mechanics of correct writing.

Source of Data

The School District of Kansas City, Missouri, agreed to cooperate in this study.

All of the sixteen elementary schools cooperating in this study were designated by the School District of Kansas City, Missouri, as being primarily and extensively concerned with the education of disadvantaged pupils. From these sixteen schools, the three most open climate schools and the three most closed climate schools were identified by analyzing their individual OCDQ scores.

The number of pupils enrolled in the sixteen schools are depicted in the following table:

TABLE I

NUMBER OF PUPILS ENROLLED IN THE SAMPLE OF SCHOOLS*

Schools ** !!	Number of Pupils
1.	821
2.**	957
3.!!	901
4.	637
5.	845
6.!!	529
7.	700
8.**	497
9.**	195
10.	181
11.	957
12.	843
13.!!	742
14.	871
15.	1,075
16.	938
Total	11,689

*Data were compiled as of October, 1969.

**These schools were classified as the most open.

!!These schools were classified as the most closed.

The OCDQ as devised by Halpin and Croft is defended by the following authorities.

Owens asserts:

> . . . first, that something actually exists which can properly be called organizational climate. Further, it assumed that organizational climate is closely related to the perceived behaviors of teachers and principals.[48]

The OCDQ is the most widely used technique in isolating the organizational climate of schools.[49]

In reply to criticism levelled at the validity of the OCDQ, Halpin said:

> It is impossible to demonstrate the "validity" of any taxonomy, or any typology. The test of a typology must be in its usefulness. What can be done with it that cannot be done without it? This is the heuristic test.[50]

However, research, as follows, indicates that it has validity.

A study conducted by Smith using the OCDQ led him to assert:

> . . . 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 definition of organizational climate as devised by Halpin and Croft.[51]

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[48]Owens, op. cit., p. 174.

[49]Ibid., p. 174.

[50]Halpin, op. cit., p. 225.

[51]David C. Smith, "Relationships Between External

Support also came from Anderson who found evidence to support the internal consistency of the OCDQ sub-tests.[52]

Devised as it is from a Likert-type questionnaire, the Organizational Climate Description Questionnaire (OCDQ) is administered in a group situation requiring a convenient thirty minutes for completion.

In their original nationwide study, Halpin and Croft used seventy-one schools. The resulting OCDQ scores which established "school profiles" tended to cluster into personality groups. Halpin and Croft arbitrarily identified six such school personality clusters and called them climate types. These climates range from Open at one end of the continuum through Autonomous, Controlled, Familiar, and Paternal to Closed at the opposite end of the continuum.

Both the open and closed organizational climates have unique characteristics. A comparison of these characteristics isolates opposites or near opposites in Esprit, Engagement, Hindrance, Intimacy, Aloofness,

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Variables and the Organizational Climate Description Questionnaire," (unpublished Doctoral Dissertation, Northwestern University, Chicago, 1966).

[52]John Anderson, "School Organization Climate: Some Validity Studies," Canadian Education and Research Digest, V, (December, 1965), pp. 317-334.

Consideration and Production Emphasis.

The OCDQ, therefore, permits schools to be classified according to these characteristics so that other variables, such as language arts achievement, can be compared to test the significance of opposing climates on pupil performance.

The Iowa Tests of Basic Skills devised by Lindquist and Hieronymus was the other instrument utilized in this study. It has been used extensively for almost a decade; purportedly, therefore, educators consider that its use is appropriate to measuring achievement in language skills.

Lindquist and Hieronymus in describing their tests say:

> Each pupil takes only items appropriate to content and difficulty, to his own grade level. . . The content of each test has been carefully selected to reflect the best of current curriculum practices. . . The arrangements of the various tests has been organized into a logical pattern that yields tests of uniform length and reliability.[53]

Lindvall lists the characteristics considered highly desirable in a standardized test such as the Iowa Tests of Basic Skills. These he says are, "validity, reliability, adequacy of norms, ease of administration, ease of scoring and economy."[54]

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[53]Lindquist and Hieronymus, op. cit., p. 3.

[54]C. M. Lindvall, Testing and Evaluation: An Introduction (New York: Harcourt, Brace and World, Inc., 1961).

The Iowa Tests of Basic Skills has these characteristics.[55]

Collection of Data

A representative of the University of Missouri, Columbia, in cooperation with the Kansas City, Missouri, schools held a series of meetings with the principals of the sixteen elementary schools selected for inclusion in the study. The purpose of the meetings was to acquaint the principals with the nature and scope of the investigation and to plan the specific procedures for administering the OCDQ (see Appendix A). Each principal was instructed to administer the OCDQ simultaneously to his faculty and return the completed questionnaires by mail.

Dr. Andrew W. Halpin and Dr. Andrew Hayes of the College of Education, University of Georgia, processed the OCDQ data in the Computer Center of the University of Georgia. Copies of the computer print-outs providing data relative to the designation of the organizational climate of each of the sixteen elementary schools were made available to his researchers. From the administration of the OCDQ the three most open and three most closed organizational climate schools were selected for further study.

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[55]Miriam M. Bryan, in Oscar Krisen Buros The Fourth Mental Measurements Yearbook (Highland Park, New Jersey: The Gryphon Press), p. 41.

The Iowa Tests of Basic Skills was the instrument selected to measure the dependent variable achievement and was administered to all grade 6 pupils attending elementary schools in the school district of Kansas City, Missouri, in March, 1970. The results of these tests were processed by the Central Administrative Research Offices of the Kansas City school district. The scores for all grade 6 pupils attending the six schools classified as the three most open and the three most closed, were made available to the researcher. A series of meetings with the personnel of the Central Administrative Research Offices resulted in extracting only those language arts achievement scores of grade 6 pupils for which a Lorge-Thorndike intelligence quotient score was available.

Superimposing the existence of an IQ score as a criteria for selecting pupils achievement scores for inclusion in this study controlled the variable of a mobile student population, i.e., only students residing in the school district for a minimum of 12 months would have an IQ score entered in their permanent record. This aided in insuring that a stable population of disadvantaged pupils were selected for this study.

Analysis of the Data

Interpretation of the OCDQ data identified the type of organizational climate for each of the participating

schools.

Further analysis of the OCDQ data resulted in the identification of the three most open organizational climate schools and the three most closed organizational climate schools.

Random samples of fifty-four male grade 6 pupils and fifty-four female grade 6 pupils were drawn from the total population of disadvantaged grade 6 pupils attending the three most open climate schools and the three most closed climate schools.

Table II identifies the three most open climate schools, the three most closed climate schools, the respective enrollments of all grade 6 pupils, the respective enrollments of grade 6 male and grade 6 female pupils who had Lorge-Thorndike IQ scores and scores on the Iowa Tests of Basic Skills available and the randomly selected sample of pupils from the two climate-type clusters of schools.

A two-way analysis of covariance was used to test each of the twelve null hypotheses formulated for this study.

The independent variables were climate and sex. The dependent variables were the individual scores on overall language arts achievement, vocabulary skills achievement, reading skills achievement, and the mechanics of correct writing achievement.

TABLE II

OPEN AND CLOSED ORGANIZATIONAL CLIMATE SCHOOLS, TOTAL GRADE 6 ENROLLMENTS IN THE SAMPLE OF SCHOOLS, CONTROLLED* MALE AND FEMALE ENROLLMENTS, AND RANDOM SAMPLE OF GRADE 6 MALE AND FEMALE GRADE 6 STUDENTS

SCHOOL NUMBER**	GRADE 6 ENROLLMENT***	CONTROLLED ENROLLMENT		SAMPLE	
		MALE	FEMALE	MALE	FEMALE
Open Climate					
2	119	36	27	36	26
8	50	11	19	11	18
9	22	7	10	7	10
Total	191	54	56	54	54
Closed Climate					
3	122	48	42	27	19
6	70	23	31	14	17
13	100	26	25	13	18
Total	292	97	98	54	54

*Controlled enrollments limited the population of both male and female disadvantaged pupils to those with Lorge-Thorndike IQ scores and Iowa Tests of Basic Skills scores.

**School number referred to numbers used for sample schools in Table I.

***Grade 6 enrollments included both male and female pupils.

The covariates were the individual IQ scores. The overall language arts scores were computed by a standardizing procedure of adjusting each individual score to a distribution having a mean of fifty and a standard deviation of ten. The design for the analysis of data permitted adequate controls as follows: (1) randomization in the selection of the samples of male and female disadvantaged grade 6 pupils, (2) the availability of a Lorge-Thorndike score not only as the covariate, but also the determinant of mobility in the pupil population from which the samples were drawn, and (3) the IQ as the covariate.

Summary

The statistical methodology of this investigation was a two-way analysis of covariance to determine the significance of open or closed organizational climates on achievement in language arts by disadvantaged grade 6 pupils. The variables under investigation were overall language arts skills, vocabulary skills, reading skills, and the mechanics of correct writing.

The instrument used to determine climate was the Organizational Climate Description Questionnaire (OCDQ). Language arts achievement was measured by the Iowa Tests of Basic Skills. The population for this study was the disadvantaged grade 6 pupils attending the open and closed

schools determined by the OCDQ. Equal random samples of grade 6 male and female students were selected from the open and closed schools. The availability of a Lorge-Thorndike IQ score insured that there was a stable population of disadvantaged pupils from which the samples were drawn.

CHAPTER IV

ANALYSIS OF THE DATA

The Organizational Climate Description Questionnaire (OCDQ) and the Iowa Tests of Basic Skills in language arts scores constitute the data collected for this study. The OCDQ was administered to the faculty in sixteen Kansas City, Missouri, elementary schools which were concerned primarily and extensively with the education of disadvantaged pupils. The Iowa Tests of Basic Skills in language arts was administered to the grade 6 pupils of all elementary schools in Kansas City, Missouri, in March, 1970, including the sixteen schools which were selected for inclusion in this study.

The Identification of Organizational Climates

Before the twelve hypotheses considered in this study could be tested, it was necessary to identify the three most open organizational climate schools and the three most closed organizational climate schools.

A copy of the computer print-out containing organizational climate data for each of the sixteen schools was made available to this researcher. Dr. Andrew W. Halpin and Dr. Andrew Hayes of the University of Georgia, Athens, Georgia, had processed the OCDQ data at the Computer Center, University of Georgia, for Dr. Frederick J.

Gies and this researcher.

Each subject received a raw score on each of the eight sub-tests of the OCDQ. The eight sub-tests of the OCDQ are: (1) Disengagement, (2) Hindrance, (3) Esprit, (4) Intimacy, (5) Aloofness, (6) Production Emphasis, (7) Thrust, and (8) Consideration (see Appendix D). The school mean sub-test score was calculated by averaging the eight sub-tests raw scores school by school. These raw scores represented the average response of the teachers in a particular school on each sub-test. The raw scores were then converted into standardized scores using both normative and ipsative standardization procedures. Both procedures utilized a standard score based upon a mean of fifty and a standard deviation of ten.[56]

The double standardization procedure, as explained above, provided climate profile scores on each sub-test for each school (see Appendix D). The climate profile scores were interpreted as follows: When a climate profile score exceeded fifty on a sub-test, it indicates that the particular school scored above the mean of the sample of schools in the sub-test. A score above fifty on a sub-test also indicated that a sub-test score was above

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[56]Frederick J. Gies, "Values Concerning Disadvantaged Pupils in Differing Organizational Climates," (unpublished Doctoral Dissertation, University of Missouri, Columbia, Missouri, 1970).

the mean of the other sub-test scores of the particular school.[57]

The prototypic profiles for the six organizational climates (see Appendix D) consist of a norm score computed for each sub-test for each of the six climates. The prototypic profiles represent the norms to which each school's climate profile scores were compared in identifying and designating the organizational climate of the school. The climate similarity scores for each school were found by computing the absolute difference between the sub-test climate profile scores and the sub-test prototypic profile scores for each organizational climate and summing the absolute differences. Table III displays the climate similarity scores for each of the sixteen schools used in this study.

An inspection of Table III shows that school 1, 3, 4, 5, 6, 7, 12 and 13 were primarily closed on the basis of their climate similarity scores. Further inspection of Table III shows that schools 14 and 15 were primarily Paternal, schools 10, 11 and 16 were primarily Familiar, and schools 8 and 9 were primarily Open. School 2 possessed equal characteristics of the Autonomous, Controlled,

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[57]Halpin, op. cit., pp. 166-174.

TABLE III

CLIMATE SIMILARITY SCORES* OF THE SIXTEEN SCHOOLS ON THE CCDQ

Schools Tested	Organizational Climates					
	Open	Autonomous	Controlled	Familiar	Paternal	Closed
1.	122	117	59	100	63	31
2.	76	71	71	88	107	71
3.	104	109	83	82	53	39
4.	102	75	77	68	65	53
5.	121	108	56	101	68	36
6.	119	108	76	97	72	26
7.	93	98	100	61	52	48
8.	59	62	74	71	100	96
9.	66	73	69	84	77	99
10.	68	49	101	44	83	87
11.	67	82	94	51	64	88
12.	120	109	65	98	97	31
13.	114	115	75	92	51	31
14.	87	106	94	59	58	68
15.	80	99	95	66	45	59
16.	70	77	87	50	73	83

*The lower the score the greater the similarity with the designated organizational climate.

and Closed organizational climates.[58]

The lowest climate similarity score for a school does not necessarily mean the school's organizational climate is exclusively one type. When the climate similarity score is greater than thirty-five, the organizational climate consists of a combination of the climates with the lowest climate similarity scores.[59]

School 2 on Table III is a case in point. It had climate similarity scores on 71 for the Autonomous, Controlled, and closed organizational climates and portrayed a combination of the three.[60]

Because the climate similarity scores, displayed by some of the sixteen schools used in the sample, were not unequivocally of one particular climate-type, the six categories were collapsed into three major types of organizational climates: (1) Open-Autonomous, composed of the first two, relatively open climates; (2) Controlled-Familiar, composed of the middle two climates; and (3) Paternal-Closed, composed of the last two climates.[61]

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[58]Gies, op. cit., p. 62.

[59]Andrew W. Halpin and Don B. Croft, "Organizational Climate Scoring Program," (Salt Lake City, Utah: University of Utah Computer Center, No date given), p. 4.

[60]Gies, op. cit., p. 63.

[61]Halpin, op. cit., pp. 170-171.

Table IV shows the climate similarity scores collapsed into three major groups.

It was necessary to adopt this technique in an endeavour to isolate the three most open-type climate schools. While schools 8 and 9 were relatively open (see Table III) no other school could be identified as relatively open until the six climates were collapsed into three. School 2 which previously displayed three equal climate characteristics could now be designated as primarily Open-Autonomous.

All the schools reacted predictably when the categories were collapsed with the exception of school 10.[62] This school was designated as Familiar on the basis of climate similarity scores for the six category classification. However, when the categories were collapsed into three, school 10 appeared to be characterized as Open-Autonomous, a designation which appeared inconsistent with its six climate similarity scores. Because of this discrepancy, another technique was employed to designate the schools according to organizational climate.

By analyzing the sub-test scores normatively standardized for a school (see Appendix D), it was possible to make a decision concerning the relative openness or

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[62]Gies, op. cit., p. 66.

TABLE IV

CLIMATE SIMILARITY SCORES* COLLAPSED INTO THREE MAJOR GROUPS[63]

Schools Tested	Organizational Climates: Open-Autonomous	Controlled-Familiar	Paternal-Closed
1.	239	159	94**
2.	147	159	178
3.	213	165	92
4.	177	145	118
5.	229	157	104
6.	227	173	98
7.	191	161	100
8.	121	145	196
9.	139	153	176
10.	117	145	170
11.	149	145	152
12.	229	163	88
13.	229	167	82
14.	193	153	126
15.	179	161	104
16.	147	137	156

*The lower the score the greater the similarity with the designated organizational climate.

**Scores which are underlined indicate the type of organizational climate or climates predominating in each school.

[63]Gies, op. cit., p. 64.

relative closedness of the organizational climate in relation to other schools in the sample. This technique involved adding the normatively standardized sub-test scores for Esprit and Thrust and subtracting Disengagement. This yielded an openness score.

Table V tabulates the schools ranked on openness scores and the designation of their respective organizational climates. Schools 1, 3, 4, 5, 6, 7, 12, 13, 14 and 15 were shown to have primarily Paternal-Closed climates, and schools 2, 8 and 9 were shown to have primarily Open-Autonomous climates.

This procedure constituted the final identification and designation of the organizational climates of the sixteen elementary schools participating in this study from which the three most open organizational climate schools and the three most closed organizational climate schools were selected. These schools are presented in Table VI.

The Identification of the Sample of Pupils

In selecting the population of disadvantaged grade 6 male and female pupils from which the random sample of 54 male and 54 female pupils were drawn for each of the two opposing organizational climates, two criteria were used for this selection, the Lorge-Thorndike IQ score and the Iowa Tests of Basic Skills score.

TABLE V

SCHOOLS RANKED ON OPENNESS SCORES*

	Rank	School	Openness Scores **
Most Closed	1	6	12
Paternal-Closed	2	13	18
	3	3	28
	4	7	30
	5	12	31
	6	11	32
	7	14	33
	8	5	35
	9	4	37
	10	15	39
Middle Group	11	11	45
Controlled-Familiar	12	16	46
	13	10	47
Most Open	14	2	48
Open-Autonomous	15	8	55
	16	9	57

*This technique was explained by Dr. Andrew Hayes, College of Education, University of Georgia, in a telephone conversation. The Openness Scores were contained on the computer print-out of the OCDQ data processed at the University of Georgia.

**Schools which are underlined are those selected for this study.

[64] Ibid., p. 66.

TABLE VI

SCHOOLS DESIGNATED ACCORDING TO ORGANIZATIONAL CLIMATES COLLAPSED INTO THREE MAJOR GROUPS*

Open-Autonomous Schools	Controlled-Familiar Schools	Paternal-Closed Schools
2	10	1
8	11	3
9	16	4
		5
		6
		7
		12
		13
		14
		15

*Schools which are underlined are those selected for this study.

Null Hypotheses

The following null hypotheses were formulated from the research hypotheses stated in Chapter I of this study:

1. There is no significant difference in overall language arts achievement between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate.
2. There is no significant difference in overall language arts achievement between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils.
3. There is no significant interactive effect between sex and organizational climate when considering overall language arts achievement of disadvantaged grade 6 pupils.
4. There is no significant difference in vocabulary skills achievement between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate.
5. There is no significant difference in vocabulary skills achievement between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils.
6. There is no significant interactive effect

between sex and organizational climate when considering vocabulary skills achievement of disadvantaged grade 6 pupils.

7. There is no significant difference in reading skills achievement between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate.
8. There is no significant difference in reading skills achievement between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils.
9. There is no significant interactive effect between sex and organizational climate when considering reading skills achievement of disadvantaged grade 6 pupils.
10. There is no significant difference in the mechanics of correct writing achievement between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate.
11. There is no significant difference in the mechanics of correct writing achievement between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils.
12. There is no significant interactive effect

between sex and organizational climate when considering the mechanics of correct writing achievement of disadvantaged grade 6 pupils.

Findings from the Three Most Open Organizational Climate Schools and the Three Most Closed Organizational Climate Schools

Hypotheses 1 through 12 were subjected to a two-way analysis of covariance [65] with the .05 level of confidence set as the significant standard.

The two independent variables were organizational climate and sex, with the Lorge-Thorndike IQ scores the covariate, and the respective language arts achievement scores as the dependent variables.

The two-way analysis of covariance used for testing the null hypotheses 1, 2 and 3 produced non-significant F values of 1.77 and 1.04 for hypotheses 1 and 2 respectively, but a significant F value of 7.12 for hypothesis 3.

Table VII presents the analysis of covariance for hypotheses 1, 2 and 3.

The two-way analysis of covariance used for testing the null hypotheses 4, 5 and 6 produced non-significant

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[65] Allen L. Edwards, Experimental Design in Psychological Research (third edition; New York: Holt, Rinehart and Winston, Inc., 1968), p. 347.

TABLE VII

ANALYSIS OF COVARIANCE FOR HYPOTHESES 1, 2 AND 3
OVERALL LANGUAGE ARTS ACHIEVEMENT

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F*
Climate	1	62.199	62.199	1.77
Sex	1	36.387	36.387	1.04
Interaction Climate-Sex	1	253.137	253.137	7.12
Within Groups	211	7,396.434	35.054	

*A critical F value of 3.89 is required for significance at the .05 level of significance.

values of 0.01 and 0.30 for hypotheses 4 and 5 respectively, but a significant F value of 10.89 for hypothesis 6.

Table VIII presents the analysis of covariance for hypotheses 4, 5 and 6.

TABLE VIII

ANALYSIS OF COVARIANCE FOR HYPOTHESES 4, 5 AND 6
VOCABULARY ACHIEVEMENT

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F*
Climate	1	0.008	0.008	0.01
Sex	1	0.287	0.287	0.30
Interaction Climate-Sex	1	10.551	10.551	10.89
Within Groups	211	204.359	0.968	

*A critical F value of 3.89 is required for significance at the .05 level of significance.

The two-way analysis of covariance used for testing the null hypotheses 7, 8 and 9 produced non-significant values of 2.92 and 1.81 for hypotheses 7 and 8 respectively, but a significant F value of 6.98 for hypothesis 9.

Table IX presents the analysis of covariance for hypotheses 7, 8 and 9.

TABLE IX

ANALYSIS OF COVARIANCE FOR HYPOTHESES 7, 8 AND 9
READING ACHIEVEMENT

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F*
Climate	1	2.670	2.670	2.92
Sex	1	1.654	1.654	1.81
Interaction Climate-Sex	1	6.371	6.371	6.98
Within Groups	211	192.627	.913	

*A critical F value of 3.89 is required for significance at the .05 level of significance.

The two-way analysis of covariance used for testing the null hypotheses 10, 11 and 12 produced non-significant values of 2.09 and 0.31 and 0.24 for hypotheses 10, 11 and 12 respectively.

Table X presents analysis of covariance for hypotheses 10, 11 and 12.

TABLE X

ANALYSIS OF COVARIANCE FOR HYPOTHESES 10, 11 AND 12 MECHANICS OF CORRECT WRITING

Source of Variation	Degrees of Freedom	Sum of Squares	Mean Square	F*
Climate	1	1.682	1.682	2.09
Sex	1	0.248	0.248	0.31
Interaction Climate-Sex	1	0.194	0.194	0.24
Within Groups	211	170.106	0.806	

*A critical F value of 3.89 is required for significance at the .05 level of significance.

Further Interpretation of Data

Because of the significant F values obtained for the interaction between the climate variable and the sex variable in hypotheses 3, 6 and 9, the mean achievement scores for overall language arts, vocabulary, and reading for both male and female grade 6 pupils were adjusted

using the Snedecor-Cochran technique.[66] The adjusted means were then plotted to show in graphic detail the significant interactions (see Appendix G).

Summary

Analysis of the data pertaining to this study established the fact that organizational climate has no significant effect on achievement in language arts skills by disadvantaged grade 6 pupils. However, the significant interactive effects found between the independent variables, climate and sex, in analyzing the data used to test hypotheses 3, 6 and 12 established the following facts:

1. Disadvantaged grade 6 female pupils' achievement in overall language skills, reading skills, and vocabulary skills was significantly higher in open schools than in closed schools.
2. Disadvantaged grade 6 male pupils' achievement in overall language arts reading skills and vocabulary skills was significantly higher in closed schools than in open schools.

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[66] George W. Snedecor and William G. Cochran, Statistical Methods (sixth edition; Iowa State University Press, 1967), p. 427.

CHAPTER V

SUMMARY OF FINDINGS, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this study was to investigate the effects of open and closed organizational climates on the language arts achievement of disadvantaged grade 6 pupils.

This study was undertaken in sixteen elementary schools designated by the School District of Kansas City, Missouri, as being concerned primarily with the education of disadvantaged pupils.

Five major assumptions were made concerning the two instruments and the population of schools and pupils. These were: (1) the Organizational Climate Description Questionnaire (OCDQ) is a valid and reliable instrument for classifying the organizational climate of elementary schools; (2) the Iowa Tests of Basic Skills is a valid and reliable instrument for measuring pupil achievement in language arts; (3) the elementary schools utilized in this study are representative and characteristic of inner-city elementary schools throughout the United States; (4) the instruction given by grade 6 teachers in the inner-city elementary schools was comparable; and (5) the grade 6 pupils

selected for this study are representative and characteristic of other disadvantaged grade 6 pupils attending schools in inner-city areas throughout the United States.

The review of literature (see Chapter II) produced evidence that the OCDQ has been used extensively in educational administration research, but infrequently, with studies investigating disadvantaged pupils' achievement. The search of the literature disclosed no evidence concerning the use of the OCDQ and the Iowa Tests of Basic Skills in language arts for comparing language achievement and organizational climates.

The Organizational Climate Description Questionnaire (OCDQ) was administered to the principals and faculty of sixteen inner-city elementary schools selected for inclusion in this study to ascertain the three schools with the most open organizational climate and the three schools with the most closed organizational climate. From the two climate clusters of schools, random samples of 54 male grade 6 pupils and 54 female grade 6 pupils were made.

Two additional criteria were utilized in defining the population from which the samples were drawn: (1) each member of the population had scores available from the administration of the Iowa Tests of Basic Skills, and (2) each member had a Lorge-Thorndike IQ score available.

Criterion 1 ensured that the samples of male and

female students used for this study had the requisite dependent variable score; and, Criterion 2 ensured that there was control over a mobile student population, since only those students who had been attending a school in the district for a minimum of twelve months had an IQ score entered in his or her permanent record. This criterion also permitted the required control over intelligence. The scores on the Lorge-Thorndike instrument were, therefore, used as the covariates in the two-way analysis of covariance to test each of the null hypotheses.

The procedures employed to ascertain the three most open organizational climate schools and the three most closed organizational climate schools were explained in Chapter IV. Chapter IV also provides the calculated F values utilized in ascertaining significance for each of the 12 null hypotheses tested.

Summary of Findings

Based upon the designation of the three most open and the three most closed climated schools according to organizational climates, and the scores obtained by disadvantaged grade 6 pupils on the Iowa Tests of Basic Skills in language arts, the following findings resulted for each of the hypotheses formulated:

Ho_1: The analysis of covariance yielded an F value of 1.77 which was not significant at the .05

level of significance and did not permit the rejection of the null hypothesis that: There is no significant difference in overall language arts achievement between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate.

Ho_2: The analysis of covariance yielded an F value of 1.04 which was not significant at the .05 level of significance and did not permit the rejection of the null hypothesis that: There is no significant difference in overall language arts achievement between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils.

Ho_3: The analysis of covariance yielded an F value of 7.12 which was significant at the .05 level of significance and permitted the rejection of the null hypothesis that: There is no significant interactive effect between sex and organizational climate when considering overall language arts achievement of disadvantaged grade 6 pupils.

Ho_4: The analysis of covariance yielded an F value of .01 which was not significant at the .05 level of significance and did not permit the

rejection of the null hypothesis that: There is no significant difference in vocabulary skills achievement between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate.

Ho_5: The analysis of covariance yielded an F value of .30 which was not significant at the .05 level of significance and did not permit the rejection of the null hypothesis that: There is no significant difference in vocabulary skills achievement between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils.

Ho_6: The analysis of covariance yielded an F value of 10.89 which was significant at the .05 level of significance and permitted the rejection of the null hypothesis that: There is no significant interactive effect between sex and organizational climate when considering vocabulary skills achievement of disadvantaged grade 6 pupils.

Ho_7: The analysis of covariance yielded an F value of 2.92 which was not significant at the .05 level of significance and did not permit the rejection of the null hypothesis that: There

is no significant difference in reading skills achievement between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate.

Ho_8: The analysis of covariance yielded an F value of 1.81 which was not significant at the .05 level of significance and did not permit the rejection of the null hypothesis that: There is no significant difference in reading skills achievement between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils.

Ho_9: The analysis of covariance yielded an F value of 6.98 which was significant at the .05 level of significance and permitted the rejection of the null hypothesis that: There is no significant interactive effect between sex and organizational climate when considering reading skills achievement of disadvantaged pupils.

Ho_{10}: The analysis of covariance yielded an F value of 2.09 which was not significant at the .05 level of significance and did not permit the rejection of the null hypothesis that: There is no significant difference in the mechanics

of correct writing achievement between disadvantaged grade 6 pupils attending schools characterized by an open or closed organizational climate.

Ho_{11}: The analysis of covariance yielded an F value of 0.31 which was not significant at the .05 level of significance and did not permit the rejection of the null hypothesis that: There is no significant difference in the mechanics of correct writing achievement between disadvantaged grade 6 male pupils and disadvantaged grade 6 female pupils.

Ho_{12}: The analysis of covariance yielded an F value of 0.24 which was not significant at the .05 level of significance and did not permit the rejection of the null hypothesis that: There is no significant interactive effect between sex and organizational climate when considering the mechanics of correct writing achievement of disadvantaged grade 6 pupils.

Conclusions

Within the limitations of this study and insofar as the schools, faculty, and grade 6 pupils within these schools were representative of the inner-city schools throughout the United States, the following conclusions

appear warranted:

1. When the effects of intelligence of disadvantaged grade 6 pupils of inner-city schools are controlled, open and closed organizational climates appear to have no effect on achievement in overall language arts, vocabulary skills, reading skills, and the mechanics of correct writing of disadvantaged grade 6 male and female pupils.
2. When the effects of intelligence are controlled, there are significant differences in the interactive effects between organizational climate and sex.
   a. Disadvantaged grade 6 female students achieved significantly higher in vocabulary skills and reading skills when attending schools characterized by an open organizational climate compared to schools characterized by a closed organizational climate.
   b. Disadvantaged grade 6 male students achieve significantly higher in overall language arts skills, vocabulary skills, and reading skills when attending schools characterized by a closed organizational

climate compared to schools characterized by an open organizational climate.

Implications

1. Acknowledging the significant interactive affects between the climate variable and the sex variable and the interpretation of this interaction, it seems reasonable to infer from this study that, for a significantly higher achievement in language arts skills, grade 6 female students require less structure in their educational experiences. Disadvantaged grade 6 male pupils, on the other hand, seem to require a more structured educational experience when compared to their female counterparts.

Recommendations for Further Research

1. Additional investigations of a similar design utilizing other achievement variables should be conducted in inner-city schools which are concerned primarily and extensively with the education of disadvantaged pupils.
2. Investigations should be conducted to ascertain why disadvantaged grade 6 female pupils achieve significantly higher in vocabulary skills and reading skills in schools

characterized by an open organizational climate compared to schools characterized by a closed organizational climate; and why disadvantaged grade 6 male pupils achieve significantly higher in vocabulary skills, reading skills, and overall language arts skills in schools characterized by a closed climate compared to schools characterized by an open organizational climate.

3. Investigations into factors other than the organizational climate of schools should be undertaken to ascertain the effects of these factors on the language arts achievement of disadvantaged grade 6 pupils. Such factors might be: (1) the attitudes of teachers towards disadvantaged pupils; (2) the achievement aspirations of disadvantaged pupils; (3) parental or guardianship influences; and (4) the values held by parents or guardians in support of the accepted values of a particular school system.

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APPENDIX A

Organizational Climate Description Questionnaire

A. W. Halpin and D. B. Croft

The items in this questionnaire describe typical behaviors or conditions that occur within an elementary school organization. Please indicate to what extent each of these descriptions characterize 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 descriptive scale on which to rate the items is printed at the top of each page. Please read the instructions which describe how you should mark your answers.

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 must work. After you have answered the questionnaire, we will examine the behaviors or conditions that have been described as typical by the majority of the teachers in your school, and we will construct from this description a portrait of the Organizational Climate of your school.

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

Teachers call each other by their first names. 1 2 (3) 4

In this example the respondent marked alternative 3 to show that the interpersonal 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 circle your response clearly, as in the example. PLEASE BE SURE THAT YOU MARK EVERY ITEM.

BIOGRAPHICAL INFORMATION

5-7. School _____

Please place a check mark to the right of the appropriate category.

8. Position:
   - Principal _____
   - Teacher _____
   - Other _____

9. Sex:
   - Male _____
   - Female _____

10. Age:
   - 20-29 _____
   - 30-39 _____
   - 40-49 _____
   - 50-59 _____
   - 60 or over _____

11. Years of Experience in Education:
   - 0-9 _____
   - 10-19 _____
   - 20-29 _____
   - 30 or over _____

12. Years at This School:
   - 0-4 _____
   - 5-9 _____
   - 10-19 _____
   - 20 or over _____

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

13.	Teachers' closest friends are other faculty members at this school.	1	2	3	4
14.	The mannerisms of teachers at this school are annoying.	1	2	3	4
15.	Teachers spend time after school with students who have individual problems.	1	2	3	4
16.	Instructions for the operation of teaching aids are available.	1	2	3	4
17.	Teachers invite other faculty to visit them at home.	1	2	3	4
18.	There is a minority group of teachers who always oppose the majority.	1	2	3	4
19.	Extra books are available for classroom use.	1	2	3	4
20.	Sufficient time is given to prepare administrative reports.	1	2	3	4
21.	Teachers know the family background of other faculty members.	1	2	3	4
22.	Teachers exert group pressure on non-conforming faculty members.	1	2	3	4
23.	In faculty meetings, there is a feeling of "let's get things done."	1	2	3	4
24.	Administrative paper work is burdensome at this school.	1	2	3	4
25.	Teachers talk about their personal life to other faculty members.	1	2	3	4
26.	Teachers seek special favors from the principal.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

41.	The principal helps teachers solve personal problems.	1	2	3	4
42.	Teachers at this school stay by themselves.	1	2	3	4
43.	The teachers accomplish their work with great vim, vigor, and pleasure.	1	2	3	4
44.	The principal sets an example by working hard himself.	1	2	3	4
45.	The principal does personal favors for teachers.	1	2	3	4
46.	Teachers eat lunch by themselves in their own classrooms.	1	2	3	4
47.	The morale of the teachers is high.	1	2	3	4
48.	The principal uses constructive criticism.	1	2	3	4
49.	The principal stays after school to help teachers finish their work.	1	2	3	4
50.	Teachers socialize together in small select groups.	1	2	3	4
51.	The principal makes all class-scheduling decisions.	1	2	3	4
52.	Teachers are contacted by the principal each day.	1	2	3	4
53.	The principal is well prepared when he speaks at school functions.	1	2	3	4
54.	The principal helps staff members settle minor differences.	1	2	3	4
55.	The principal schedules the work for the teachers.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

27.	School supplies are readily available for use in classwork.	1	2	3	4
28.	Student progress reports require too much work.	1	2	3	4
29.	Teachers have fun socializing together during school time.	1	2	3	4
30.	Teachers interrupt other faculty members who are talking in staff meetings.	1	2	3	4
31.	Most of the teachers here accept the faults of their colleagues.	1	2	3	4
32.	Teachers have too many committee requirements.	1	2	3	4
33.	There is considerable laughter when teachers gather informally.	1	2	3	4
34.	Teachers ask nonsensical questions in faculty meetings.	1	2	3	4
35.	Custodial service is available when needed.	1	2	3	4
36.	Routine duties interfere with the job of teaching.	1	2	3	4
37.	Teachers prepare administrative reports by themselves.	1	2	3	4
38.	Teachers ramble when they talk in faculty meetings.	1	2	3	4
39.	Teachers at this school show much school spirit.	1	2	3	4
40.	The principal goes out of his way to help teachers.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

56.	Teachers leave the grounds during the school day.	1	2	3	4
57.	The principal criticizes a specific act rather than a staff member.	1	2	3	4
58.	Teachers help select which courses will be taught.	1	2	3	4
59.	The principal corrects teachers' mistakes.	1	2	3	4
60.	The principal talks a great deal.	1	2	3	4
61.	The principal explains his reasons for criticisms to teachers.	1	2	3	4
62.	The principal tries to get better salaries for teachers.	1	2	3	4
63.	Extra duty for teachers is posted conspicuously.	1	2	3	4
64.	The rules set by the principal are never questioned.	1	2	3	4
65.	The principal looks out for the personal welfare of teachers.	1	2	3	4
66.	School secretarial service is available for teachers' use.	1	2	3	4
67.	The principal runs the faculty meeting like a business conference.	1	2	3	4
68.	The principal is in the building before teachers arrive.	1	2	3	4
69.	Teachers work together preparing administrative reports.	1	2	3	4
70.	Faculty meetings are organized according to a tight agenda.	1	2	3	4

1. Rarely occurs
2. Sometimes occurs
3. Often occurs
4. Very frequently occurs

71.	Faculty meetings are mainly principal report meetings.	1	2	3	4
72.	The principal tells teachers of new ideas he has run across.	1	2	3	4
73.	Teachers talk about leaving the school system.	1	2	3	4
74.	The principal checks the subject-matter ability of teachers.	1	2	3	4
75.	The principal is easy to understand.	1	2	3	4
76.	Teachers are informed of the results of a supervisor's visit.	1	2	3	4
77.	Grading practices are standardized at this school.	1	2	3	4
78.	The principal insures that teachers work to their full capacity.	1	2	3	4
79.	Teachers leave the building as soon as possible at day's end.	1	2	3	4
80.	The principal clarifies wrong ideas a teacher may have.	1	2	3	4

APPENDIX B

DATRIX SEARCH

The following constitutes an exact duplication of the material contained on the computer print-out supplied by DATRIX, University Microfilms.

-DATRIX REFERENCE LISTING-PAGE 1

SEARCH NUMBER-005286 PREPARED FOR-MADDEN, JOHN BERNARD

07/18/69

KEYWORDS USED IN SEARCH--

CLIMATE, OPEN, CLOSED

AND

ORGANIZATIONAL, ORGANIZATION CLIMATE

AND

ACHIEVEMENT, LANGUAGE, MATH, SCIENCE, SOCIAL, MATHEMATICS

AND

UNDERPRIVILEGED, DEPRIVED, DISADVANTAGED, NEGRO, RICAN

QUALIFYING CONDITIONS

YEAR 1963 TO 1969

0 REFERENCES FOUND

APPENDIX C

DESCRIPTION OF ORGANIZATIONAL CLIMATES

The Open Climate

The Open Climate depicts a situation in which the members enjoy extremely high Esprit. The teachers work well together without bickering and griping (low Disengagement). They are not burdened by mountains of busywork or by routine reports; the principal's policies facilitate the teachers' accomplishment of their tasks (low Hindrance). On the whole, the group members enjoy friendly relations with each other, but they apparently feel no need for an extremely high degree of Intimacy. The teachers obtain considerable job satisfaction, and are sufficiently motivated to overcome difficulties and frustrations. They possess the incentive to work things out and to keep the organization "moving." Furthermore, the teachers are proud to be associated with their school.

The behavior of the principal represents an appropriate integration between his own personality and the role he is required to play as principal. In this respect his behavior can be viewed as genuine. Not only does he set an example by working hard himself (high Thrust), but depending upon the situation, he can either criticize the actions of teachers or go out of his way to help a teacher (high Consideration). He possesses the personal flexibility to be genuine whether he be required to control and direct the activities of others or to show compassion in satisfying the social needs of individual teachers. He has integrity in that he is "all of a piece" and, therefore, can function well in either situation. He is not aloof, nor are the rules and procedures which he sets up inflexible and impersonal. Nonetheless, the rules and regulations that he adheres to does not have to emphasize production; nor does he need to monitor the teachers' activities closely, because the teachers do, indeed, produce easily and freely. He does not do all the work himself because he has the ability to let appropriate leadership acts emerge from the teachers (low Production Emphasis). Withal, he is in full control of the situation, and he clearly provides leadership for the staff.

The Autonomous Climate

The distinguishing feature of this Organizational Climate is the almost complete freedom that the principal

gives to teachers to provide their own structures-for-interaction so that they can find ways within the group for satisfying their social needs. As one might surmise, the scores lean slightly more toward social-needs satisfaction than toward task-achievement (relatively high scores on Esprit and Intimacy).

When the teachers are together in a task-oriented situation they are engaged in their work; they achieve their goals easily and quickly (low Disengagement). There are few minority pressure groups, but whatever stratification does exist among the group members does not prevent the group as a whole from working well together. The essential point is that the teachers do work well together and accomplish the tasks of the organization.

The teachers are not hindered by administrative paper work, and they do not gripe about the reports that they are required to submit. The principal has set up procedures and regulations to facilitate the teachers' task. A teacher does not have to run to the principal every time he needs supplies, books, projectors, and so on; adequate controls have been established to relieve the principal, as well as the teachers, of these details (low Hindrance). The morale of the teachers is high, but not as high as in the Open Climate. The high morale probably stems largely from the social-needs satisfaction which the teachers receive. (Esprit would probably be higher if greater task-accomplishment also occurred within the organization.)

The principal remains aloof from the teachers, for he runs the organization in a businesslike and a rather impersonal manner (high Aloofness). His leadership style favors the establishment of procedures and regulations which provide guidelines that the teachers can follow; he does not personally check to see that things are getting done. He does not force people to produce, nor does he say that "we should be working harder." Instead, he appears satisfied to let the teachers work at their own speed; he monitors their activities very little (low Production Emphasis). On the whole, he is considerate, and he attempts to satisfy the social needs of the teachers as well as most principals do (average Consideration).

The principal provides Thrust for the organization by setting an example and by working hard himself. He has the personal flexibility both to maintain control and to look out for the personal welfare of the teachers. He is

genuine and flexible, but his range of administrative behavior, as compared to that of the principal in the Open Climate, is somewhat restricted.

The Controlled Climate

The Controlled Climate is marked, above everything else, by a press for achievement at the expense of social-needs satisfaction. Everyone works hard, and there is little time for friendly relations with others or for deviation from established controls and directives. This climate is overweighted toward task-achievement and away from social-needs satisfaction. Nonetheless, since morale is high (Esprit), this climate can be classified as more Opened than Closed.

The teachers are completely engaged in the task. They do not bicker, find fault, or differ with the principal's directives. They are there to get the job done, and they expect to be told personally just how to do it (low Disengagement). There is an excessive amount of paper work, routine reports, busywork, and general Hindrance which get in the way of the teachers' task-accomplishment. Few procedures have been set up to facilitate their work; in fact, paper work seems to be used to keep them busy (high Hindrance). Accordingly, teachers have little time to establish very friendly social relations with each other, and there is little feeling of camaraderie (low Intimacy). Teachers ordinarily work by themselves and are impersonal with each other. In fact, social isolation is common; there are few genuinely warm relations among the teachers. Esprit, however, is slightly above average. We infer that the job satisfaction found in this climate results primarily from task-accomplishment, not from social-needs satisfaction.

The principal is described as dominating and directive; he allows little flexibility within the organization, and he insists that everything be done "his" way (high Production Emphasis). He is somewhat aloof; he prefers to publish directives to indicate how each procedure is to be followed. These directives, of course, are impersonal and are used to standardize the way in which teachers accomplish certain tasks. Essentially, the principal says, "My way of doing it is best and to hell with the way people feel." Means and ends have already been determined; the principal becomes dogmatic when members of the group do not conform to his views. He cares

little about how people feel; the important thing is to get the job done, and in his way. Accordingly, he does not seek to satisfy the group's social needs (low Consideration). Nevertheless, he is trying to move the organization by working hard (average Thrust), and he personally sees to it that everything runs properly. He delegates few responsibilities; leadership acts emanate chiefly from himself, rather than from the group. (Surprisingly, it seems that many school faculties actually respond well to this type of militant behavior and apparently do obtain considerable job satisfaction within this type of climate.)

The Familiar Climate

The main feature of this climate is the conspicuously friendly manner of both the principal and the teachers. Social-needs satisfaction is extremely high, while, contrariwise, little is done to control or direct the group's activities toward goal achievement.

The teachers are disengaged and accomplish little in a task-oriented situation, primarily because the principal exerts little control in directing their activities. Also, there are too many people trying to tell others how things should be done (high Disengagement). The principal does not burden the teachers with routine reports; in fact, he makes it as easy as possible for them to work. Procedural helps are available (low Hindrance). The teachers have established personal friendships among themselves, and socially, at least, everyone is part of a big happy family (high Intimacy). Morale, or job satisfaction, is average, but it stems primarily from social-needs satisfaction.

The behavioral theme of the principal is, essentially, "let's all be a nice happy family"; he evidently is reluctant to be anything other than considerate, lest he may, in his estimation, injure the "happy family" feeling (high Consideration). He wants everybody to know that he, too, is one of the group, that he is in no way different from anybody else. Yet his abdication of social control is accompanied, ironically enough, by high Disengagement on the part of the group.

The principal is not aloof and not impersonal and official in his manner. Few rules and regulations are established as guides to suggest to the teachers how things

"should be done" (low Aloofness). The principal does not emphasize production, nor does he do much personally to insure that the teachers are performing their tasks correctly. No one works to full capacity, yet no one is ever "wrong." Also, the actions of members--at least in respect to task accomplishment--are not criticized (low Production Emphasis). In short, little is done either by direct or by indirect means to evaluate or direct the activities of the teachers. However, teachers do attribute Thrust to the principal. But, in this context, this probably means that they regard him as a "good guy" who is interested in their welfare and who "looks out for them."

The Paternal Climate

The Paternal Climate is characterized by the ineffective attempts of the principal to control the teachers as well as to satisfy their social needs. In our judgment, his behavior is nongenuine and is perceived by the teachers as nonmotivating. This climate is, of course, a partly Closed one.

The teachers do not work well together; they are split into factions. Group maintenance has not been established because of the principal's inability to control the activities of the teachers (high Disengagement). Few Hindrances burden the teachers in the form of routine reports, administrative duties, and committee requirements, mainly because the principal does a great deal of this busywork himself (low Hindrance). The teachers do not enjoy friendly relationships with each other (low Intimacy). Essentially, the teachers have given up trying; they let the principal take care of things as best he can. Obviously, low Esprit results when the teachers obtain inadequate satisfaction in respect to both task-accomplishment and social needs.

The principal, on the other hand, is the very opposite of aloof; he is everywhere at once, checking, monitoring, and telling people how to do things. In fact, he is so non-aloof that he becomes intrusive. He must know everything that is going on. He is always emphasizing all the things that should be done (Production Emphasis), but somehow nothing does get done. The principal sets up such items as schedules and class changes, personally; he does not let the teachers perform any of these activities. His view is that "Daddy knows best."

The school and his duties within it are the principal's main interest in life; he derives only minimal social-needs satisfaction outside his professional role. He is considerate, but his Consideration appears to be a form of seductive oversolicitousness rather than a genuine concern for the social needs of others. In a sense, he uses this Consideration behavior to satisfy his own social-needs. Although he preserves an average degree of Thrust, as evidenced by his attempts to move the organization, he nonetheless fails to motivate the teachers, primarily, because he, as a human being, does not provide an example, or an ideal, which the teachers care to emulate.

The Closed Climate

The Closed Climate marks a situation in which the group members obtain little satisfaction in respect to either task-achievement or social-needs. In short, the principal is ineffective in directing the activities of the teachers; at the same time, he is not inclined to look out for their personal welfare. This climate is the most closed and the least genuine climate that we have identified.

The teachers are disengaged and do not work well together; consequently, group achievement is minimal (high Disengagement). To secure some sense of achievement, the major outlet for the teachers is to complete a variety of reports and to attend to a host of "housekeeping" duties. The principal does not facilitate the task-accomplishment of the teachers (high Hindrance). Esprit is at a nadir, reflecting low job satisfaction in respect to both job satisfaction and social-needs satisfaction. The salient bright spot that appears to keep the teachers in the school is that they do obtain satisfaction from their friendly relations with other teachers (average Intimacy). We would speculate that the turnover rate for teachers in this climate would be very high unless, of course, the teachers are too old to move readily to another job, or have been "locked into the system" by the attractions of a retirement system.

The principal is highly aloof and impersonal in controlling and directing the activities of the teachers (high Aloofness). He emphasizes production and frequently says that "we should work harder." He sets up rules and regulations about how things should be done, and these rules are usually arbitrary (high Production Emphasis).

But his words are hollow, because he, himself, possesses little Thrust and he does not motivate the teachers by setting a good personal example. Essentially, what he says and what he does are two different things. For this reason he is not genuine in his actions. He is not concerned with the social needs of teachers; in fact, he can be depicted as inconsiderate (low Consideration). His cry of "let's work harder" actually means, "you work harder." He expects everyone else to take the initiative, yet he does not give them the freedom required to perform whatever leadership acts are necessary. Moreover, he, himself, does not provide adequate leadership for the group. For this reason the teachers view him as not genuine; indeed, they regard him as "phony." This climate characterizes an organization for which the best prescription is radical surgery.

APPENDIX D

CLIMATE SIMILARITY SCORES OF THE TEACHERS PERCEIVING THEIR ORGANIZATIONAL CLIMATE MOST OPEN ON THE OCDQ[67]

	Organizational Climates*					
Teachers	Opn	Aut	Cnt	Fam	Pat	Cls
1.	54	31	87	66	105	89
2.	29	60	102	51	84	106
3.	52	35	81	58	89	111
4.	82	45	91	58	87	77
5.	39	52	92	65	90	102
6.	40	79	55	84	69	115
7.	40	39	91	56	97	103
8.	44	59	75	76	89	107
9.	25	68	102	51	72	114
10.	68	23	91	50	89	93
11.	43	66	70	77	92	108
12.	44	51	81	60	87	99
13.	39	60	82	65	92	100
14.	52	45	79	80	89	101
15.	52	47	71	90	95	101
16.	62	37	95	44	91	93
17.	30	65	107	48	73	105
18.	48	37	85	54	87	101
19.	39	80	106	49	60	110
20.	33	70	106	49	66	110
21.	25	76	82	69	70	120
22.	27	68	86	73	76	114
23.	45	42	88	55	94	106
24.	44	75	99	60	71	105
25.	48	69	83	76	89	99
26.	38	69	97	56	67	113
27.	56	49	85	78	107	91
28.	42	61	87	62	83	113
29.	45	34	88	49	94	100
30.	53	32	86	51	96	104
31.	52	35	83	66	105	93
32.	41	64	74	83	96	100

*Open, Autonomous, Controlled, Familiar, Paternal, Closed.

[67]Gies, op. cit., p. 158.

CLIMATE SIMILARITY SCORES OF THE TEACHERS PRECEIVING THEIR ORGANIZATIONAL CLIMATE MOST CLOSED ON THE OCDQ

	Organizational Climates					
Teachers	Opn	Aut	Cnt	Fam	Pat	Cls
1.	123	120	60	101	62	26
2.	114	109	63	104	85	33
3.	105	114	90	83	42	32
4.	111	114	84	89	60	34
5.	112	103	71	96	67	33
6.	120	119	67	98	63	33
7.	107	120	84	85	50	34
8.	117	108	78	95	70	28
9.	117	120	76	95	54	28
10.	104	107	87	82	65	29
11.	115	102	78	93	66	28
12.	103	104	96	72	58	30
13.	119	102	72	107	78	34
14.	119	106	70	99	68	34
15.	109	106	86	87	66	30
16.	112	95	93	80	87	35
17.	116	119	75	96	63	35
18.	115	106	78	93	58	22
19.	107	102	86	85	62	26
20.	118	119	79	96	65	27
21.	123	120	70	101	68	34
22.	120	109	79	100	79	23
23.	114	113	91	84	75	31
24.	95	108	100	71	38	34
25.	112	105	75	90	69	33
26.	116	103	77	94	61	31
27.	124	121	67	102	67	29
28.	114	107	79	90	63	17
29.	109	108	82	87	52	32
30.	121	116	72	99	70	26
31.	121	116	64	101	68	30
32.	114	103	89	78	69	31
33.	107	118	86	85	50	28
34.	118	117	77	94	67	25
35.	111	116	86	89	66	34
36.	109	118	88	81	52	34

Ibid., p. 159.

CLIMATE PROFILE SCORES OF THE SIXTEEN SCHOOLS ON THE OCDQ

Schools Tested	Sub-Tests*							
	1 Dis	2 Hin	3 Esp	4 Int	5 Alo	6 Prd	7 Thr	8 Con
1.	62	55	38	37	54	59	44	47
2.	49	56	61	54	55	42	48	31
3.	68	56	36	46	49	48	46	47
4.	63	53	45	44	61	35	51	44
5.	59	56	34	40	58	56	47	45
6.	61	59	33	47	57	51	42	45
7.	65	57	46	57	38	44	41	47
8.	42	62	52	53	48	32	59	49
9.	45	35	50	37	58	54	60	57
10.	51	46	55	62	50	31	45	56
11.	57	45	44	40	53	36	62	58
12.	64	50	37	41	57	58	46	43
13.	66	55	34	44	51	54	45	47
14.	59	63	37	44	45	41	49	57
15.	63	49	32	44	50	47	56	55
16.	53	57	48	51	49	28	54	56

*Disengagement, Hindrance, Esprit, Intimacy, Aloofness, Production Emphasis, Thrust, Consideration.

SCHOOL MEANS NORMATIVELY STANDARDIZED ON THE EIGHT SUB-TESTS OF THE OCDQ, OPENNESS SCORES, AND OPENNESS SCORES RANKED

Schools Tested	Sub-Tests*								Openness Score	Ranked Closed to Open
	Dis	Hin	Esp	Int	Alo	Prd	Thr	Con		
1.	56	52	42	41	51	54	46	47	32	6
2.	45	47	49	46	47	42	44	39	48	14
3.	58	51	40	46	47	46	46	46	28	3
4.	51	46	43	42	50	38	45	42	37	9
5.	55	54	42	45	55	54	48	47	35	8
6.	55	53	29	42	51	46	38	40	12	1
7.	51	47	42	47	38	40	39	42	30	4
8.	45	52	49	49	47	41	51	47	55	15
9.	46	41	49	42	53	51	54	52	57	16
10.	48	46	50	53	48	39	45	50	47	13
11.	48	44	44	43	47	42	49	48	45	11
12.	54	47	40	42	50	51	45	43	31	5
13.	59	50	34	42	47	50	43	45	18	2
14.	54	57	39	44	45	42	48	53	33	7
15.	54	49	42	47	49	48	51	51	39	10
16.	48	49	46	47	46	38	48	49	46	12

*Disengagement, Hindrance, Esprit, Intimacy, Aloofness, Production Emphasis, Thrust, Consideration.

PROTOTYPIC PROFILES FOR SIX ORGANIZATIONAL CLIMATES RANKED IN RESPECT TO OPENNESS VS. CLOSEDNESS[68]

	Group's Characteristics				Leader's Characteristics			
Climates	Dis*	Hin	Esp	Int	Alo	Prd	Thr	Con
Open	43	43	63	50	42	43	61	55
Autonomous	40	41	55	62	61	39	53	50
Controlled	38	57	54	40	55	63	51	45
Familiar	60	42	50	58	44	37	52	59
Paternal	65	46	45	46	38	55	51	55
Closed	62	53	38	54	55	54	41	44

*Disengagement, Hindrance, Esprit, Intimacy, Aloofness, Production Emphasis, Thrust, Consideration.

[68]Halpin, op. cit., p. 174.

APPENDIX E

THE EIGHT DIMENSIONS OF ORGANIZATIONAL CLIMATE

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 "busywork." 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 task-accomplishment.

Principal's 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; nomothetic 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 attempt 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.

APPENDIX F

SCORES OF GRADE 6 MALE STUDENTS
OPEN ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
1.	102	6.4	5.3	7.0	59.129
2.	115	6.1	6.0	6.4	58.724
3.	107	5.8	5.3	7.5	58.916
4.	92	5.0	6.4	6.0	56.044
5.	103	5.6	4.2	6.3	52.429
6.	91	5.6	6.1	4.6	53.165
7.	99	5.2	4.6	5.4	50.211
8.	101	5.0	5.9	5.2	52.673
9.	70	4.7	4.0	3.7	43.041
10.	91	4.4	5.7	5.2	50.652
11.	65	3.2	4.4	4.2	41.662
12.	87	4.7	4.7	3.6	44.653
13.	99	3.5	3.7	3.9	39.775
14.	114	5.4	4.6	5.8	51.726
15.	82	3.8	4.0	3.8	41.064
16.	91	4.1	2.4	4.6	39.580
17.	91	4.1	3.7	4.2	42.027
18.	92	4.4	4.7	4.7	46.711
19.	88	2.5	3.2	4.3	36.982
20.	86	6.1	5.4	4.0	51.009
21.	96	3.5	3.9	5.0	43.111
22.	100	4.4	4.7	4.8	46.966

SCORES OF GRADE 6 MALE STUDENTS
OPEN ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
23.	79	2.3	2.5	3.6	32.836
24.	77	3.5	4.4	4.2	42.406
25.	80	3.0	2.5	4.0	35.590
26.	94	3.8	4.9	5.1	46.776
27.	93	3.5	5.3	4.6	45.825
28.	67	2.5	3.5	3.4	35.489
29.	94	4.7	5.8	5.3	51.917
30.	76	5.4	5.2	4.9	51.033
31.	83	3.5	3.0	3.4	36.635
32.	70	3.0	4.7	4.0	41.457
33.	89	4.7	4.0	5.2	46.862
34.	88	5.8	4.0	7.0	54.175
35.	88	4.1	4.7	4.0	44.184
36.	88	4.7	5.3	5.8	51.858
37.	118	7.0	8.2	8.1	71.152
38.	84	3.5	4.6	3.9	42.175
39.	91	5.2	5.1	4.7	49.761
40.	109	6.2	7.4	5.0	59.138
41.	101	6.2	5.1	5.4	54.024
42.	88	7.4	6.7	4.8	59.737
43.	85	3.5	4.4	3.8	41.387
44.	84	6.0	5.2	5.7	54.559

SCORES OF GRADE 6 MALE STUDENTS
OPEN ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
45.	82	6.9	5.9	4.4	55.345
46.	77	5.0	5.4	5.8	52.868
47.	118	7.0	8.2	5.1	63.509
48.	92	6.4	4.4	5.6	53.163
49.	92	2.8	2.6	4.0	35.362
50.	77	3.8	5.2	5.5	48.593
51.	79	3.5	3.7	5.2	43.087
52.	83	3.0	3.4	4.8	40.029
53.	82	4.4	5.7	5.7	51.926
54.	62	3.5	3.7	3.7	39.266

*Standardized to a distribution with a mean of 50 and a standard deviation of 10.

SCORES OF GRADE 6 MALE STUDENTS
CLOSED ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
1.	80	3.5	3.9	3.6	39.544
2.	84	3.2	3.9	4.1	40.074
3.	98	4.4	3.7	4.3	43.026
4.	80	4.7	4.4	3.7	44.107
5.	96	3.5	4.6	4.6	43.959
6.	103	6.9	5.7	5.8	58.378
7.	84	5.2	4.0	4.4	46.064
8.	84	4.4	4.6	3.6	43.642
9.	89	5.0	5.2	4.2	48.258
10.	104	6.6	7.2	7.0	64.692
11.	83	5.0	4.2	3.5	43.808
12.	92	6.0	5.7	6.6	58.185
13.	98	5.6	4.7	6.0	52.998
14.	78	5.2	3.9	5.1	47.580
15.	76	3.8	4.2	3.1	39.814
16.	100	6.0	5.4	6.4	56.876
17.	75	3.0	3.1	2.6	33.624
18.	68	3.2	3.2	2.7	34.641
19.	78	3.2	4.7	5.7	46.284
20.	94	3.5	5.4	5.6	48.640
21.	91	5.2	4.9	5.1	50.247
22.	71	3.0	4.7	3.3	39.674

SCORES OF GRADE 6 MALE STUDENTS
CLOSED ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
23.	107	5.6	5.4	6.4	55.884
24.	107	8.1	7.8	6.8	69.501
25.	96	6.0	3.9	5.6	50.838
26.	80	4.1	4.6	4.4	44.437
27.	84	4.7	3.9	4.2	44.048
28.	103	5.0	5.3	6.1	55.366
29.	89	5.4	4.6	3.6	46.121
30.	87	3.2	5.1	3.3	41.236
31.	93	5.0	4.9	5.4	50.516
32.	92	5.2	5.6	4.7	51.094
33.	92	4.1	4.0	3.8	41.808
34.	100	7.2	7.4	6.8	66.203
35.	77	4.7	3.7	3.9	42.750
36.	77	5.2	3.7	4.3	45.009
37.	78	3.5	4.2	3.5	40.090
38.	92	6.0	5.4	4.5	52.035
39.	86	3.8	4.9	4.6	45.502
40.	67	3.0	5.6	2.9	41.054
41.	93	5.6	4.0	5.3	49.348
42.	75	4.7	4.0	5.0	46.353
43.	97	7.9	7.9	8.7	74.112
44.	72	3.2	4.2	4.1	40.874

SCORES OF GRADE 6 MALE STUDENTS
CLOSED ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
45.	80	3.5	3.7	5.1	42.833
46.	71	4.1	4.2	3.9	42.596
47.	89	6.0	6.3	6.8	60.295
48.	83	5.2	3.9	3.1	42.485
49.	88	4.4	5.3	5.1	49.330
50.	75	5.0	3.2	4.0	42.416
51.	83	4.4	4.9	4.2	45.951
52.	88	5.6	5.8	4.5	52.110
53.	72	3.5	3.9	3.4	39.035
54.	73	3.5	3.4	3.3	37.447

*Standardized to a distribution with a mean of 50 and a standard deviation of 10.

SCORES OF GRADE 6 FEMALE STUDENTS
OPEN ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
1.	83	5.6	6.7	8.3	64.191
2.	77	4.7	5.7	4.2	48.848
3.	84	3.8	4.2	5.8	47.693
4.	112	6.8	7.3	6.9	65.199
5.	111	9.0	8.2	8.5	77.130
6.	96	7.3	6.7	7.2	65.603
7.	98	4.4	5.9	6.1	53.478
8.	78	4.4	4.0	4.6	44.590
9.	106	6.9	7.4	6.2	63.930
10.	79	5.2	5.3	5.1	51.314
11.	83	5.6	5.3	5.1	52.305
12.	79	3.2	4.0	3.1	37.793
13.	90	4.4	4.4	5.2	47.185
14.	91	4.1	4.2	3.4	41.322
15.	88	4.1	4.6	4.2	44.427
16.	91	4.1	4.2	3.6	41.832
17.	89	5.2	2.7	4.0	41.578
18.	81	4.4	4.9	4.3	46.226
19.	88	3.8	4.2	4.5	43.381
20.	97	5.6	6.4	6.4	58.551
21.	119	7.6	6.6	6.9	65.312
22.	91	5.0	5.3	6.0	53.111

SCORES OF GRADE 6 FEMALE STUDENTS
OPEN ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
23.	106	6.0	5.7	7.1	59.459
24.	86	5.6	5.6	4.3	51.067
25.	111	6.8	7.4	8.0	68.268
26.	100	4.4	4.2	5.1	46.397
27.	129	6.8	7.8	8.3	70.099
28.	104	4.7	5.9	6.0	53.967
29.	112	6.8	6.0	7.5	63.261
30.	104	6.2	5.9	5.6	56.667
31.	108	6.5	6.6	5.7	59.532
32.	115	6.4	6.9	6.2	61.358
33.	97	6.1	6.5	5.4	57.509
34.	108	5.2	6.4	6.8	58.578
35.	77	5.2	5.8	5.6	53.921
36.	77	5.2	5.7	4.8	51.616
37.	100	6.2	6.6	6.0	59.552
38.	89	4.1	5.1	4.2	45.760
39.	92	5.8	6.6	5.2	56.522
40.	70	4.7	5.7	4.1	48.593
41.	129	6.8	7.8	8.3	70.099
42.	104	5.7	5.9	6.0	56.446
43.	112	6.8	6.0	7.5	63.262
44.	104	6.2	5.9	5.6	56.667

SCORES OF GRADE 6 FEMALE STUDENTS
OPEN ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
45.	84	5.8	5.0	4.9	51.492
46.	104	6.4	5.8	6.8	59.953
47.	73	4.1	5.7	4.6	48.379
48.	81	3.8	5.7	5.1	48.909
49.	88	3.8	4.7	3.4	41.912
50.	99	6.2	5.1	5.4	54.024
51.	90	5.8	5.9	4.6	53.127
52.	101	6.4	6.3	5.4	57.720
53.	88	5.0	4.4	4.5	46.889
54.	91	5.2	4.2	4.2	46.088

*Standardized to a distribution with a mean of 50 and a standard deviation of 10.

SCORES OF GRADE 6 FEMALE STUDENTS
CLOSED ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
1.	113	7.4	7.1	6.8	65.899
2.	109	7.4	7.2	7.4	67.694
3.	80	3.8	2.8	4.6	39.903
4.	104	6.4	5.7	6.2	58.158
5.	82	3.8	4.9	3.3	42.190
6.	103	5.0	6.1	7.2	58.301
7.	89	2.4	4.2	4.7	40.420
8.	91	5.4	4.2	4.9	48.367
9.	93	4.1	2.6	5.2	41.642
10.	78	2.8	4.6	3.3	38.911
11.	99	5.0	5.2	5.5	51.570
12.	75	3.8	5.2	4.4	45.793
13.	86	4.7	4.6	4.1	45.660
14.	85	4.7	4.4	5.4	48.438
15.	92	5.8	4.9	6.4	55.047
16.	75	2.8	4.0	5.0	41.642
17.	87	4.1	4.6	4.4	44.937
18.	97	3.8	4.2	4.0	42.107
19.	91	5.0	5.1	4.4	48.501
20.	99	7.4	6.7	6.7	64.577
21.	100	6.0	5.1	5.4	53.528
22.	115	5.4	5.6	7.1	57.705

SCORES OF GRADE 6 FEMALE STUDENTS
CLOSED ORGANIZATIONAL CLIMATE

Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
23.	102	6.6	6.6	7.5	64.366
24.	79	3.8	4.9	4.0	43.934
25.	105	6.4	6.6	7.3	63.360
26.	75	2.8	4.4	4.8	42.120
27.	82	4.1	3.4	4.3	41.482
28.	86	3.2	4.0	3.8	39.577
29.	93	4.4	5.6	4.5	48.602
30.	86	2.5	3.2	3.8	35.708
31.	83	3.8	3.4	4.6	41.502
32.	99	4.4	5.2	6.3	52.121
33.	102	5.8	6.1	6.2	57.737
34.	85	5.0	4.6	4.8	48.187
35.	115	6.0	5.4	6.1	56.111
36.	101	5.0	4.0	5.9	49.340
37.	101	7.2	6.9	6.4	63.850
38.	93	3.8	5.1	6.0	49.602
39.	105	4.4	6.0	5.8	52.980
40.	108	7.0	7.5	7.4	67.502
41.	95	4.7	5.8	5.4	52.171
42.	89	2.6	4.2	4.8	41.170
43.	107	7.2	7.1	7.9	68.205
44.	95	6.9	5.9	5.8	59.912

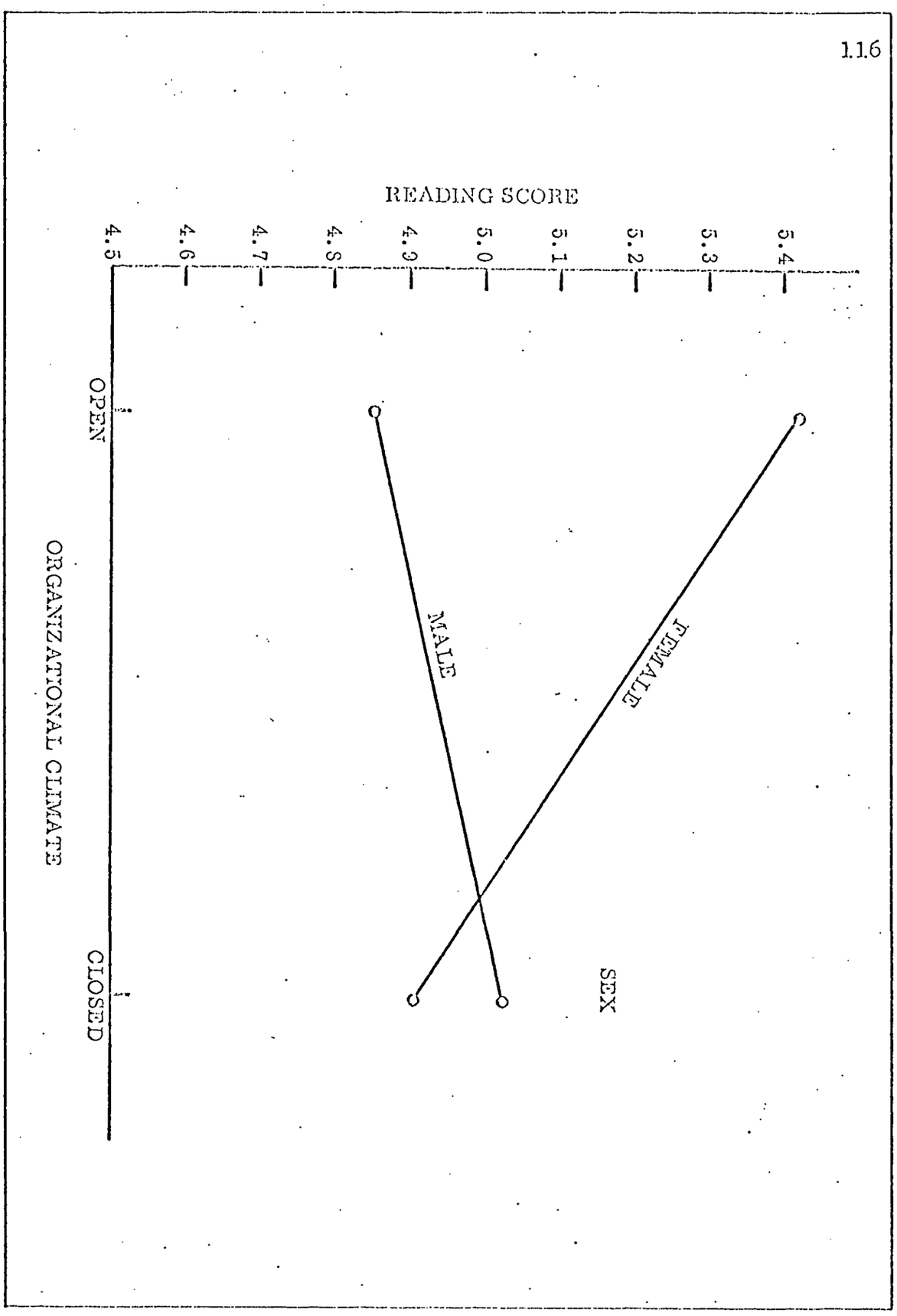
SCORES OF GRADE 6 FEMALE STUDENTS
CLOSED ORGANIZATIONAL CLIMATE

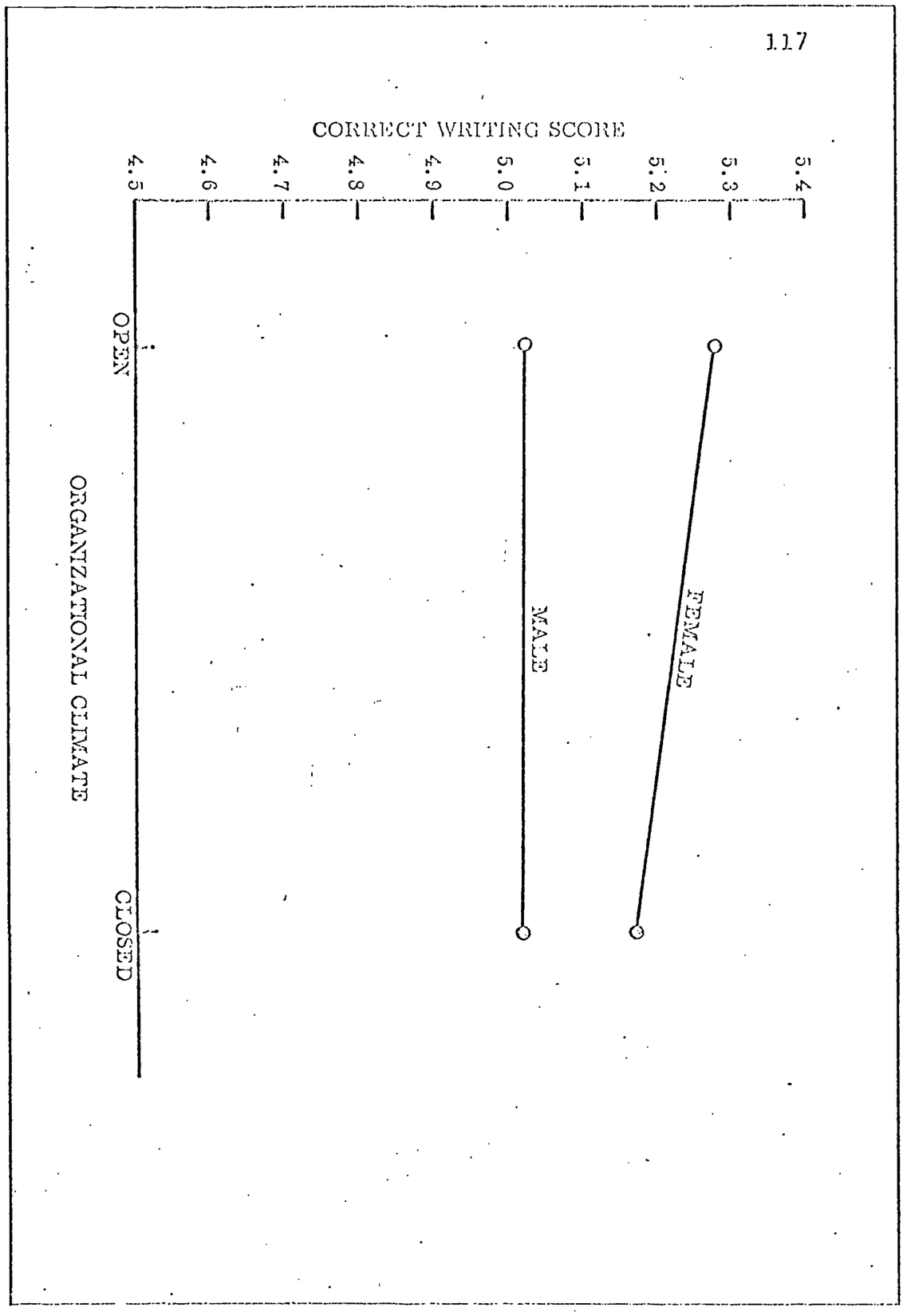
Student Number	Lorge-Thorndike IQ	Iowa Tests of Basic Skills			
		Vocabulary	Reading	Writing	Overall Language Arts*
45.	73	3.2	3.1	2.8	34.629
46.	105	6.8	6.6	6.2	61.549
47.	75	5.2	4.2	3.9	45.323
48.	113	6.9	6.5	7.9	65.862
49.	99	3.0	6.4	4.6	47.519
50.	80	3.8	4.2	3.7	41.343
51.	95	4.4	5.7	5.8	52.180
52.	101	5.2	3.4	3.7	42.680
53.	85	3.2	3.9	3.7	39.055
54.	65	3.0	2.7	3.7	35.360

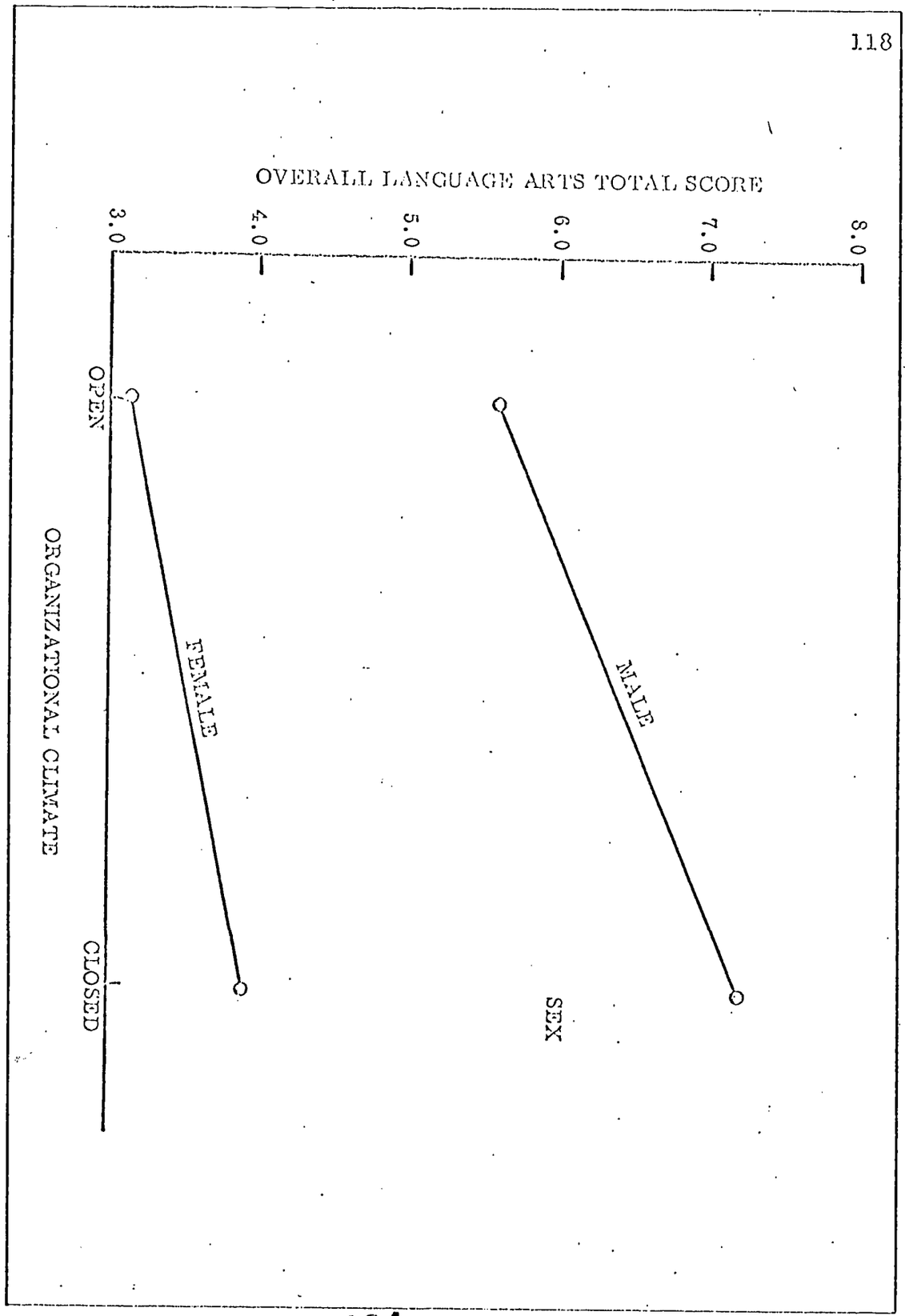
*Standardized to a distribution with a mean of 50 and a standard deviation of 10.

APPENDIX G

115
VOCABULARY SCORE
4.5
4.6
4.7
4.8
4.9
5.0
5.1
5.2
5.3
5.4
OPEN
CLOSED
ORGANIZATIONAL CLIMATE
FEMALE
MALE
SEX


READING SCORE
4.5
4.6
4.7
4.8
4.9
5.0
5.1
5.2
5.3
5.4
OPEN
CLOSED
ORGANIZATIONAL CLIMATE
MALE
FEMALE
SEX


117
CORRECT WRITING SCORE
4.5
4.6
4.7
4.8
4.9
5.0
5.1
5.2
5.3
5.4
OPEN
CLOSED
ORGANIZATIONAL CLIMATE
MALE
FEMALE


118
OVERALL LANGUAGE ARTS TOTAL SCORE
3.0
4.0
5.0
6.0
7.0
8.0
OPEN
CLOSED
ORGANIZATIONAL CLIMATE
FEMALE
MALE
SEX