CRITICAL AREAS OF ADMINISTRATIVE BEHAVIOR
OF CITY SCHOOL SUPERINTENDENTS

DISSERTATION

Presented in Partial Fulfillment of the Requirements
for the Degree Doctor of Philosophy in the
Graduate School of The Ohio State
University

By

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********

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CHAPTER I

INTRODUCTION

The increasing complexity of public school administration has brought about a recognition of the critical role played by the educational administrator and the need for a more adequate understanding of how that role is, or should be, performed as the administrator seeks to fulfill his professional obligation in a manner productive of desirable results in terms of sound educational objectives.

Recognizing the need for more penetrating study in the field of educational leadership, the School-Community Development Study\(^1\) at The Ohio State University undertook, as an integral part of its program directed toward the improvement of educational administration, a study of administrative behavior in its natural setting.

As a result of the work done at the Ohio Center in the early part of the program, several hypotheses were presented.\(^2\) These

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\(^1\)The Ohio Center for the Cooperative Program in Educational Administration, operating under a five-year grant from the W. K. Kellogg Foundation.

hypotheses became the basis for action and for further research. This study is a part of that ensuing research.

I. STATEMENT OF THE PROBLEM

The Purposes of the Study

The purposes of the study were to determine whether or not administrative behavior of city school superintendents could be described and classified within the framework of the nine critical areas of behavior identified by the School-Community Development Study; and to determine whether there were qualitative variations in the administrative behavior of school superintendents rated most effective and least effective.

The nine critical areas of behavior being tested were:

1. Setting goals
2. Making policy
3. Determining roles
4. Co-ordinating administrative functions and structure
5. Appraising effectiveness
6. Working with community leadership to promote educational improvement

---

3This area was formerly called "Using influence and power in the community."
7. Using the educational resources of the community
8. Involving people
9. Communicating

The Hypotheses

The hypotheses of the study were these:

1. The administrative behavior of city school superintendents can be described and categorized within the framework of the nine critical areas of administrative behavior identified in the early exploratory field observations of the School-Community Development Study.

2. The administrative behavior of school superintendents judged to be more effective educational leaders varies quantitatively and qualitatively within the critical areas from that of school superintendents judged to be less effective educational leaders.

II. THE IMPORTANCE OF THE PROBLEM

Basic to any research is an understanding of the interrelation between theory and fact. If a fact is regarded as "an empirically verifiable observation" and if theory is understood as referring to

---

"the relationships between facts,"\textsuperscript{5} then it becomes clear that fact and theory are not opposites, but rather are interacting components of any science.

Theory provides for the ordering of facts, for generalizations based on facts, and for a prediction of facts. Facts, on the other hand, may be used to generate theory, cause existing theory to be modified, or cause theory to be rejected.\textsuperscript{6}

A fundamental theory advanced by the School-Community Development Study was that "administrative behavior is conditioned by, dependent upon, or varies with certain identifiable factors."\textsuperscript{7}

Any change in administrative behavior thus becomes dependent upon a change in factors or the bearing of those factors upon the behavior. If the fundamental theory is to be logically related to fact and thus be verified, then, among the facts to be related by theory must be those concerning administrative behavior.

It would seem that knowledge and understanding of administrative behaviors are requisite to the study of the factors affecting those behaviors. One could hardly be expected to productively

\begin{itemize}
\item \textsuperscript{5}Ibid.
\item \textsuperscript{6}Ibid., pp. 9-16.
\item \textsuperscript{7}Ramseyer, et al., op. cit., p. 97.
\end{itemize}
change or improve administrative behavior by altering the factors affecting that behavior, unless he knew something of the behavior he was attempting to change or improve or of the direction in which he was attempting to move.

This study has attempted to define operationally some of the administrative behavior of the school superintendent, thus providing a necessary link between empirical observation and theory. It further has attempted to focus attention upon some of the facts--the action--comprising administrative behavior.

A related facet of the importance of this study is to be found in the need to examine the behavioral act itself. As will be indicated in Chapter II, much has been written about the history and development of educational administration and particularly of the superintendency, the tasks of the school superintendent, the substance of administration, the nature of the administrative process, democracy in administration, areas of professional competence needed by the school administrator, and personal traits of good administrators. But it has been only in the recent past that increasing attention has been directed to an examination and an analysis of the behavioral acts of the school administrator and to the quality of performance of those acts.

A knowledge of the theory and of the substance of administration
is essential. But knowledge alone is not enough. Knowledge must be put to use through skill. It can not be assumed, however, that because a superintendent has knowledge he also has skill. Nor can it be assumed that skill is demonstrated in direct proportion to the amount of knowledge acquired. The expertness or excellence of performance—the skill—seems to depend in large part upon certain qualitative aspects of behavior, upon how the person goes about his job.

In addition to quantitative analysis, an effort has been made in this study to move in the direction of a qualitative analysis of the behavior of school superintendents and to point out certain kinds of behaviors in the critical areas which seem to make a difference between more effective and less effective administrative action. Admittedly, and by the nature of the limitations imposed upon the study, the problem of the quality of behavior has not been solved. Much remains to be learned through further research.

III. THE ORIGIN OF THE STUDY

The Work of the School-Community Development Study

This study had its origin in the program of research and field service of the School-Community Development Study, one of eight regional study centers in the nation-wide program known as
the Co-operative Program in Educational Administration.

The Ohio Center had as its broad purpose the improvement of educational leadership. Three interrelated phases were involved in the five-year program:

1. studying educational leadership in the administrative situation,
2. changing the preparation of administrators in the light of the study findings,
3. encouraging a co-ordination of the leadership efforts of the State Department of Education, the professional organizations of administrators and the universities.  

In order to study educational leadership in its natural setting, six Ohio school systems, ranging from rural to large city districts, were selected by the School-Community Development Study to serve as field centers for exploratory investigations. Project co-ordinators and "participant-observers" were assigned to make unstructured investigations in these administrative settings.  

After several months of observation and analysis, two sig-


10For a more complete description of this and subsequent activity, see Ramseyer, et al., Factors Affecting Educational Administration, op. cit., pp 6-17.
nificant kinds of information began to appear: (1) a set of observable administrative behaviors that seemed to be of critical importance in the improvement of the educational program in the situations observed; and (2) the identification of factors which were presumed to affect the quality of administrative behavior.\textsuperscript{11}

This information provided a framework upon which to base further systematic research. It was at this point that the present study began to take shape.

The Concurrent Studies

It should be noted that early in the development of the program of the School-Community Development Study, an examination of the literature of research in educational administration seemed to indicate that much of the value of this research was being lost because of a lack of interrelatedness between or among projects and because of the frequent absence of systematic plans to use the results of research as the basis for changing practices and for further research.\textsuperscript{12}

To avoid these weaknesses at least partially, four concurrent studies were cooperatively planned as an integral part of the School-

\textsuperscript{11} Ibid., p. 14.

\textsuperscript{12} Ibid., p. 6.
Community Development Study program. These studies were intended, from their beginnings, to serve as a link in the chain of research and service being forged by the Ohio Center.

In order to refine the critical areas postulated through the original field studies, to test the usefulness of those categories in examining administrative behavior, and to give some direction to further related research, it was proposed that four levels of administrative activity be examined in a wider population. These levels included the elementary school principalship, the secondary school principalship, the local school executive headship, and the city school superintendency. Each member of the research team used a different level of administration as a source of administrative behavior.

The present study and this report are concerned with the administrative behavior observed and analyzed at the level of the city school superintendency.

IV. THE GENERAL PLAN OF THE STUDY

Since it was the purpose of the research to examine and

13 An executive head in Ohio is the chief administrator of a local school system which operates under a local board of education and under the limited supervision of a county superintendent of schools.
analyze behaviors of city school superintendents as they performed their professional duties, it was necessary to select subjects to be the source of, and to exhibit, these behaviors. It was decided that ten city school superintendents would provide a satisfactory quantity and range of behaviors. An independent jury of eleven educators was asked to rank known superintendents on the basis of "over-all administrative effectiveness." These rankings were used in the selection of subjects to be observed.

Working arrangements with the subjects were established during an orientation visit with each superintendent. Following this visit, which also served as an observation period, the remaining observation periods were tentatively scheduled. These consisted of two half-day observations and one full-day observation. The entire schedule of observations extended over a ten-week period.

During each observation period, notes on the observed behaviors were made. Not having definitely established the criteria for admissible behavior during the early part of the field work, an effort was made to note all of the administrative behavior exhibited. As will be pointed out later in this report, it was not possible or even practical to make a "complete" record.

As soon after each observation period as possible, usually the same day, a more complete record of the observation in descriptive
and anecdotal form was dictated from the notes and from memory. This dictation was then transcribed by secretarial personnel and returned to the observer for editing. Following the editing for accuracy and arrangement, units of behavior were placed on "Keysort" cards to facilitate categorization and analysis.

As it later developed, definition of the categories proved to be one of the principal problems of the study. The research team prepared and agreed upon a set of general definitions for the critical areas and applicable to the four concurrent studies. Tentative a priori behavioral or operational definitions within each category and applicable to the behavior of superintendents were then prepared by this investigator.

As the classification of behaviors proceeded, behavioral definitions were revised in light of what superintendents were observed to be doing. By the time all of the behaviors were examined, a rather exhaustive set of definitions had been prepared for each of the nine original categories and for one new category.¹⁴

A frequency count was prepared for the totals of behaviors of each superintendents in each critical area. Further, frequency counts were prepared for similar kinds of behavior or types of acts

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¹⁴Fostering human relations.
within each category for each superintendent. These tabulations were used later in the analysis of the data.

In order to determine the reliability of the categorization which had been completed, the three other team members were asked to categorize independently, on the basis of the final definitions, a random sample of approximately 10 per cent of the cards in the data. These check categorizations were then tested statistically.

For the purpose of analysis, the data were grouped according to behaviors exhibited by the most effective superintendents and behaviors exhibited by the least effective superintendents. Following the analysis, the findings were prepared and reported, the conclusions were drawn, and certain implications were offered.

A more complete description of the procedures used in this study is presented in Chapter III.

V. ASSUMPTIONS

Certain assumptions underlie the hypotheses and the methodology of this study: (1) the administrative effectiveness of the superintendent is determined, to a large extent, by his behavioral acts as he performs his professional duties; (2) the behavioral acts of the superintendent can be observed, described, and categorized; (3) the over-all administrative effectiveness of school superin-
tendents may be judged qualitatively by other persons familiar with, or having knowledge of, the superintendent's administrative behavior; and (4) behavioral acts of the superintendent may be observed under conditions which approximate those of his normal behavior closely enough to be useful for the purposes of this study.

VI. DEFINITION OF TERMS

Administrative behavior. In this study, administrative behavior is considered to be the overt or observable acts performed, as well as the mental processes engaged in, by the school superintendent as he goes about his professional activity. In the case of mental process, it is necessary to confirm mental activity by some overt act or statement on the part of the superintendent.

It should be noted that this use of the term is not as inclusive as that proposed by the School-Community Development Study in some of its reports. In the latter instance, administrative behavior is defined as the resultant of the behaviors of students, teachers, board members, parents and other school patrons, and legislative groups who act collectively under the stimulus of the behavior of an administrator.¹⁵

In the present study, administrative behavior is limited to the behavior of the administrator.

**Critical area.** A critical area of administrative behavior is defined as a category or grouping of behaviors which, upon analysis, seem to have a common essence, and within which category the quality of behaviors may be observed to vary. The term category is used synonymously with the term critical area in this report. The category system refers to, and includes, all of the critical areas.

**City school superintendent.** A city school superintendent is the chief executive officer of the board of education in a city school district. Ordinarily, in Ohio, a city is defined as consisting of 5,000 or more people. In this report, the terms superintendent and subject are used synonymously with the term city school superintendent.

**Most effective superintendent.** In this study, the term most effective superintendent is used to designate a member of the group of superintendents in the sample described most frequently and uniformly by the independent jury as "most effective" on the basis of "over-all administrative effectiveness." Group 1 of the sample is composed of most effective superintendents.
Least effective superintendent. The term least effective superintendent denotes a member of the group of superintendents in the sample described most frequently and uniformly by the independent jury as "least effective" on the basis of "over-all administrative effectiveness." Group 4 of the sample is composed of least effective superintendents.

VII. LIMITATIONS OF THE STUDY

At the outset of the study, a number of limitations were evident. Among them was the problem of selecting subjects whose behavior could be observed. Time, financial resources, and certain geographical considerations entered into the final decision. It also appeared necessary to effect a reasonable compromise between a desire to observe a large number of superintendents and the advisability of making rather intensive and lengthy observations of each superintendent's behavior.

It was also apparent that, in the absence of an instrument for rating effectiveness, the validity of the ratings of the jury who helped select the subjects might be open to question. Nevertheless, it was necessary to accept the ratings as valid and usable for the purposes of this study. Some justification for this acceptance may
be found in the fact that, in current practice, school superintendents are frequently rated, employed, demoted, or dismissed on the basis of judgments arrived at in much the same manner as the judgments of the jurors.

As the study progressed, and as the result of frequent discussions with, and progress reports to, the other team members and with the staff and associates of the School-Community Development Study, some of the anticipated limitations of the observation-recording technique were confirmed. The training, skill, experience, perceptions, and values of the observer-recorder determine to a large extent what is "seen" and what is recorded. Human fallibility, errors in perception, imperfect memory, and mental and physical fatigue must be recognized as factors in the efficiency of the technique used.

It was impossible to get a complete and accurate record of all of the superintendent's behavior that was observed. As the observation situation becomes more complex, a larger proportion of the admissible data becomes lost. During the process of categorization, it became evident that the observer knew, or had remembered, more about the behavior than appeared on the data cards. A small portion of this knowledge could be, and was, restored to the data when it appeared necessary for a more accurate
Another limitation which is recognized is that some of the administrative behavior of school superintendents takes place outside the office hours or away from the school plant. While some of these behaviors can be, and were, observed or recorded, many administrative acts do not come to light, simply because the observer was not present when the act occurred. Many of these acts occur spontaneously and, therefore, can not be anticipated or predicted.

In this same connection, a series or complex of behaviors directed toward a single objective may extend over a span of time not encompassed by the observation period. Because of this circumstance, this study can not purport to have determined the effectiveness of the behavioral act observed. It can go no farther than to say that certain kinds of acts seemed to be performed more frequently or less frequently by the most effective superintendents than was true among the least effective superintendents, or that the ways the acts were performed differed between the two groups.

Finally, in recording the data for purposes of analysis, the strict application of highly selective criteria for a unit of behavior may result in the fragmentation of behavior to the extent that the essence or nature of the behavior may be transformed, obscured, or lost. On the one hand, the unit may be so broad that, although
it may be fairly reliable, it does not discriminate. At the other extreme, the unit may be so minute that, while it is quite reliable, the analyst comes up with nonsense. Consequently, in applying the criteria for a unit of behavior, an effort was made to hold to a middle ground, perhaps sacrificing some reliability in order to secure and retain meaning in relation to the act observed.

As a result of these limitations, generalizations from the findings must themselves be limited. In the absence of certainty, one can settle for no more than probability.

VIII. AN OVERVIEW OF THE REPORT

In Chapter I a summary of the problem, its origin, the hypotheses, and the methodology have been given. Chapter II presents a review of some of the literature and research relevant to the problem. The methodology used is detailed in Chapter III. Chapter IV deals with the definitions of the categories of behavior and with some of the problems encountered in the categorizing process. In Chapter V the findings of the analysis of the behavioral data in relation to the category system as a whole are presented. Descriptions of the behavioral data and findings resulting from the analysis in terms of the subcategories of each critical area, are contained in Chapter VI. Chapter VII presents a summary of the
research and certain conclusions pertaining thereto. The report is concluded in Chapter VIII with recommendations and implications seen for further research, for the training of educational administrators, and for the practicing administrator.
CHAPTER II

THE LITERATURE RELATED TO THE STUDY

Most of the literature in the field of public school administration has appeared during the last fifty years. C. C. Moore states that

there was little educational literature which would enrich the experience of the beginning superintendent before 1900. The educational administrator was able to receive a preparation for his work only in the school of experience for three quarters of a century.¹

But should the literature suffer any disadvantage in not yet having come of age, the same will not hold in relation to the volume produced in its comparatively short history.

In analyzing the literature in the field of school administration, Pittenger has pointed out six approaches used by writers: (1) the empirical approach, based largely on personal and administrative experience of superintendents and principals; (2) the legalistic approach, which examined school administration within a framework of laws and regulations; (3) the historical approach, which ranked in importance with the empirical approach in the early stages of formal

instruction and which added academic respectability to the field; (4) the scientific approach, which applied the methods of science to the solution of school administration problems, but which appeared to be inadequate for setting goals and framing the related policies of school administration; (5) the philosophical approach, which was a reaction against an exclusively scientific approach and which sought to define goals or objectives upon the basis of social or group values; and (6) the democratic approach, which was originally a protest against authoritarianism but which later emphasized the social environment which the school provides, and which advocated that the school be a laboratory for democratic living.²

Even this brief analysis of the nature and extent of the literature points to the necessity of being selective in the matter of citation. Consequently, reference will be made only to some of the literature which seems to be most pertinent to the study.

The criteria for the selection and citation of the literature are two-fold: (1) it should provide a setting in thought, experience, and research for the present study, and (2) it should provide some basis for interpretation and evaluation of the present study.

I. THE DEVELOPMENT OF THE SUPERINTENDENCY AND SCHOOL ADMINISTRATION

The beginnings of public school administration in the United States may be found in the educational history of New England. Cubberley's review\(^3\) of the high points of the story would appear to be adequate for the purpose of this report, although more of the details are provided by Reller\(^4\) and Suzzallo.\(^5\)

While the early schools always had some kind of local oversight, it was not until education became a function of the state that this oversight passed from the church to the state. This transfer of responsibility was a slow and gradual process. The influence of the church was felt long after the state became involved.

As long as the school was a small and simple affair, it operated

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\(^5\) Henry Suzzallo, *The Rise of Local School Supervision in Massachusetts, Contributions to Education, Volume 1, No. 3* (New York: Teachers College, Columbia University, 1906).
on the basis of decisions made by the people in town meetings. The operation and control of the school was largely a lay function.

But it was not long before a distinction began to appear between lay and professional functions in the control of school affairs. The first evidence came about 1654 when a general law of the Massachusetts Colony directed the selectmen to exercise some supervision over the character of the teachers employed. By 1702, the master of a grammar school had to be examined and certificated by a majority of the ministers of the town.

As the schools grew, some administrative duties were turned over voluntarily to school committees by the towns. By 1798, authorized supervision of schools by school committees had made its appearance in Massachusetts. About twenty-five years later, a distinct local school board had evolved in Massachusetts and was directed by the state to have "the general charge and superintendence of all the public schools" of the town. By about 1840, many cities had accepted the idea of a separate board of education for the management of the public school system.

As the school organization became larger and more complex, and particularly as the public high school appeared, a distinction between legislative and executive functions was drawn, when special standing committees and subcommittees were organized to transact
the business of the schools. It is not difficult to understand that in many cases sheer size of the organization caused it to become unwieldy and to bog down in its own mechanism, when one notes that Chicago once had seventy-nine standing subcommittees, Cincinnati had seventy-four, and Philadelphia, as late as 1905, had 559 board members.

The evolution of the city superintendency is rather closely related to the development of school boards. Boards of education, recognizing the need for help in carrying out their increasing duties looked for persons who were qualified to perform at least some of these tasks. Some of these first superintendents were not even school men, none were technically trained as administrators, but they did have certain abilities, frequently in management and business operation. Their roles were not uniform from city to city, but were determined largely by local conditions, by their own interests and abilities, and by boards of education as they saw fit to delegate certain functions.

Although Buffalo and Louisville established the city school superintendency in 1837, and although the National Association of School Administrators (now the American Association of School Administrators) was organized in 1865, it was not until about 1875 that the professional school superintendent was accepted--albeit
reluctantly in some quarters—as a part of educational organization. To him were delegated professional functions dealing with teachers and instruction, buildings and equipment. The board usually retained control over finances and the power to enact general legislation.

Then, as the school organization became still more complex and involved, and as more men became superintendents, the position grew in prestige and importance. Boards of education began to rely more heavily upon the superintendent for the actual administration of the schools. Many of the powers and executive functions formerly held by the board were now being placed upon the superintendent. Because vestiges of the practice still remain, it is interesting to note that finances and business functions were among the last to be delegated to the superintendent.

The story since the turn of the present century is one which recounts the beginning of genuine administrative research, the development of specialized training for school superintendents, the growth of professional consciousness, the growing acceptance of the concept that the superintendent is the chief administrative officer and technical advisor to the board of education, and a realization that the superintendent is a leader in school-community action for
the improvement of public education. Today,

the superintendent is an orchestra leader, drawing from the community harmony or discord. The superintendent is a plant manager, leading an organization into success or failure. The superintendent is a laborer, serving public and staff with skill and devotion. The superintendent is a person with an unlimited opportunity for service and a truly great responsibility for leadership.

II. EARLY FOUNDATIONS OF THE CONCEPT OF ADMINISTRATION

In their historical-comparative search for a minimal definition of "administration," Belisle and Sargent have found a wide range of viewpoints and approaches in the literature. This diversity is attributed in part to the outlooks of different fields of practice and different schools of thought within the fields, and in part to the relatively recent emergence of different approaches to the subject reflecting different social science orientations.

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7 Ibid., p. 443.

While a detailed examination of this diversity might prove profitable, it appears more appropriate for the purposes of this study to direct special attention to the significant contribution of Henri Fayol, a famous French industrialist, to the development of a concept of administration and to the science and practice of administration.

Although Frederick W. Taylor, an American industrial engineer, was the pioneer in the scientific study of management activities, Henri Fayol was the first successful business leader to subject his own duties and responsibilities to scientific scrutiny and analysis. Taylor's interest seemed to center around finding a sound basis for economy of effort in doing physical work, in improving manufacturing techniques, and in improving the output of labor. Fayol showed that better management was not only a question of improving the output of labor and of planning a staff to help out the foremen, but that it was primarily a matter of more intensive study and more administrative training for the men at the top. And it was Fayol who, in 1916, laid the foundations for much of the present theory and


practice in educational administration.

Although Fayol's background and experience were primarily in the mining industry, he did not limit his theories to that industry. In an address before the Second International Congress of Administrative Science at Brussels in 1923, he said:

The meaning that I have given to the word administration and which has been generally adopted, broadens considerably the field of administrative science. It embraces not only the public service but enterprises of every size and description, of every form and every purpose. All undertakings require planning, organization, command, co-ordination and control, and in order to function properly, all must observe the same general principles. We are no longer confronted with several administrative sciences but with one alone, which can be applied equally well to public and to private affairs. . . .

Fayol divides all activities to which industrial undertakings give rise into six groups: (1) technical activities (production, manufacture, adaptation); (2) commercial activities (buying, selling, exchange); (3) financial activities (search for and optimum use of capital); (4) security activities (protection of property and persons);

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11 Urwick laments the fact that in the Storrs-Pitman English translation and publication, Fayol's word "administration" became "management." In the original English translation and in Urwick's usage the term remains "administration." See Fayol, op. cit., p. xii. In the remainder of this report the term "administration" will be used.

(5) accounting activities (stocktaking, balance sheet, costs, statistics); and (6) administrative activities (planning, organization, command, co-ordination, control).

Administration is defined by Fayol as "to forecast and plan, to organize, to command, to co-ordinate and to control."\(^{14}\)

To foresee and provide\(^{15}\) means examining the future and drawing up the plan of action. To organize means building up the dual structure, material and human, of the undertaking. To command means maintaining activity among the personnel. To co-ordinate means binding together, unifying and harmonizing all activity and effort. To control means seeing that everything occurs in conformity with established rule and expressed command.\(^{16}\)

The administrative function is considered as distinct from the other five essential functions. It is not an exclusive privilege or a particular responsibility of the head of the business, but is spread between the head and the members of the organization.

Of particular value to the understanding of administration as a science and having implications for educational administration is Fayol's observation that technical ability is the most important one required of the

\(^{13}\)Fayol, op. cit., p. 3.

\(^{14}\)Ibid., pp. 5-6.

\(^{15}\)Prevoyance, forecasting and planning.

\(^{16}\)Fayol, op. cit., p. 6.
lower grades of large concerns and heads of small concerns, managerial ability is the most important ability demanded of higher managers. Technical ability predominates lower down the ladder and managerial ability higher up. . . . The technical function has long been accorded the due rank which it must keep, but it is not sufficient of itself to ensure the smooth conduct of business affairs; assistance is needed from the other essential functions and in particular from the managerial function.

Urwick has paraphrased this statement succinctly by stating that

a man with high administrative qualifications who has never been inside a steel or biscuit works may succeed. A man with all the knowledge of steel or biscuit making in the world, but who lacks the requisite level of administrative knowledge and capacity will certainly fail. 18

If Fayol's concept in this regard is acceptable, there seem to be some rather pertinent implications in regard to the training, selection, and promotion of school superintendents.

One additional reference to Fayol's work seems appropriate at this point. While discussing the element of organizing in administration, he identifies sixteen administrative duties applicable to every business, simple or complex:

1. Ensure that the plan is judiciously prepared and strictly carried out.

17 Ibid., pp. 11-13.

18 Gulick and Urwick, op. cit., p. 120.
2. See that the human and material organization is consistent with the objective, resources, and requirements of the concern.

3. Set up a single, competent energetic guiding authority.

4. Harmonize activities and co-ordinate efforts.

5. Formulate clear, distinct, precise decisions.

6. Arrange for efficient selection--each department must be headed by a competent, energetic man, each employee must be in that place where he can render greatest service.

7. Define duties clearly.

8. Encourage a liking for initiative and responsibility.

9. Have a fair and suitable recompense for services rendered.

10. Make use of sanctions against faults and errors.

11. See to the maintenance of discipline.

12. Ensure that individual interests are subordinated to the general interest.

13. Pay special attention to unity of command.

14. Supervise both material and human order.

15. Have everything under control.

16. Fight against excess of regulations, red tape and paper control.¹⁹

An examination of the categories of behavior defined in Chapter IV will show a rather close similarity to most of Fayol's

¹⁹Fayol, op. cit., pp. 53-54.
administrative duties. In fact, without too much distortion, each of Fayol's duties could be converted into behaviors and then be categorized within the framework being used in this study. Proceeding in the opposite direction, with some rearrangement, the categories of behavior could be subsumed under Fayol's elements of administration.

Even though Fayol has laid some firm foundations for the improvement of educational leadership and leadership in general, it is doubtful that the full significance of his effort has been recognized.

III. RECENT CONCEPTS USED IN THE STUDY OF EDUCATIONAL ADMINISTRATION AND EDUCATIONAL LEADERSHIP

Numerous concepts have been used to study educational administration and the educational leader. Each has its purpose and utility, depending upon the focus of attention, and each has its limitations and shortcomings, depending upon the range and intensity of interest.

It is not the purpose of this chapter to present a critique for, or expand upon, each construct, but only to offer evidence of past or present usage by students in the field, of a variety of ways of looking at the school superintendent and his work. For each method of study, numerous illustrations can be found. Here, only repre-
sentative or better known examples are offered.

The Functions of Administration

One of the most common methods used to examine administration and leadership is through the functions. Chester I. Barnard, whose orientation is primarily in the field of business and industry but who nevertheless is also a student of organizations and human behavior in them, has presented and discussed the essential functions of the executive under three major headings: (1) the maintenance of organization communication, a problem of obtaining the coalescence of the scheme of organization and an executive personnel; (2) the securing of essential services from individuals, a problem of bringing persons into cooperative relationship with the organization and of eliciting services and applying effort after such persons have been brought into that relationship; and (3) the formulation of purposes and objectives, the problem of stating, redefining, breaking into details, and deciding on the innumerable simultaneous and progressive actions, and of the delegation of objective authority. 20

The 1952 Yearbook Commission of the American Association

20 Chester I. Barnard, The Functions of the Executive (Cambridge, Massachusetts: Harvard University Press, 1948), Chapter XV.
of School Administrators has analyzed the functions of the superintendent under eight headings:

1. Planning and evaluation, which overlie all the other functions.

2. Organization of the units and services of the school system, which establishes the framework and foundation for the other functions.

3. Personnel administration, which in part establishes the operating conditions necessary to the instructional process.

4. Business, finance, and school plant administration, which also help to establish and maintain the necessary operating conditions.

5. Auxiliary service administration, which likewise bears upon operating conditions.

6. Providing and receiving information and advice, in order to share knowledge and ideas necessary to planning and operation.

7. Co-ordination, which binds together persons, services, and materials so that they may contribute to instruction and learning.

8. Instruction, to which the superintendent contributes by planning for the process and bringing all other elements of the
school into a relationship useful to that process. 21

The Elements of the Administrative Process

Another method of examining administration is through the elements of the administrative process. In the analysis of Ordway Tead, two interrelated aspects of the administrative task are noted: (1) a concern for process, and (2) a concern for persons. He sees executive action as the effort to achieve a productive interrelation of processes and persons. The elements which define the responsibilities of administration as a total process are as follows:

1. To define and set forth the purposes, aims, objectives or ends of the organization.

2. To lay down the broad plan for the structuring of the organization.

3. To recruit and organize the executive staff as defined in the plan.

4. To provide a clear delegation and allocation of authority and responsibility.

5. To direct and oversee the general carrying forward of the activities as delegated.

6. To assure that a sufficient definition and standardization of all positions have taken place so that quantity and quality of performance are specifically established and are assuredly being maintained.

21 American Association of School Administrators, _op. cit._, pp. 80-102.
7. To make provisions for the necessary committees and conferences and for their conduct in order to achieve good coordination among major and lesser functional workers.

8. To assure stimulation and the necessary energizing of the entire personnel.

9. To provide an accurate evaluation of the total outcome in relation to established purposes.

10. To look ahead and forecast as to the organization's aims as well as the ways and means toward realizing them, in order to keep both ends and means adjusted to all kinds of inside and outside influences and requirements.  

Sears follows the rationale of Fayol in analyzing the administrative process, but he has adapted it to educational administration. He emphasizes the unity of administration and the interrelation of the elements involved. Five different kinds of activity are noted as characteristic of the process:

1. Planning, which involves getting ready to decide or act upon a problem or a piece of work. The process is viewed as three-dimensional in that time, the work to be planned for, and the characteristics of the planning activity must be considered.

2. Organizing, which involves creating the machinery to do the work. The major aspects of the process are defining purposes,

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discovering the functions required in the service, assigning responsibilities, developing mechanical devices to facilitate working together, apportioning authority to fit responsibility, and understanding where knowledge is to be relied upon.

3. Directing or commanding, which is authority on the move, guided and controlled by the will of the officer. Direction originates in or is preceded by planning, it becomes evident through the activities of the recipients of the orders, and it is rounded out by an inspection of results.

4. Co-ordinating, which involves keeping the elements of purposes, processes, people, and things in harmony so that there may be unity of effort toward a chosen objective. Three stages appear in the process: diagnosis, which has to do with the discovery and study of the relationships in question; prescription, which anticipates the problems of execution and which plans for effecting the co-ordination; and execution, through which the plan is empowered and the changes are put into effect.

5. Controlling, which in Sears' terminology involves establishment and application of bases for evaluating, judging, deciding, or acting. It may be studied in terms of the nature of the power that affects it; in terms of the devices or techniques through which the power becomes effective, is made available, or is
brought to bear in management; in terms of the process of applying the power to determine whether purposes, plans, policies, orders, and assignments are being carried out, and how effectively; or in terms of the purposes or end sought. 23

The Work of the Chief Executive in Administration

A third way to study administration and the administrator is by looking at his work or activity. Because he felt that the words "administration" and "management" had lost all specific content, Gulick analyzed the work of the chief executive through the mnemonic device POSDCORB, an adaptation of Fayol's functional analysis. Gulick identifies the following activities: (1) planning; (2) organizing; (3) staffing; (4) directing; (5) co-ordinating; (6) reporting; and (7) budgeting. 24

Barnard, in discussing the nature of leadership, identified four sectors of leadership behavior which are applicable to educational leadership: (1) the determination of objectives, which involves knowing and saying what to do, what not to do, where to go, and when to stop, with reference to the objective of the undertaking;


(2) the manipulation of means, which is concerned with the direction of detailed activities that are parts of the technical procedures and technological operations as the subsidiary means and instruments of accomplishing specific objectives; (3) the control of the instrumentality of action, which implies maintenance and guidance, through co-ordination and cooperation, of the organization (the instrumentality) as a whole system of activity; and (4) the stimulation of co-ordinated action, which consists of inducing people to convert abilities into co-ordinated effort, thereby maintaining the organization while at the same time getting its work done.

The Substance of the Field of Educational Administration

Another method of looking at educational administration is to examine the substance or subject matter of the field. Sears identifies the following components of the subject matter of school administration:

1. Establishing educational purposes by expressing them in the form of aims and a program of work to be accomplished, e.g., laying out its work.

2. The development and organization of a personnel and the necessary finances, housing, materials, and facilities for carrying on the work.

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3. The procedures and techniques for the performance of the work, including the policies and the plans to guide it.

4. The nature and use of the authority (legal, scientific, social, and personal) by which administration operates.

5. The origin and the nature of the aims and processes by which administration operates.

6. The nature of the mechanism by which authority and knowledge are applied in the process of administration.  

Sears notes that the first three of these items are concerned with the practice of administration, while the last three deal with the theory or philosophy underlying the practice.

Further evidence of the subject-matter approach to the study of educational administration and the work of the superintendent may be found in The Ohio State University program for meeting the minimum legal requirements for the superintendent's provisional certificate. Required courses are listed in the areas of Educational Organization, School Law and School Finance, Supervision of Instruction, School Curriculum, and the School in the Social Order.  

26Sears, _op. cit._, p. 9. See also Chapter 12, entitled "Our Approach to a Study of the Problem of Subject Matter."

27"Certification Patterns for Ohio Provisional Administrative Certificates at The Ohio State University," prepared by the Committee on Educational Administration (Columbus, Ohio: Department of Education, The Ohio State University, June 1, 1956), p. 4 (mimeo.).
The examination of a table of contents of any standard textbook prepared for a first course in educational administration will show similar subject matter. Reeder, for example, presents the fundamentals of public school administration in seven parts: (1) Administrative Personnel and Organization; (2) Administration of Instructional Employees; (3) Administration of the School Plant; (4) Administration of School Business Affairs; (5) Administration of Pupil Personnel; (6) Administration of Instructional Materials; and (7) Special Phases of School Administration (School Accounting, Public School Relations or Publicity, and School Office Administration). 28

The Qualifications and Competencies of an Educational Administrator

In analyzing the kind of person an educational administrator is, or should be, attention has been directed to qualifications and competencies of the person. The National Conference of Professors of Educational Administration have identified a number of desirable personal qualifications:

1. An administrator is a person with vision.

2. An administrator is increasingly competent in employing democratic and democratic-tending techniques of group action.

3. An administrator assumes the responsibility for providing organizational machinery to facilitate the operation of democratic leadership.

4. An administrator fosters a psychological atmosphere in which democratic leadership can flourish.

5. An administrator, in the execution of his own legal responsibilities, exemplifies belief in democratic leadership relations.

6. An administrator sets the example of evaluating results in terms of total achievement toward democratic ideals, rather than solely in terms of some immediate objective.

7. An administrator consistently demonstrates his conviction that democracy leads to efficiency.

8. An administrator seeks to achieve—not exercise—leadership through the contributions he makes to the success of the group's efforts.

9. An administrator is a talent scout and a coach.

10. An administrator is responsible but not overburdened by
his responsibility. 29

The committee on Educational Administration at The Ohio State University, in cooperation with the School-Community Development Study and with a number of field advisors who were practicing administrators, presented a statement of competencies needed by school administrators. This statement has been summarized as follows:

1. Possession in reasonable degree of appropriate personal attributes and a disposition to improve them

2. Understandings, attitudes, and skills resulting from an adequate general education

3. An understanding of the role of the school in the social order

4. A disposition and an ability to cooperate with other people in planning, executing, and evaluating courses of action

5. An understanding of the instructional program and skills in curriculum development

6. Understandings and skills in the technical aspects of school administration

7. An understanding of and skills in the administrative process

8. An ability and a disposition to apply sound problem solving procedures to school concerns

9. An inclination to act in terms of conscious value judgments

10. An inclination and an ability to understand one's own motivations for action and how they affect his way of working with other people

11. A disposition and an ability to lead lay and professional people in considering and continuing improvement of the school and community, and the ability to discover and promote such leadership in others.  

The Qualities or Traits of an Administrator

In looking at administration through the qualities of the administrator, Barnard has listed five qualities in order of importance as regarded for very general purposes, recognizing that there may be some disagreement with that order:  

1. vitality and endurance, which quality is more than health; it is energy, alertness, spring, vigilance, and similar dynamic qualities;  
2. decisiveness, which is not only the capacity to make decisions, but also the propensity to do so;  
3. persuasiveness, which also involves

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both an ability and a willingness to persuade; it further involves a sense or understanding of the point of view, the interests, and the conditions of those to be persuaded; (4) responsibility, which Barnard describes as

an emotional condition that gives an individual a sense of acute dissatisfaction because of failure to do what he feels he is morally bound to do or because of doing what he feels he is morally bound not to do, in particular concrete situations; \(^{32}\)

and (5) intellectual capacity, which Barnard feels is not a substitute for the other essential qualities.

A further reference to the traits approach is made later in this chapter, as a part of the discussion on research in leadership.

The Fundamental Beliefs of an Educational Administrator

A final suggested construct for studying educational administration is that based upon fundamental beliefs. The nature and the process of administration is conditioned by these beliefs, and consequently this construct has proved to be a useful one for looking at administration.

The 1951 Subcommittee on Philosophy, of the National Conference of Professors of Educational Administration, issued a declaration of fundamental beliefs for their own use in guiding their efforts

\(^{32}\)Ibid., pp. 94-95.
toward the preparation of school administrators. The list suggests the possibility of discovering bases for administrative activity in the commitments of public education to fundamental beliefs about society and the role of education serving it. 33

The declaration affirms belief in: (1) the application of intelligence to life problems; (2) the necessity of social group action; (3) a respect for the individual; (4) the need for functional social organization; (5) the school administrator as a group instrument; (6) freedom of communication; (7) the administrator as a leader; (8) the administrator as an educator; (9) the dedication of public education to community betterment; (10) school-community integration in education; (11) the evaluation of administration in terms of processes and of outcomes; (12) professional integrity and responsibility; and (13) the necessity for professional growth. 34

These have been some of the ways of looking at administration and at the administrator. The list is not complete and the examples do not exhaust the field. It is intended only that a review


34 The unpublished report is cited by Hagman and Schwartz, op. cit., pp. 301-305. (Orin Graff and Harlan L. Hagman were co-chairmen of the Subcommittee.)
of representative efforts be presented as a setting for the present study.

IV. RESEARCH IN LEADERSHIP RELATED TO EDUCATIONAL ADMINISTRATION

During the past ten or fifteen years, considerable research has been in progress in relation to leadership and leader behavior. Some of this research has been conducted outside the field of educational administration, but is quite appropriate to the study of the field; some of it has dealt directly with educational administration and the educational leader.

For the purpose of this study, Hemphill's definition of a leader seems to be appropriate. He says that "to lead is to engage in an act which initiates a structure in the interaction of others as a part of the process of solving a mutual problem."35 According to this definition, differentiation of the leader is made in terms of the frequency of his performance of leadership acts or functions.36


36 Ibid., p. 10.
Leadership Traits

A great deal of attention of the earlier research in, and analysis of, "the leader" was devoted to a search for leadership traits. Some of the more commonly claimed leadership traits were: (1) physical and constitutional factors, including height, weight, physique, energy, health, and appearance; (2) intelligence; (3) self-confidence; (4) sociability; (5) will, including initiative, persistence, and ambition; (6) dominance; and (7) surgency, involving talkativeness, cheerfulness, enthusiasm, expressiveness, alertness, and originality. 37

Gibb has summarized the relation between personality traits and leadership thus: (1) reviews of the numerous studies of the personalities of leaders have failed to find any consistent pattern of traits which characterize leaders; (2) there is abundant evidence that member personalities do make a difference to group performance, and there is every reason to believe that they do affect that aspect of the group's behavior to which the leadership concept applies; and (3) the failure of many researches to establish a definitive relation between personality and leadership may be due

to the fact that personality description and measurement themselves are not yet adequate, or that the groups studied have usually been markedly different, or that leadership itself is known to be a complex, and probably not consistent, pattern of functional roles. 38

Dimensions of Leader Behavior

In an effort to get at what leaders actually do, a number of empirical studies have been made to classify and analyze leader behavior.

Carter reports an analysis of outstanding leadership displayed by successful personalities, both civilian and military. On the basis of this analysis, eleven leadership principles or dimensions have been adopted by the United States Army. The principles involve the following kinds of behavior: (1) knowing the job; (2) knowing oneself and seeking improvement; (3) knowing subordinates and showing consideration for them; (4) keeping subordinates informed; (5) setting an example; (6) ensuring that the task is understood, supervised, and accomplished; (7) training men as a team; (8) making sound and timely decisions; (9) seeking responsibility and developing a sense of responsibility among subordinates; (10) employing the organi-

38 Ibid., p. 889.
zation in accordance with its capabilities; and (11) taking responsibility for one's action. 39

In a study of 640 Air Force officers, centering attention on effective and ineffective behaviors in definite situations, the American Institute for Research classified a large number of incidents into the following general areas of behavior: (1) handling administrative details and plans; (2) supervising personnel; (3) deciding, and directing and initiating action; (4) performing the professional or technical specialty; (5) accepting the team principle and organizational discipline; (6) demonstrating good habits of work; (7) adjusting to the job situation; and (8) adjusting to the off-duty situation. 40

Carter pointed out that the University of Rochester researches on leader behavior have resulted in the identification of three dimensions: (1) group goal facilitation, which implies effectiveness for achieving the goal toward which the group is oriented, and which contains elements of efficiency, insight, and cooperation;


(2) individual prominence, the dimension of behavior which makes the individual stand out from the group, and which is associated with the traits of influence, aggressiveness, leadership, initiative and confidence; and (3) group sociability, the dimension which indicates the positive social interaction of an individual in the group. 41

Perhaps the most significant and most complete researches in the dimensions of leader behavior have been those conducted by the Personnel Research Board at The Ohio State University. Nine a priori dimensions of leader behavior were postulated: (1) initiation; (2) membership; (3) representation; (4) integration; (5) organization; (6) domination; (7) communication; (8) recognition; and (9) production. 42 Halpin and Winer then proceeded to apply Leader Behavior Description scales to the activities of B-29 aircraft commanders. The analysis of the obtained data revealed four dimensions: (1) consideration, which accounted for 49.6 percent of the common variance; (2) initiating structure, which


42 John K. Hemphill and Alvin E. Coons, Leader Behavior Description (Columbus, Ohio: Personnel Research Board, The Ohio State University, 1950), pp. 5-6 (mimeo.).
accounted for 33.6 per cent of the variance; (3) production emphasis, which accounted for 9.8 per cent of the variance; and (4) sensitivity, or social awareness, which accounted for 7.0 per cent of the variance. 43

Halpin later applied the Leader Behavior Description Questionnaire to sixty-four superintendents of Ohio schools and then made a comparison with 132 aircraft commanders. The two dimensions analyzed in this investigation were Initiating Structure and Consideration. The results showed that: (1) superintendents showed more Consideration behavior and less of Initiating Structure than did aircraft commanders; (2) the leaders' beliefs about their leadership behavior were not highly associated with their leadership behavior as described by their group members; (3) commanders showed significant correlations between the Consideration and the Initiating Structure scores; superintendents did not; superintendents to a greater extent than commanders treated the two dimensions as independent; (4) superintendents in the "off-quadrants" tended to cluster in the quadrant characterized by below-mean behavior in

43 Andrew W. Halpin and Ben J. Winer, The Leadership Behavior of the Airplane Commander (Columbus, Ohio: The Ohio State University Research Foundation, 1952), pp. 27-30.
Initiating Structure and above-mean behavior in Consideration; the reverse was true for commanders.\(^4^4\)

In one of his most recent studies, Halpin has analyzed the leadership behavior of fifty school superintendents.\(^4^5\) In summary, he writes that

the evidence from the present inquiry shows that effective leadership in the case of a school superintendent is characterized by high Initiation of Structure and high Consideration. These two dimensions of leader behavior represent fundamental and pertinent aspects of the superintendent's leadership skill.\(^4^6\)

Halpin hastened to point out that these two dimensions do not constitute the only criteria of leadership effectiveness, but they do represent a criterion that is significant in evaluating the leadership skill of the superintendent.


\(^{45}\) Andrew W. Halpin, The Leadership Behavior of School Superintendents, School-Community Development Study Monograph, No. 4, CPEA Series (Columbus, Ohio: University Press, The Ohio State University, 1956).

\(^{46}\) Ibid., pp. 85-86.
Critical Requirements for Effective School Administrators

In seeking to learn the critical requirements for effective school administrators, Sternloff employed the Critical Incident Technique developed by Flanagan. The data collected yielded 128 critical requirements which were regrouped as twenty-seven general descriptions of the behavior of effective school administrators. These twenty-seven basic general behaviors were then regrouped under five associated behavioral requirements:

1. developing and supporting educational policy;  
2. promoting cooperative study and activity;  
3. accepting responsibility for initiating and directing action toward educational improvement;  
4. displaying personal effectiveness; and  
5. administering personnel effectively.

Among Sternloff's conclusions were these: (1) school administrators demonstrated more effective than ineffective behavior in the administration and organization of instruction and pupil services.

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and in the management of the fiscal and business aspects of the school system; (2) they displayed more ineffective behavior in relation to the administration of staff personnel than in any other aspect of administrative responsibility; (3) they demonstrated greater ineffectiveness than effectiveness in relation to administrator-school board relationships; and (4) they apparently behaved effectively and ineffectively in almost equal proportion with respect to the direction of school-community relationships.

**Success Criteria for Educational Administration**

In attempting to find a way to determine where, or under what circumstances, educational administration is successful, Garland established from the literature and selected research in the field of educational administration, nine success criteria. Each criterion was described in terms of administrative behavior and then tested in limited field observations. Garland found that effective educational administration: (1) employs a creative approach to matters of educational concern; (2) promotes and secures the professional growth of the people connected with and related to the educational enterprise; (3) manifests high ability in the assessment of values, purposes, needs, and in their translation into realistic educational goals; (4) exhibits skill in appraising the manner in which existing
situational factors will affect the attainment of goals; (5) establishes and maintains an appropriate climate which enables effective contributions to be made by those involved; (6) initiates and maintains procedures and structures which enable broader participation in the administrative process; (7) secures an effective utilization of all available resources; (8) envisions the totality of administration and integrates its component elements to secure established objectives; and (9) provides for systematic review of all phases of the educational venture and effects desirable reconstructions. 49

Critical Areas of Behavior and Factors Affecting Educational Administration

A major portion of the research efforts of the School-Community Development Study has been devoted to identifying the factors in the total administrative situation which alter, modify, or in any way affect administrative behavior, and to studying the nature of these effects with a view toward improving administrative behavior.

through the objective use of the knowledge. 50

As the result of the first phase of the research program, two kinds of information were obtained. First, a set of nine critical areas of administrative behavior were identified. These areas appeared to be of critical importance in the improvement of the educational program in the situations observed. They included:

1. setting goals;
2. making policy;
3. determining roles;
4. coordinating administrative functions and structure;
5. appraising effectiveness;
6. working with community leadership to promote improvements in education;
7. using the educational resources of the community;
8. involving people; and
9. communicating. 51

A second kind of information resulting from an analysis of the data in the early research concerned factors which were presumed to affect the quality of administrative behavior in the critical areas. Those factors which were considered interpersonal were related to

1. beliefs and attitudes of individuals in the school-community;
2. basic abilities and understandings of individuals in the school-community;
3. intellectual processes characteristic of individuals


51 Ibid., p. 20.
in the school-community; and (4) social-psychological factors of individuals in the school-community. Those factors which were considered environmental related to: (1) community expectations and traditions; and (2) community characteristics. A total of thirty-seven factors were identified. 52

It was within this setting that the present study undertook to define more adequately and to analyze the administrative behavior of the superintendent within the framework of the critical areas.

V. SUMMARY

Much has been written about the superintendency, educational administration, and educational leadership. Earlier efforts to develop a theory and a science consisted of extracting specialized information which described or characterized educational administration. In a broad sense, these efforts defined the field.

More recently, attention has been directed to the behavioral acts of the administrator and to the variables which affect those acts. It has become quite apparent that no simple formula for successful administration can be presented; the variables are too numerous and complex. Any "constant" which may be found to

52 Ibid., pp. 57-59.
exist in one situation may change in another; in fact, it may not even appear in the other situation. As a result, the problem of the administrator becomes one of seeing relationships and adapting and guiding his action and the action of others, on the basis of knowledge and experience, through those relationships toward the desired objective.

Administrative action and leadership are peculiar to no single area of human activity. Consequently, certain principles or patterns of action may be employed by the administrator or leader, regardless of his sphere of activity. The distinctions are made between the areas of human activity on the basis of the objectives sought, by identifying the persons whom the administrative or leadership acts affect, and by noting the materials or commodities employed. But certain principles of action and certain processes are common.

Knowledge and understanding of educational administration are not complete at this point. There is no "rule book" specifying what should be done in every situation and how it should be done. The efforts of writers and researchers will be well rewarded if they can provide the educational leader with some insights, understandings, and guidelines for his action in his own administrative situation.
CHAPTER III

THE METHODOLOGY OF THE STUDY

This investigation is a descriptive research in the administrative behavior of ten Ohio city school superintendents, as they performed their professional duties in their own school systems and communities. It has its roots in, and is a part of, a continuing program of research started in 1951 by the School-Community Development Study.

I. THE DEVELOPMENT OF THE PLAN

During its formative stages, this study enjoyed a number of advantages not accorded to an isolated or independent research problem. A great deal of careful study and planning for long-range objectives had already taken place. Much exploratory research had been completed during the preceding three and one-half years. There was the definite prospect, if not the complete assurance, that additional studies would follow and that this research might find some of its ultimate value in those subsequent studies. And finally, the importance and need of research in this field of investigation had already been recognized nation-wide. All of these factors combined
to place upon the present researcher a sense of responsibility for careful planning and conducting of the investigation.

But, by the same token, the nature of the problem and its position in the "flow chart" of the overall program necessitated the meeting of certain requirements not always found in independent studies. More than casual attention had to be given to the problem of co-ordinating this study with the efforts of the School-Community Development Study and of fitting it into a general pattern so that it would make a maximum contribution within the limits of time imposed upon it. Further, the starting point and the general framework within which the study was to take place had been somewhat predetermined. Finally, as the study progressed, certain boundaries had to be observed and certain adjustments were necessary to insure a degree of uniformity of procedure and a comparability and utility of results. These conditions were not seen as disadvantages; they were merely requirements of the situation.

**Clarification of the Problem**

In order to clarify, define, and limit the problem, a careful review was made of the method and techniques and of the data obtained in the pilot studies which had previously taken place in the
cooperating centers. Many of the original contact reports were read in entirety to learn the nature of the data obtained and to secure ideas, the further pursuit of which might prove fruitful.

Definition of the problem was also facilitated through meetings of the School-Community Development Study staff. Ample opportunity was provided in these meetings to examine the relationships of the proposed investigation to the entire program of the Study.

Over a period of about three months, the objectives and the broad limits of the investigation began to take shape. General agreements were reached concerning what needed to be done as next steps in the five-year program.

Selection of the Research Method

It was at this point that a more thorough study of possible methods and techniques began. It soon became apparent that the problem was not one of availability of a method for this type of investigation, but rather was one of selection of a method which could

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2 Ibid., pp. 130-133.
be adapted most effectively to the requirements of this particular investigation.

As a result of a study of some of the literature on methodology in the behavioral sciences, on the basis of suggestions made by persons engaged in, and experienced in, social research, and on the basis of certain limitations within which the investigation was to be conducted, the method of direct observation was chosen as the means of obtaining the data.

A number of advantages are present in the method of direct observation. It permits the recording of behavior as it happens. If one is asked to recall past behavior or to anticipate future behavior, there is an element of detachment which could result in a distortion of the evidence, particularly at the level of interpretation. The method does not depend upon the subject's ability to report objectively. It may provide data on acts which escape the subject's awareness. And the method is quite independent of the subject's willingness to report. Many school superintendents feel that they do not have the time to fill out research questionnaires; some take time, but do the job rather haphazardly. In the data of

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the present study may be found the case of one superintendent who, upon receiving a rather lengthy questionnaire, said he felt that some researchers were getting lazy. Although observation places some demands for cooperation upon the subject, it is less demanding than certain other methods of gathering data. Then, too, some persons do not want to be singled out for interviews or questioning when the purpose of the interview or questionnaire or the use of the data is not clear.

The method of observation also has some disadvantages. The spontaneous manner in which many events and behaviors occur means that they can not be predicted, and hence the observer may not be present to observe them. Another limitation is found in the duration of events. It is not always possible to see an incident or event to its conclusion. Hence, the end result of the observed behaviors can not always be determined. This is a rather serious limitation when primary attention is being directed to an evaluation of effectiveness of behavior. Then, there are occurrences or behaviors which the subject may not want to submit to observation, and which are blocked or delayed until after the observer has left the scene. Finally, it is almost impossible to get a complete

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4 Ibid., pp. 132-133.
record, even of simple events, much less of complex events. Consequently, the choices of what is accepted and what is rejected depend upon the observer and upon his application of any controls which might have been established.

The Research Team Approach

It seems appropriate to mention one factor in the planning and carrying out of the research which undoubtedly has made the investigation more valuable and which might provide a suggestion for future research activity. From its inception, the study benefitted from cooperative endeavor.

The research team was composed of four men, all of whom had been public school teachers. Two had been high school principals, one had been an executive head of a local school district, and one had been a university instructor in education. Each had been acquainted with the others for at least two years prior to the beginning of the research. And all had at least one common objective in connection with their graduate studies.

As was pointed out in Chapter I, the four concurrent studies were planned and conducted simultaneously. For a period of about three months, conferences and discussions were held with the advisory committees of the team members, with the staff, project
co-ordinators, and associates of the School-Community Development Study, with persons from the Bureau of Educational Research and from the Personnel Research Board at The Ohio State University, with representatives of the Ohio Conference of Professors of Educational Administration, and with out-of-state representatives of some of the other centers in the Cooperative Program in Educational Administration. Suggestions were sought, ideas were explored, and proposals were examined and criticized.  

Concurrently and for a period of about six months, the members of the research team met informally, and almost daily, to exchange ideas, discuss plans, and report progress achieved or obstacles encountered. At practically all of the stages from the planning of the projects up to the writing of the reports, a great deal of interaction between team members took place.

II. SELECTION OF THE SUBJECTS

After a consideration of a number of limitations within which the research was to be conducted, a principal one being time, it was decided that ten superintendents would be an acceptable sample from

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5See Appendix A for a sample of the reports of these meetings.
which to obtain the behavioral data. This decision was based on a compromise between the desire to observe a large sample and the advisability of observing each subject over an extended period of time. The projected schedule for the observations of ten men on at least four different occasions indicated that most, if not all, of the remaining three months of the school year would be required to complete the field observations, consideration being given to the recording of the data obtained and to certain other commitments of the observer.

In view of the 4,190 behavioral descriptions admitted to the data, plus an additional 341 descriptions recorded but rejected because of failure to meet the criteria, it would appear that an adequate sample of behaviors had been obtained for the purposes of this study.

At the time the selection of subjects was made, there were 135 city superintendents of schools in Ohio. Because of the uniqueness of their administrative situations and because of anticipated irregularities and procedural difficulties in observation, eight men were dropped from the possible field of subjects. These men

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were superintendents in cities having more than 100,000 population. Another district involved only elementary schools, and one superintendent had accepted another position out of the State and would not remain in Ohio through the duration of the observations. The choice of the ten subjects, therefore, was made from a field of 125 candidates.

The Use of a Jury

Since the second hypothesis of the study involved a qualitative analysis of behavior, it appeared desirable to use a jury of experts in the selection of the subjects. Since a rating scale was to be used in the selection process, and since "pooled judgments increase the accuracy of any rating scale," seven eleven persons were asked to serve on the jury. Selection of the members of the jury was made on the basis of reputation for expertness in the field of educational administration, contacts with superintendents, and peer association with superintendents. Regional representation throughout the State was secured through five professors of educational administration at five State universities. By virtue of their professional experience and

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positions, these men were recognized as experts in the field of educational administration. A representative of the State Department of Education, a field representative of the Ohio Education Association, a former representative of the Division of Appointments, and a representative of the Bureau of Educational Research at The Ohio State University were thought to insure judgments based on professional contacts. Two practicing superintendents of schools, not included in the list of subject candidates, completed the jury and provided peer judgments. In fact, it was felt that all jurors met all of the criteria. It is worthy of note that all of the men requested to serve on the jury complied with the request.

Materials Sent to Jurors

Since the jurors performed their service independently and anonymously and since they were scattered over the State, it was necessary to handle mechanical details through correspondence. 8

The first contact with the jurors was through a prestige letter from the Associate Director of the School-Community Development

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8See Appendix B for samples of materials forwarded to members of the jury.
Study, requesting the assistance of the juror. Included in the same mailing was a letter from the researcher describing the nature of the services sought. With this letter went a set of directions, a rating scale containing the names and locations of 125 superintendents who were subject candidates, and a return envelope coded only by the study symbol "S."  

A follow-up letter to the jurors was dispatched about ten days later. Then, after all of the field observations had been completed, a letter of appreciation was sent to each member of the jury.

**The Rating Procedure**

The ratings were prepared by the jurors independently and anonymously. In making the ratings, jurors were asked first to check the names of the superintendents with whose administrative

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9The Associate Director was serving as an acting director at this time.

10The purpose of this code was to forestall inadvertent opening of the letter by the researcher. The ratings were not to be seen by the researcher until all of the data had been gathered, processed, categorized, and tabulated. Since, in each of the concurrent studies, three members of the research team served as the final selection committee for the fourth member, each member had occasion to open envelopes containing ratings involving the subjects of three other studies.
performance they were familiar. The jurors were then asked to describe these superintendents on the quality "overall administrative effectiveness," by placing a check mark in one of four subcolumns ranging from "This superintendent is one of the most effective administrators checked in Column B" to "This superintendent is one of the least effective administrators checked in Column B."\(^{11}\)

The ratings were forced to the extent that jurors were asked to place one-fourth of the rated superintendents in each of the four columns of the scale. As will be noted in Table I, jurors in the present study were inclined to rate more superintendents in Column 2 ("This superintendent is in the upper half, but is not one of the most effective among those checked in Column B"), and they were reluctant to rate superintendents in Column 4 ("This superintendent is one of the least effective administrators checked in Column B"). However, due to the fact that the selection committee centered primary attention on Column 1 ("most effective") and Column 4 ("least effective"), these tendencies did not seriously handicap the committee.

\(^{11}\)See Appendix B, Exhibits 3 and 4, for a set of the directions and a sample of the rating scale.
<table>
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<tr>
<th>Juror</th>
<th>Number of Superintendents Rated</th>
<th>Most Effective (Group 1)</th>
<th>Upper Half but not Most Effective</th>
<th>Lower Half but not Least Effective</th>
<th>Least Effective (Group 4)</th>
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</table>

Total 550 125 190 137 98

Per Cent of Total 100.00 22.73 34.55 24.91 17.82
The Selection Procedure

A committee, composed of the three other members of the research team, made the final selection of the subjects for this study. They were asked to choose five superintendents who were most frequently described as most effective (Group 1), and five superintendents who were most frequently described as least effective (Group 4).

It was assumed that the choice of subjects at the extremes would make possible clearer differentiations in behavior, that it would represent adequately the total range in the quantity and quality of behavior, and thus that it would include the limits within which the quantity and quality of the intervening groups might reasonably be expected to fall.

In case the ratings of the jurors made it difficult to distinguish between candidates within a group, the selection committee was asked to consider geographical location, giving preference to the superintendent located nearest the center of operation of the study.\footnote{That travel time was a factor to be considered may be seen from the fact that the sum of the round-trip distances between each location of the finally selected subjects and the study center, for a single observation of each superintendent, totaled approximately 1,507 miles. Four observations were made of each superintendent.}
Neither the ratings by the jury nor the group placement by the selection committee were known to the researcher until after all of the data had been gathered, processed, categorized, and tabulated. Only the names and locations of ten superintendents to be observed were presented to the researcher by the selection committee. The purpose of this control was to prevent, as far as possible, any distortion of the data by the researcher during the gathering and the processing of the data, such possible distortion arising from knowledge of rated effectiveness.

A code number was assigned to each superintendent for purposes of recording and processing the data. These code numbers were later changed, by lot, for purposes of analysis and reporting.

Table II provides a summary of the jury ratings of the superintendents finally selected, and of the group placement by the selection committee. Of the total ratings (forty-five) made for the five subjects placed in the most effective group by the committee, 80.0 per cent, or thirty-six ratings, were in Group 1. Of the total ratings (twenty) made for the five subjects placed in the least effective group by the committee, 90.0 per cent, or eighteen, were in Group 4.

It should be pointed out that the subjects in Group 1 did not necessarily exhibit only most effective behaviors. Likewise,
subjects in Group 4 did not necessarily exhibit only least effective behaviors. The very fact that all of the subjects were occupying superintendencies at the time of the observations and were fulfilling some responsibilities would seem to indicate that all did perform effectively at certain times. None could be considered failures. The phenomenon under study was the pattern of behavior of the most effective group as compared with the pattern of behavior of the least effective group.

One additional point of information may be of interest. Of the group of superintendents observed, three were located in cities with populations from 30,000 to 99,999; five were located in cities with populations from 10,000 to 29,999; and two were located in cities with populations from 5,000 to 9,999. Of the three superintendents in cities of 30,000 to 99,999 population, all were rated as most effective by the jurors. Of the five superintendents in cities of 10,000 to 29,999 population, two were rated as most effective and three were rated as least effective by the jurors. Both superintendents in cities of 5,000 to 9,999 population, were rated as least effective by the jurors.
TABLE II

SUMMARY OF THE JURORS' RATINGS AND GROUP PLACEMENT, BY THE SELECTION COMMITTEE, OF THE TEN SELECTED SUPERINTENDENTS

<table>
<thead>
<tr>
<th>Subject by Group</th>
<th>Group 1 (Most Effective)</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4 (Least Effective)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>S-4</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>S-5</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>S-7</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>S-9</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36</strong></td>
<td><strong>8</strong></td>
<td><strong>1</strong></td>
<td><strong>0</strong></td>
<td><strong>45</strong></td>
</tr>
</tbody>
</table>

Least Effective:

<table>
<thead>
<tr>
<th>Subject by Group</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4 (Least Effective)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>S-3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>S-6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>S-8</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>S-10</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0</strong></td>
<td><strong>0</strong></td>
<td><strong>2</strong></td>
<td><strong>18</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>
III. THE ORIENTATION VISITS

Since accessibility to the superintendent and to his administrative situation depended largely upon the success of the first contact, and since the first contact was expected to provide the observer with some additional insights and information having a direct bearing upon subsequent observations, considerable planning went into the orientation visits.

The Purposes of the Orientation Visit

The orientation visit was seen as an opportunity to achieve several purposes. Of primary importance was the problem of securing the cooperation and confidence of the superintendent. Unless there was a willingness to permit the observer to see the subject in normal operation, the investigation would be blocked, at least in this situation. Unless the researcher could observe a natural situation, unless he could enter the situation without seriously disturbing it, the validity and reliability of the observations would be open to question. It was a purpose of the orientation visit to get the superintendent to "open the door" to the observer.

A second purpose of the orientation visit was to give both the superintendent and the researcher some indications of what might
be expected in subsequent visits. A first contact could help to remove some of the "strangeness" which might result from the rather close personal association which was to follow. If, through a mutual discussion, the observer could anticipate and plan for problems which might be faced later, the results of the observations might be more satisfactory.

A final purpose of the orientation visit was to give the researcher an opportunity to gather data and to put his proposed procedure to a field test. A practice session could suggest necessary revision of plans before the half-day observation periods began.

The First Contacts with the Subject

The first approach to the superintendent was through a telephone call. This call was made to inform the prospective subject that a School-Community Development Study research project was in progress, and to request an appointment with the superintendent to explain the nature of the project and to learn whether he would be willing to assist in the project. The telephone contact was chosen over a previously planned written communication for two reasons: (1) it was a more personal and direct approach and it placed some importance on the matter; and (2) it would save time and permit the field work to begin at an earlier date. As a result of the telephone
calls, appointments were scheduled with each of the subjects in the original sample.

The first personal contact in connection with the investigation was made with the superintendent during the orientation visit. It was explained that the School-Community Development Study had reached a point in its work where it seemed both desirable and necessary to spend some additional time in the field looking at and studying educational administration as it takes place. It was pointed out that the focus of attention would be upon what the administrator does, not upon the administrator as a particular individual. The superintendent would be viewed chiefly as a vehicle through which to observe administrative action.

No mention was made, except in very general terms, of the specific categories of behavior being studied or of the details of the method of selection of superintendents to be observed. Other superintendents in the study were not identified.

The superintendent was assured of anonymity in the study and that no report of individual results would be forwarded to the board of education or the staff with whom the superintendent was working. The superintendent was also informed that it was not the researcher's purpose to observe and then rate the superintendent as an individual.
The orientation visits ranged in length from about thirty minutes to two hours, depending largely upon the superintendents' interests and desire to talk with the researcher. The average length of these visits was about an hour and fifteen minutes.

During the orientation visit, no notes were taken in the superintendent's presence. However, before leaving the city, notes on the behaviors observed were made from memory. These notes were used in dictating a record of the observation as soon as the researcher returned to the center of operation.

**Results of the Orientation Visits**

With one exception, the researcher was cordially received by the prospective subjects. There were, however, some noticeable differences in reactions to the proposal. Four of the men who had been rated by the jury as most effective were very warm in their reaction; they made themselves immediately available to the purposes of the researcher. The fifth man in this group was a little hesitant until he learned that he would not be called upon to devote special time and attention to the project. He was then quite willing to participate. None of this group appeared to have any hesitancy whatsoever to submit his behavior and administrative action to close scrutiny.
In one case, it was necessary for the selection committee to name a substitute before the beginning of the half-day observations, because of the refusal of one subject candidate to cooperate in the investigation. In no uncertain terms, the candidate notified the researcher that he would not have someone following him around all day, that he could not be bothered with the researcher, and that "I have my own way of handling things and I don't want you or anybody else around." Although the researcher tried several different approaches in attempting to secure the opportunity to observe, it finally became apparent that further pursuit of the objective was useless. It was later learned that all of the ratings made for this superintendent had placed him in the least effective group. No further data obtained from this person are contained in this report.

Two of the subjects who had been rated by the jury as least effective gave their consent to the proposal rather readily, although one of them appeared to want the observer to note that the subject candidate had some doubts about the value of the project. Three of the men in this group were somewhat apprehensive about the proposal and they were rather reluctant to give approval. Two of these three wanted assurance that no reports would be made to their respective boards of education or to their newspapers or to their staff or teachers. All of the three who evidenced apprehension
consented finally to cooperate, possibly because they felt that a refusal would cast an unfavorable reflection upon them. Four of the five men in the least effective group showed signs of hesitancy to submit their behavior and administrative action to close scrutiny.

One factor which seemed to have a bearing upon the decisions of the subjects to cooperate was their knowledge of, or acquaintance with, the School-Community Development Study and its work. All of the subjects had heard of the Study and all but one had had some contact with it. The prestige factor of the sponsoring organization worked to the advantage of the researcher.

As a result of the orientation visits, tentative schedules for the observation periods were suggested. After all of the subjects had been contacted personally, a letter was sent to each superintendent proposing a schedule of observation periods which could be followed by the researcher and which would be satisfactory with the superintendents.13

Finally, the orientation visits provided the observer with behavioral data which could be processed and examined. At this stage, more interest was directed to the criteria for admissible data, to observational procedures, to recording, dictating, and

13 See Appendix C for a copy of this letter.
editing the data, and to time requirements of travel and of completing the record of the observation, than to the actual analysis of the data. It was found, for example, that considerable time for recording had to be provided following each observation if the record was to be made as complete and accurate as possible. And as a result of these first visits, the recording techniques were considerably improved, and the researcher probably became more alert and sensitive to what he saw take place.

IV. THE OBSERVATIONS

The total elapsed time for all observation periods with the ten subjects, including the orientation visits, covered a period from March 23, 1955, through June 1, 1955. As soon as all orientation periods had been completed, the series of half-day observations began.

The Schedule of Observations

In order to insure an opportunity to observe typical situations and as wide a range of activity as this time of the year might permit, a schedule was arranged calling for two half-day and one full-day observation periods with each superintendent. The series of first half-days was completed before the series of second half-
days began. In each case, the half-day periods for each subject fell on a different day of the week and during a different part of the day. The morning observation periods averaged about three hours in length. The afternoon observation periods averaged about three and one-half hours in length.

Following the completion of all half-day observations, the series of full-day observations started. Except in the cases of three superintendents, the full-day observations were made on a day of the week different from any in the half-day observations for a particular subject. These three exceptions were due to scheduling conflicts. The full-day observations averaged about six hours in length.

It may be noted that there were some variations in the length of the observation periods. However, care was exercised to compensate for these exceptions by shortening or lengthening subsequent periods as needed to insure approximately equal total observation times for all subjects.

There were also some variations in the interval between observations. The interval between observations of the same subject averaged about two and one-half weeks.
The Observation Procedure

One of the first problems which needed to be faced was determining the role of the observer. The design of the study did not call for an experimental or test situation, nor did it call for active participation in the administrative situation by the observer. But the mere presence of an observer in a social situation could change that situation to a degree. The concern in this investigation was to keep the influence of the observer on the administrative situation at a minimum.

Consequently, the researcher engaged in what has been termed "quasi-participant" observation. No attempt was made by the observer to disguise himself in the sight of persons actively participating in, or affected by, the administrative situation. When the occasion demanded, the observer entered the conversation or action so as to avoid the awkwardness of complete non-participation. However, when it did occur, this participation was of a non-directive nature.

In most cases, after the orientation visit and after about an hour of the first half-day observation, the subjects seemed to act

14Goode and Hatt, op. cit., p. 123.
naturally and with little or no restraint. The superintendents who had been rated by the jury as most effective seemed to adjust to the situation much more rapidly than the members of the least effective group. One member of the most effective group was observed to make, to participants in the situation, occasional remarks which seemed to the observer to be intended for the observer's enlightenment and benefit. However, these comments were seen by the observer as a sincere attempt on the part of this superintendent to help the observer get the most out of the experience.

There were three subjects in the least effective group who, on occasion, appeared to the observer to be "trying" to show some administrative activity. This may have been caused by the subjects' lack of pressing activity or by their desire to demonstrate some behavior which they felt might be expected of them. Consequently, it appeared necessary to screen these behaviors carefully before admitting them to the data. In several cases data were excluded.

It may be of interest to note that the more intense the administrative activity became, or the more engrossed a subject became in a problem, the less evidence the subject gave of an awareness of the presence of an observer.

In general, the researcher would conclude that his presence in the administrative situation did not present a major inter-
ference in the normal activities of the subjects, and that the vast majority of the data can be considered as having been taken from a natural or normal situation.

In the observations, attention was focused on the behavior of the subjects. The researcher attempted to observe and record as much of the subjects' behavior as was possible. When the action became too rapid to record all behaviors, and some choice was necessary, those behaviors which past experience had shown to be least frequent were the ones recorded. Then, during the reconstructing of the observation as the data were being dictated for transcription, as many of the unrecorded behaviors were restored as could be recalled.

In order to see and hear all that took place, it was necessary for the observer to move about as the superintendent moved from one place to another. There were occasions when the observer did not actually accompany the subject, for example, from one office to an adjoining office, but moved only enough to keep the subject in either visual or auditory range. In a very few instances, good judgment seemed to indicate the necessity of permitting the subject to carry out an act unobserved. In most of these cases, the subject was willing to fill in the details of what took place.

Realizing that the superintendent's first obligation was to his
own people and that the presence of a stranger might prevent the superintendent from satisfactorily dealing with a delicate or critical situation, the researcher had volunteered previously to absent himself during such incidents. During the entire series of observations, this prerogative was used six times, five times by members of the most effective group and once by a member of the least effective group. In every case, the most effective men took time immediately following the incident to relate to the observer the details of the incident and what they had said. In the remaining case, no details were given, although the observer learned later the nature of the incident.

In addition to the behavior itself, attention was given to the cause and the result of the behavior when these could be observed or learned. This phase of the observation process gave rise to the majority of questions asked of the subject by the observer. Usually the initiating event or stimulus causing the behavior was much more easily observed or learned than the result of the behavior. As will be explained later in the section dealing with processing the data, these circumstances surrounding the action were distinguished from the action itself.

When all of the observations had been completed, letters of appreciation were sent to the superintendents and to the presidents
of their respective boards of education.\textsuperscript{15}

\textbf{Recording the Observations}

During the observations, notes were kept on 3\textsuperscript{1/2} x 5\textsuperscript{1/2} cards. It was found necessary to use abbreviations and symbols because of time limitations. Verb-object combinations were also employed to indicate an action. Frequently, a small space was left near a brief notation, so that, in a lull in activity, the observer could fill in a little more information dealing with the incident.

As soon as possible after the observation, usually the evening of the same day, these rough notes were used to reconstruct the observation period and to provide the information for the anecdotal record. This record was dictated and recorded electrically, and was later transcribed into typewritten copy. The observer then checked the typewritten copy against the original dictation by reading and listening simultaneously. In addition to checking for accuracy in the typewritten copy, this procedure permitted the adding of recalled facts, incidents, or circumstances for clarification purposes. It also provided an opportunity to clarify further certain criteria for admissible data.

\textsuperscript{15}See Appendix D for copies of these letters.
The record of observations, typed in duplicate, covered approximately 475 double-spaced pages. To prevent an irreparable loss, the original and the carbon copies were stored in different locations. The dictaphone belts containing the original dictation were stored apart from either typewritten copy.

In the recording of the observations, a conscious effort was made to prevent the observer's biases and the observer's reactions from entering the data. In some instances, reactions of the observer did appear, but these were set apart and differentiated from the behavior of the subject.

V. PROCESSING THE DATA

After the data had been recorded, they were re-examined and processed for analysis. This involved applying certain criteria to the data and placing the edited units of behavior on cards to facilitate analysis and tabulation.

Criteria Applied to the Data

The development of certain criteria for admissible data started before the observations began and continued through the editing of the data. As the study progressed, members of the research team discussed these criteria and applied them on a trial
basis. In order that there might be some degree of comparability in the concurrent studies, some general agreements were reached in regard to data which should be admitted to the analysis.

Administrative behavior. To be considered as administrative behavior, an act should be connected with the superintendent's professional duties or activity rather than with his personal life. If a behavior was a part of an interaction with other persons in the administrative situation, it was considered administrative behavior. A behavior which initiated further action, which influenced a course of action, or which kept action moving toward the achievement of some educational goal, was an administrative behavior.

The source of the data. To be admissible to the analysis, a behavior should have been: (1) seen or heard by the observer; (2) described or related to the observer or to someone else by the superintendent; (3) indicated or reported in printed or written materials; (4) reported by commercial communication media; (5) described or related by other persons directly associated with the superintendent; or (6) inferred by the observer on the basis of known facts or obvious circumstances.

The unit of behavior. One of the most difficult problems
faced in processing the data was that of breaking up the anecdotal records into units of behavior. If the unit is too small, there is a danger that the meaning, in terms of the categories, will be lost.

If the unit is too inclusive or broad, it may lack exclusiveness. The latter condition was pointed up not only during the editing and processing of the data, but also during the reliability checks performed by the other team members. Frequently, a statement or a behavioral act contains elements which might make possible classification in several categories. This condition obviously will affect the reliability of the categorization.

It becomes apparent that the selection of the size of a unit of behavior depends in part upon the category system itself. This is further emphasized by Bales in his definition of the unit to be scored:

The unit to be scored is the smallest discriminalbe segment of verbal or nonverbal behavior to which the observer, using the present set of categories after appropriate training, can assign a classification under conditions of continuous serial scoring.

In this study, an attempt was made to apply in a consistent

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manner the general definition of a unit of behavior as the largest segment of behavior which could be classified in a single category.

The Use of "Keysort" Cards

Following the editing of the data, which included breaking the behaviors into units and separating the behavior from the information concerning circumstances or conditions, the behaviors were recorded on "Keysort" cards. This procedure may be illustrated by showing a portion of the unedited anecdotal record and the way in which it appeared on the "Keysort" cards. The following was extracted from the anecdotal record:

While talking with Mr. G., who wanted to discuss student insurance in this school system, and after suggesting that Mr. G. talk with the assistant superintendent, S offered to get the assistant superintendent on the telephone right now. S rang the switchboard operator, but learned that the assistant superintendent was not in. S offered to have the assistant superintendent call Mr. G. S wrote Mr. G's name and phone number on a scratch pad.

This information appeared in the categorized data on four separate cards. Each card may contain two types of information: (1) the circumstance or setting of the behavior; and (2) the behavior to be categorized. The behavior to be categorized is contained in the

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18 See Appendix E for a sample of the "Keysort" card.

19 The symbol "S" was used to designate the superintendent.
indented portion of the subject matter.

Card 1:

While talking with Mr. G., who wanted to discuss student insurance in this school system, and after suggesting that Mr. G. talk with the assistant superintendent,

S offered to get the assistant superintendent on the telephone right now.

Card 2:

While talking with Mr. G., who wanted to discuss student insurance in this school system, and after suggesting that Mr. G. talk with the assistant superintendent,

S rang the switchboard operator,

but learned that the assistant superintendent was not in.

Card 3:

S rang the switchboard operator, but learned that the assistant superintendent was not in.

S offered to have the assistant superintendent call Mr. G.

Card 4:

S offered to have the assistant superintendent call Mr. G.

S wrote Mr. G's name and phone number on a scratch pad.

After the data had been transferred to the "Keysort" cards,
each card was numbered serially and was coded by marginal punching. The superintendent's code number and the number of the series in which the observation took place were first punched. Next, the cards selected as the random sample for the reliability checks were code punched. Later, and after the categorization had been completed, the category and subcategory numbers were punched. The random sample cards, however, were not punched for category until after the reliability checks had been completed.

VI. CATEGORIZING THE DATA

After all of the data from the anecdotal records had been transferred to the "Keysort" cards, after the cards had been numbered serially and all the data had been accounted for, and after the cards had been code punched for observation series and superintendent, it was possible to proceed with categorization without the danger of "losing" the cards.

The Development of Definitions

Because there had been no clear-cut or generally accepted definitions provided for the categories in the early pilot studies of the School-Community Development Study, the members of the research team developed word definitions for each category. The
basis for these definitions was found in the literature of the field, in the materials related to the pilot studies of the School-Community Development Study, and in dictionary references. These general definitions were applicable to all of the concurrent studies.

In order to define the categories in terms of behavior, a set of operational definitions was drafted for the level of administration being studied. In this study, these were statements of what a superintendent did as he performed an action in a particular category. As a result of further discussion and additional information obtained as the observations progressed, a set of tentative operational definitions was available for each category at the time the classification of behavioral acts began.

**Categorizing the Behaviors**

Approximately 25 per cent of the cards were placed in categories on the basis of the tentative behavioral definitions. Certain inadequacies in definition appeared during this operation. Consequently, the behavioral definitions were revised and made more adequate.

After this first revision, all of the cards were placed in categories on the basis of the revised definitions. This operation included reclassifying the cards used in the trial categorization.
It was also during these first two operations that some cards were dropped from the data because they did not meet the criteria for admissibility.

The behaviors in each of the critical areas were then placed in subcategories. During this process, the operational definitions took final form. The changes which appeared advisable consisted primarily of regrouping small subcategories of closely related behaviors. No major changes were made in the definitions.

Before tabulating the data, the cards which had been dropped were re-examined and several were restored to the data. Then the cards in each subcategory and in each category were counted and the frequencies recorded and checked.

The Reliability Check

After all of the behaviors had been categorized and tabulated, the cards coded for the random sample were removed from the data for a check on the reliability of the classification system and the work of the researcher. Before forwarding the sample to the checkers, the category and subcategory for each behavior were recorded by the researcher so that the sample could be properly coded when the cards were returned.

The random sample, numbering 417 cards and comprising
approximately 10 per cent of the total data, was selected on the basis of numbers obtained from a table of random numbers. The random sample, a set of instructions, a copy of the definitions presented in Chapter IV, and tabulation sheets were forwarded to each of the other members of the research team. The check, consisting of categorizing all behaviors in the random sample, was performed independently by these three men. When the tabulation sheets were returned, the results of the checks were recorded and analyzed.

Each checker was able to place each of the units of behavior in one of the ten categories, and each checker saw some behavior in each category. The instructions to the checkers suggested that a second-choice category be designated in cases where a distinction between categories was difficult to make.

Although it is not the preferred method for analyzing results of a reliability check on a category system, the percentages of item agreement with the researcher's (R's) categorization are shown for the purpose of comparison:

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21 See Appendix F, Exhibits 1 and 2, for a copy of the instructions to checkers and for a sample of the tabulation sheets.
| Checker A with R | 54.44 | 57.55 |
| Checker B with R | 61.87 | 64.75 |
| Checker C with R | 70.74 | 76.50 |
| Checker mean with R | 62.35 | 66.27 |

When the coefficient of reliability was determined by a method of approximation which makes this coefficient equal to the square root of the percentage of agreement, the coefficient of reliability based on the mean percentage of item agreement using first-choice category designations was found to be .79. Using both first- and second-choice category designations, the coefficient of reliability became .81.

Heyns and Zander point out that the investigator ought to be concerned with the reliability of the measure actually used in the analysis of data. In this case, the measure was the category system. They state that

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it is a matter of relative unimportance whether the observers agree with respect to the number of units of behavior assigned to a specific individual if the score with which the investigator is concerned is the number of units in each category made by the group as a whole.  

It is with this concept in mind that Tables III, IV, and V are presented.

While rank-order correlation is a rather rough measure of association, it does provide some indication of relationships. Here it is used to show a pattern of similarity of categorization of the random sample by the reliability checkers and the researcher.

Table III shows the frequencies and rank orders of categories as seen in the random sample by the reliability checkers and by the researcher. From this table, the correlation coefficients among the checkers and the researcher were computed. These coefficients are presented in Table IV. Using the "squared-\(r\)" method of averaging these coefficients, a correlation of .92 was obtained. The arithmetic mean of the coefficients also equalled .92. With nine degrees of freedom, this correlation is significant (\(p\) was less than .01), and it may be concluded that all the checkers were able to

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24Ibid.

25Allen L. Edwards, Statistical Methods for the Behavioral Sciences (New York: Rinehart & Company, Inc., 1954), pp. 401, and 513. When \(p\) is less than .01, there is less than one chance in 100 that the relationship is accidental or due to chance.
# TABLE III

FREQUENCIES OF BEHAVIORS (F) AND RANK ORDERS OF CATEGORIES (RO) SEEN IN THE RELIABILITY CHECK

<table>
<thead>
<tr>
<th>Category</th>
<th>Checker A</th>
<th>Checker B</th>
<th>Checker C</th>
<th>Mean of Checkers</th>
<th>Researcher-Writer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F  RO</td>
<td>F  RO</td>
<td>F  RO</td>
<td>F  RO</td>
<td>F  RO</td>
</tr>
<tr>
<td>Appraising effectiveness</td>
<td>89 3</td>
<td>66 4</td>
<td>65 3</td>
<td>73.33 3</td>
<td>50 4</td>
</tr>
<tr>
<td>Communicating</td>
<td>105 2</td>
<td>107 1</td>
<td>125 1</td>
<td>112.33 1</td>
<td>135 1</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>32 4</td>
<td>77 2</td>
<td>64 4</td>
<td>57.67 4</td>
<td>69 3</td>
</tr>
<tr>
<td>Determining roles</td>
<td>116 1</td>
<td>73 3</td>
<td>90 2</td>
<td>93.00 2</td>
<td>89 2</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>22 5</td>
<td>28 6</td>
<td>25 5</td>
<td>25.00 5</td>
<td>23 5</td>
</tr>
<tr>
<td>Involving people</td>
<td>8 8</td>
<td>16 7</td>
<td>9 8</td>
<td>11.00 8</td>
<td>16 6.5</td>
</tr>
<tr>
<td>Making policy</td>
<td>20 6</td>
<td>30 5</td>
<td>20 6</td>
<td>23.33 6</td>
<td>12 8</td>
</tr>
<tr>
<td>Setting goals</td>
<td>14 7</td>
<td>7 9</td>
<td>14 7</td>
<td>11.67 7</td>
<td>16 6.5</td>
</tr>
<tr>
<td>Using resources</td>
<td>6 9</td>
<td>9 8</td>
<td>1 10</td>
<td>5.33 9</td>
<td>6 9</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>5 10</td>
<td>4 10</td>
<td>4 9</td>
<td>4.33 10</td>
<td>1 10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>417</td>
<td>417</td>
<td>417</td>
<td>416.99</td>
<td>417</td>
</tr>
</tbody>
</table>
categorize the data in the random sample in such a way that the
category ranks of the checkers, both individually and by group, were
significantly related to the order established by the researcher.

Another test of the reliability of categorization was made by
applying the Chi-square test. The results of this test are shown
in Table V. As may be noted, the results in the cases of Checker A
and Checker B showed variations which were statistically sig-
nificant. The results in the cases of Checker C and the checker
mean showed no statistically significant differences from the cate-
gorization of the researcher.

The variation in the cases of Checker A and Checker B was
attributed to several factors. Bales has noted that the existence of
variation between observers is a practical reality. He found that
systematic training does reduce these variations. He also found
that "after a lapse of time, or at the time of a shift to a new
situation, retraining will most assuredly be necessary."26

Neither Checker A nor Checker B had worked intensively with
the categorization procedure during the preceding six months.
Further, there was no opportunity to engage in systematic training
of these checkers on the final set of definitions developed for this

26Bales, op. cit., p. 100.
### TABLE IV

**CORRELATION COEFFICIENTS* AMONG THE RELIABILITY CHECKERS AND THE RESEARCHER, BASED UPON RANK ORDER OF FREQUENCIES OF BEHAVIORS IN THE RANDOM SAMPLE**

<table>
<thead>
<tr>
<th></th>
<th>Checker A</th>
<th>Checker B</th>
<th>Checker C</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checker A</td>
<td>---</td>
<td>.89</td>
<td>.98</td>
<td>.94</td>
</tr>
<tr>
<td>Checker B</td>
<td>.89</td>
<td>---</td>
<td>.89</td>
<td>.88</td>
</tr>
<tr>
<td>Checker C</td>
<td>.98</td>
<td>.89</td>
<td>---</td>
<td>.94</td>
</tr>
<tr>
<td>Researcher</td>
<td>.94</td>
<td>.88</td>
<td>.94</td>
<td>---</td>
</tr>
</tbody>
</table>

* $r = 1 - \frac{6 \frac{3}{n^2}}{n(n - 1)}$, from Edwards, *Statistical Methods for the Behavioral Sciences*, op. cit., p. 195.
particular study. This set of definitions was considerably more
detailed than those used by Checkers A and B in their studies, and
consequently required more attention to detailed descriptions of
administrative behavior. As Bales has noted, this kind of formal
definition will help to solve classification dilemmas in marginal
cases, but it will not always solve the problem. 27 Specific training
in discrimination in these marginal cases, of which there may be
many in a multi-functional construct, seems not only desirable but
also necessary.

Another factor which may have contributed to the variation in
the cases of Checkers A and B, is the tendency of categorizers to
permit personal biases to enter into interpretations. Bales has
stressed the desirability of emphasizing that "the criterion for
correctness is an impersonal one, based upon some previously agreed-
upon written criterion." 28 It can not be stated with certainty that the
definitions in the category system were acceptable to Checkers A
and B.

A final factor which may explain some of the variation in the
case of Checker A may be found in a written comment appended to

27Ibid., p. 91.

28Ibid., p. 88.
### TABLE V

**CHI-SQUARE TEST* OF RELIABILITY OF CATEGORIZATION, BASED UPON FREQUENCIES OBSERVED IN THE RANDOM SAMPLE**

<table>
<thead>
<tr>
<th>Category</th>
<th>Checker A with R</th>
<th>Checker B with R</th>
<th>Checker C with R</th>
<th>Checker Mean with R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>10.94</td>
<td>2.20</td>
<td>1.96</td>
<td>4.44</td>
</tr>
<tr>
<td>Communicating</td>
<td>3.76</td>
<td>3.24</td>
<td>.38</td>
<td>2.06</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>13.56</td>
<td>.44</td>
<td>.18</td>
<td>1.02</td>
</tr>
<tr>
<td>Determining roles</td>
<td>3.56</td>
<td>1.58</td>
<td>.00</td>
<td>.08</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>.02</td>
<td>.50</td>
<td>.08</td>
<td>.08</td>
</tr>
<tr>
<td>Involving people</td>
<td>2.66</td>
<td>.00</td>
<td>1.96</td>
<td>.92</td>
</tr>
<tr>
<td>Making policy</td>
<td>2.00</td>
<td>7.72</td>
<td>2.00</td>
<td>3.70</td>
</tr>
<tr>
<td>Setting goals</td>
<td>.14</td>
<td>3.52</td>
<td>.14</td>
<td>.70</td>
</tr>
<tr>
<td>Using resources**</td>
<td>1.48</td>
<td>1.80</td>
<td>.34</td>
<td>.40</td>
</tr>
<tr>
<td>Working with leadership**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Chi square                    | 37.52            | 21.00            | 7.04             | 13.40               |

*Chi square = Σ \((f_o - f_e)^2 / f_e\), from Henry E. Garrett, *Statistics in Psychology and Education* (New York: Longmans, Green & Co., 1944), pp. 123 and 383. A contingency table was used in computation. With eight degrees of freedom, a Chi square of 15.507 would indicate a significant difference at the 5 per cent level.

**The categories of using resources and working with leadership were combined to provide a minimum cell frequency of 5.
the tabulation sheets of Checker A. There was evidence that some of the definitions in the category of co-ordinating functions were missed. Upon rechecking the tabulation sheets it was found that thirty-nine behaviors, defined on the second page of definitions of this category, were classified in a manner not agreeing with the classification of the researcher. Assuming that all these behaviors had been classified "correctly," the percentage of agreement between Checker A and the researcher on individual items in the random sample would have been about 10 per cent higher (63.79 per cent instead of 54.44 per cent).

In spite of the variation shown by the Chi-square test in the cases of Checkers A and B, there is evidence upon which to conclude that, with proper training and orientation, the category system can be used reliably. Checker C has demonstrated such use.

At the time Checker C performed the reliability check for the researcher, he was engaged in the analysis of the data of his own study. In addition, there had been opportunities to discuss certain definitions of the category system as applied to superintendents before the reliability check was made. And from conversation following the check, it was learned that Checker C made a conscious effort to find the "best" definition when a dilemma arose.

As evidence that the category system in its present form is
useful and can be applied with some degree of reliability, the follow­
ing facts are presented in summary: (1) the percentage of item
agreement with the researcher's classification was more than fifty
per cent in the cases of all of the checkers and in the checker mean,
providing a coefficient of reliability of approximately .79; (2) the
category rank-order correlation of the checkers' classifications
with each other's and with the researcher's was in no case less than
.88, with the average being .92, indicating a statistical probability
of less than .01; (3) the Chi-square test on the mean of the fre­
quencies in the checkers' classifications showed no statistically
significant differences from the classification of the researcher;
(4) Checker C was able to categorize the random sample in a manner
which showed no significant difference, either for the system or for
any single category, from that of the researcher; and (5) although
the Chi-square test in the cases of the classifications of Checker A
and Checker B showed significant variations with that of the re­
searcher, these significant variations of individual categories were
found in only one category for Checker B (making policy) and in two
categories for Checker A (appraising effectiveness, and co­
ordinating functions). These facts would seem to indicate that the
category system can be used to classify and describe adminis­
trative behavior with an acceptable degree of reliability.
VII. SUMMARY

In this chapter, the methodology and procedures of this study have been presented and discussed. An account of the development of the research plan has been given. The method used to select the superintendents involved in the research has been outlined. Attention has been directed to the observational procedures through which the data were obtained. And the methods used to process and categorize the data have been recorded. In Chapter IV, the nature of a category system will be discussed and the categories of behavior under investigation in this study will be defined.
CHAPTER IV

THE CATEGORIES OF BEHAVIOR

If human behavior is to be studied, if comparative analyses are to be made, if differences are to be observed, and if determining variables are to be identified, it seems desirable that there be a framework available within which behavior may be observed in terms of certain descriptive indices.

While human behavior and social interaction are exceedingly complex, there are certain uniformities and regular relationships which can be identified. A category system which provides a common frame of reference for observers in examining relationships and interactions not only makes it possible to put the data of the observation into manageable form but also increases the likelihood that the relevant or critical aspects of the total behavior will be seen and recorded with reliability. ¹

Before examining the category system used in the present study, it would seem appropriate to consider some of the charac-

teristics of a category system useful in the observation of human behavior, and some of the problems in the development and application of such a system.

I. THE NATURE OF A CATEGORY SYSTEM

A category may be defined as "a statement describing a given class of phenomena into which observed behavior may be coded; a category system consists of two or more categories." The nature of a category system will depend upon what the observer is examining and upon the theoretical framework within which the study is taking place. Consequently, there may be a wide variety of systems and each may serve its user well.

But along with the many differences in systems, there appear to be some common dimensions and formal properties present in all. Heyns and Lippitt have identified six of these properties.\(^2\)

\(^2\)Ibid., pp. 388-389.

The dimension of exhaustiveness. In an exhaustive category system, all of the behavior observed may be placed in one of the defined categories. Bales uses such a system in analyzing interaction process. He has intended the set of categories "to be completely inclusive in the sense that every act which can be observed can be classified in one positively defined category." 4

The dimension of inference. The amount of inference required of the observer or of the analyst varies among category systems. The theoretical framework within which the observer is operating has a direct bearing upon the inference level. In some systems, little or no inference is required; in others, a great deal is necessary. In case the investigator plans, in his analysis, to proceed from a low-inference category to a high-inference test of hypotheses, care must be taken to specify the kinds of behavior which make a high level of inference permissible.

The number of aspects of behavior under scrutiny. The category system should specify and include the processes upon which attention is to be focused. Here, again, the theoretical framework

and the hypotheses being tested are determining factors. Heyns and Zander have pointed out that the larger the number of dimensions attempted in a category system the less will be the agreement among observers and the less likely are the categories to be exclusive.  

Discreteness. Most category systems used in the study of human behavior are discrete, in that the categories do not possess quantifiable relationships to each other. To use the present study as an example, there is no arrangement or ordering of the category labels which will put them on a single continuum. In effect, when one does construct a system where there are quantifiable relationships between categories, the result is a scale.

The size of the unit. The size of the unit of behavior will vary in different systems. Depending upon the aspect of behavior being investigated, a unit may range from a single movement to an entire period of interaction. As has been pointed out earlier in this report, the size of the unit is not independent of the category system. For example, in the present study a unit was considered to be the largest segment of behavior which can be classified in a single category.

5Heyns and Zander, op. cit., pp. 391-392.

6Heyns and Lippitt, op. cit., pp. 374-375.
The range of applicability. The final dimension identified by Heyns and Lippitt concerns the variety of situations in which the system may be used. Some systems may be used in several kinds of situations; others are designed for a specific application and may not be appropriate to another situation. Bales designed his set of categories so that they could "be used to obtain a series of standard indices regarding the structure and dynamics of interaction in any small group" as he defined that kind of group. In the present concurrent studies, it was hypothesized that the category system was useful in looking at any level of administrative behavior.

In this connection, however, it should be pointed out that in these four studies the behavioral definitions were not necessarily identical. Descriptions of specific behaviors belonging to each category were in many cases different. This fact does not diminish the usefulness of the category system. In fact, such adaptation is defended by Heyns and Lippitt because it permits the gathering of commensurate data through different investigations. 7 Too frequently category systems are discarded for the wrong reason. The

7Ibid., p. 375.
system may not be inadequate; rather, the precise behaviors used to define the categories in a particular system may not be appropriate to another situation or analysis. One need not change the categories or the dimensions simply because he changes the behavioral referents.

II. THE PROBLEMS OF VALIDITY AND RELIABILITY

Two problems arise in connection with the development and use of an observational instrument. They concern validity and reliability.

Validity

The problem of validity of a set of categories involves two questions, depending upon the meaning of the term validity. In one sense, validity relates to determining whether the system measures what it claims to measure. In category systems where the definitions are generally accepted and require very little inference, where similarities are found in situations that are functionally related, face validity, or internal validity, is said to exist.8 Here

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the meanings of words must be clear and constant, and the limits of these meanings must be observed.

As the category system becomes more complex, as more inferences become involved in relation to the intent, motive, objective, or feeling of the person being observed, the problem of validity becomes more significant. If there were an outside, independent criterion of the same variable with which to compare observer scores, the problem might be solved. But such criteria are seldom available at present in the behavioral sciences.

Heyns and Lippitt have suggested another alternative which can partially alleviate the problem of determining validity in the absence of adequate external criteria. This method would involve establishing a well-formulated and documented theoretical position and determining how well the scores of the observation match the scores which the theory might expect. But here again, it is difficult to find adequate theory which can serve as a criterion for a particular instrument or system.

Under the second meaning of the term validity the problem relates to the ability of the category system to make predictions. More progress appears to have been made in this phase of the

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9Heyns and Lippitt, op. cit., p. 398.
problem of validity than in the one just discussed. There are many examples in which the measures of an instrument are correlated with some criterion. When the correlation is high, the instrument is considered to be valid in terms of the criterion to which it was related. Care must be exercised, however, that the things predicted are important. It has been shown that the highest reliability is found in comparatively unimportant matters and that, thus far, the highest predictive efficiency tends to be in matters of a high-inference level. 10

Reliability

Usually, reliability is thought of in terms of agreement between independent observers. However, the problem involves more than a comparison of scores. Peak suggests that

reliability be thought of as referring to the amount of stability which measures or observation reveal when repeated under conditions which ensure that only random variable errors affect this stability. 11

It would appear that there are at least two aspects of the problem. First, is the content of the category system of such a nature that it provides for stability in eliciting the same responses

10 Ibid.

11 Peak, op. cit., p. 295.
on different occasions? And second, can the variables in the observer and in the social situation be accounted for by applying certain recognized techniques of experimental control?

Experience has shown that the less inference required on the part of the observer, the higher the degree of agreement. It has also been pointed out that the most reliable category systems are those which are clearly defined and those in which specific cues are provided. Conversely, where units or categories are not clearly defined the reliability is likely to be low. ¹²

In attempting to sharpen categories, some limits must be observed as to the amount of the detail included. Unless these limits are imposed, one could engage in an additive process until the definitions consisted of the anecdotal record of the investigation. Under these circumstances, the category system would be useless from the standpoint of manageability.

In addition to the content or substantive characteristics of a category system, reliability is affected by the methodology involved. Here, the training, the perspective, the bias, the motivation, and the alertness of the observer play an important part. The mechanics of recording observations and the devices used will affect relia-

¹²Heyns and Lippitt, op. cit., p. 397.
bility. For example, it has been found that other things being equal, the more the observer is called upon to do, the lower will be the reliability.\(^{13}\)

Peak has summarized the problem of reliability thus:

To say that a measure is reliable means simply that the important determinants of the measured event—the instigating stimuli, the variables in the reacting individual, observational techniques, and procedures for handling the observations and reducing them to the final result—are all sufficiently under control for us to be able to reproduce results within stated limits.\(^{14}\)

Perhaps one of the most severe tests to which the reliability of a category system may be put is its ability to be communicated to other researchers. This does not mean that simplicity is the determinant of reliability. Rather, the requirement is one of absence of ambiguousness.

Generally speaking, this requirement is seldom met completely in category systems used to study human behavior and social interaction. The very nature and complexity of behavior, and of the constantly changing situation in which it occurs makes the formulation of absolute rules impossible.

\(^{13}\)Ibid.

\(^{14}\)Peak, loc. cit.
III. THE DEFINITIONS OF THE CATEGORIES

The behavioral data gathered in the present study were categorized according to the definitions which follow. These definitions were also used by the other members of the research team as they provided a reliability check upon the categorization done by this researcher.

Although discussion of the fact is not appropriate at this point, it should be noted that definitions are provided for a new category, one which was not identified at the beginning of the study. Since this category was used in classifying data, it seems appropriate to include the definitions as a part of the system. A further discussion of the development of this category, "Fostering human relations," is presented in Chapter V as one of the findings of the investigation.

The categories of behavior are:

1. Appraising effectiveness
2. Communicating
3. Co-ordinating administrative functions and structure
4. Determining roles
5. Fostering human relations

\[15\] The new category added during the study.
6. Involving people

7. Making and maintaining policy

8. Setting goals

9. Using the educational resources of the community

10. Working with community leadership to promote educational improvement

**Definition of Category 1: Appraising effectiveness**

Appraising effectiveness is evaluating or analyzing the worth or status of an educational activity in terms of its effects or its relationship to its objectives; it is assaying the effectiveness of persons in the roles which they are performing or are expected to perform; it is verifying the continuing existence of property or arrangements.

A school superintendent is appraising effectiveness when he:

1. Recognizes, or points out:

   a. Criteria upon which a judgment or choice should be based.
   
   b. A deficiency in criteria upon which judgment has been, or is to be, based.
   
   c. That a condition or act does, or does not, meet a criterion.

2. Formulates judgments, or makes judgmental statements or observations, concerning the worth, status, or importance of:

   a. Some aspect of the school program.
   
   b. A person, or the performance of roles, including his own.
c. A condition.

3. Seeks the judgment or opinion of others concerning the worth, status, or importance of:
   a. Some aspect of the school program.
   b. A person, or the performance of roles, including his own.
   c. A condition.

4. Recognizes, or points out:
   a. Satisfactory or unsatisfactory performance or condition.
   b. Superior or sub-standard performance or condition.
   c. Success or failure.
   d. A mistake or error.

5. Expresses, or indicates a like or a dislike for a procedure, an action, or a condition; points out:
   a. Its practicability or its impracticability.
   b. Its effectiveness or its ineffectiveness.
   c. The solution made possible in a problem situation.
   d. The difficulties encountered.

6. Expresses, or indicates, satisfaction or dissatisfaction with:
   a. Some aspect of the school program.
   b. A person, or the performance of roles, including his own.
   c. A condition.

7. Indicates the desirability or undesirability, or the importance or necessity of:
   a. Some aspect of the school program.
   b. An action.
   c. A condition.

8. Makes a judgmental statement indicating the appropriateness of something in satisfying a need or want.
9. Analyzes, diagnoses, or "sizes up a situation"; points out factors or conditions which have made, or would make, certain acts or arrangements:
   a. Desirable or undesirable.
   b. Practical or impractical.
   c. Effective or ineffective.
   d. Possible, difficult, or impossible.

10. Anticipates, or notes, desirable or undesirable conditions which might follow an action.

11. Makes comparisons; expresses preference.

12. Makes a judgmental statement, or expresses doubt, concerning an idea or proposal presented by someone else.

13. Looks for, recognizes, or notes change in the form of growth or regression; or seeks, notes, or examines reasons for such change occurring in:

   a. Some aspect of the school program.
   b. The development of personnel.
   c. Conditions.

14. Engages in testing procedures, computes or analyzes test data.

15. Makes judgmental statements concerning such things as publications, text books and teaching materials and how they are used, equipment and supplies, administrative procedures, and prices; notes how an action or decision saved money.

16. Makes inspections of, or checks on:

   a. The progress or status of work being done.
   b. The performance of roles. (This differs from the supervision of instruction as referred to in determining roles.)
   c. The school plant, facilities, and equipment. (This includes taking inventories.)
d. The general functioning of the school program or some aspect of it.

Examples of behavior categorized as **appraising effectiveness** include the following:

After having computed the class average for one class, S looked at the spelling results of a second grade room. The results showed approximately a fourth grade achievement on the test as against a 2.8 grade norm.

S said, "By golly, she's teachin' 'em to spell!"

* * * * *

Upon entering the lobby of the new senior high school, S looked at a stainless steel cover on a large pillar in the lobby.

S indicated his dissatisfaction with the workmanship in installing this steel finish, when he said: "We'll not accept that."

(The steel covering had been welded around the post, and the seams had been ground off. However, there were noticeable irregularities at the seams. In O's opinion, the job was very poorly done).

* * * * *

In discussing the legislation involving the schools and the mental health association, with Mr. W. of the association,

S said he was disappointed in Mr. R., a state legislator, and his lack of leadership in recent years.

S indicated that he felt that a cause of this lack of leadership may have been in part due to "some bad personal habits."

* * * * *
In discussing the problem of student drivers at the high school, S said that now-a-days parents have no control over their children, in spite of the fact, that they, the parents, expect the school to control the children.

* * * * *

Definition of Category 2: Communicating

Communicating is the deliberate interchanging or transferring of thoughts, opinions, or information concerning the educational program, through speech, writing, or signals. This concept includes behavior connected with the mechanical aspects of communication as well as the function itself.

A school superintendent is communicating when he:

1. Provides, gives, or shares information by:

   a. Saying, or pointing out, something; telling someone something; talking, or discussing, with a person or persons.
   b. Drafting, preparing, dictating, writing, publishing, making available, issuing, or sending bulletins, announcements, circulars, brochures, handbooks, reports, questionnaires, recommendation forms, memoranda, letters, messages, or charts as sources of information. (This does not include dictating or preparing an agenda or a calendar as referred to in co-ordinating.)
   c. Answering questions or requests for information; explaining.
   d. Forwarding, relaying, routing, or channeling communication, information, or written materials which he has received or which pass through his office.
e. Verbally summarizing, repeating, or reviewing.

2. Seeks, obtains, or receives information by:
   a. Asking a question or seeking information from someone.
   b. Receiving, looking at, examining, reading, studying, or using written or printed materials, records, lists, reports, publications, applications, credentials, questionnaires, mail, telegrams, notes, memoranda, programs, schedules, films, charts, drawings, or objects as sources of information.
   c. Interviewing or questioning applicants for positions.
   d. Listening to other persons.
   e. Looking for a misplaced item.

3. Retains information for future use by:
   a. Making or jotting down notes or reminders to himself.
   b. Preparing or keeping records, summaries, minutes, charts, maps, or lists.
   c. Keeping or using a file, bulletin board, notebook, folder. (This does not include keeping or using a calendar as referred to in co-ordinating.)

4. Verifies information by seeking authenticity, checking on dispatching and reception of communication, editing, or signing, or initialing communications.

5. Making or receiving telephone calls.

6. Summoning a secretary verbally or by signal.

Communicating may be illustrated in terms of administrative behavior by the following units:

In discussing the acoustical treatment desired in certain buildings,

S asked the salesman the cost per square foot.

***
S wrote a short note to a staff member and forwarded it with a pamphlet that had come in the morning mail.

***

S looked up a phone number and made a call. He asked for Mr. H.

***

When the high school principal asked about salaries and the notification of teachers concerning salaries for next year,

S said that notification would be given in the May meeting of the board of education.

***

**Definition of Category 3:** Co-ordinating administrative functions and structure

Co-ordinating administrative functions and structure is combining in harmonious action or relationship persons, activities, and materials in order that the instructional program may operate at a maximum level of efficiency. It includes the performance of administrative functions on the part of the administrator and others. It seems operative at several levels, from almost automatic facilitation to the abstraction of co-ordinating the entire educational program.

A school superintendent is co-ordinating administrative functions and structure when he:

1. Settles competitive demands:
a. For time, by:

1). Suggesting a time for appointments, meetings, or activities; rejecting a suggested time.
2). Approving a time for, making, or keeping appointments; scheduling meetings or activities.
3). Arranging for the presence of persons at appointed times and places; checking to see that they will be there.
4). Keeping, using, or referring to a calendar or date book.
5). Noting, or avoiding, conflicts in schedules.
6). Providing time for others, or taking time for himself, to do something.
7). Limiting time, adjourning meetings, or adjusting his work or activity to the time available.
8). Preparing, working on, or dictating items for an agenda or program.

b. For financial resources, by:

1). Computing financial resources, requirements, or costs.
2). Preparing, or using, a budget; making recommendations for salaries or expenditures.
3). Obtaining, managing, providing, or allocating funds.
4). Deciding on, approving, or securing approval for, expenditures.
5). Making recommendations on acceptance or rejection of contracts.

c. For space and facilities, by:

1). Drawing up plans, designs, or specifications, or recommending features, for the physical plant.
2). Proposing, recommending, or taking action on remodeling or changing the physical plant.
3). Computing or working on enrollments, class size, and space requirements.

d. For equipment and materials, by:
1). Working on, estimating, or deciding on materials needed; examining or checking orders or requisitions.

2). Requisitioning, ordering, purchasing, securing, allocating, or delivering supplies, equipment, or materials.

3). Working on, making recommendations for, or deciding on, textbook selection.

4). Arranging for the repair of equipment or books.

e. For personnel, by:

1). Working on, computing, deciding on, personnel requirements, number to be hired, allocation and placement. (This does not include the hiring or assigning of individuals as referred to in determining roles.)

2). Computing attendance and absence.

f. Upon program or organization, by:

1). Proposing, or taking action resulting in, a change of program or organization.

2. Plans, or intends, or "is going":

a. To attend a meeting, to hold a conference, to keep an appointment, to be out of town, to go someplace, or to return.

b. To present a problem for consideration, or to discuss a problem.

c. To present a report to the board of education or to teachers.

d. To make a change involving:

1). Personnel, by hiring, assigning, or retiring persons, by setting up work schedules, etc. (This differs from hiring and assigning persons as referred to in determining roles, in that the action has not yet been taken on the plan.)

2). Buildings or plant, by remodeling, expanding, adding to, or disposing of buildings or site.
3. Program, by introducing new areas of work, adding or expanding a testing program, etc.

4. Equipment or materials, by providing, buying, or allocating additional equipment or materials.

5. Finances, by asking for or presenting a bond issue or a levy, allocating funds, setting salaries, etc.

e. To do something in the near future, such as write, discuss, work, publish, have someone do something, work out a plan, etc. (The planned behavior may be in any of the ten main categories, except where it can be more specifically identified above.)

3. Plans activities or events for himself or others.

4. Points out, or identifies, what needs to be done or what ought to be done to achieve more satisfactory conditions relating to the physical plant, program, etc.

5. Discusses, or examines, possible or alternate solutions to such problems as space, enrollment, attendance areas, renovation, teacher assignment, or retirement; suggests ways of using or arranging buildings or equipment.

6. Waits to take, or defers, action until necessary preceding action has been completed or until conditions are appropriate.

7. Approves a specific plan of action proposed by someone. (This approval is more than a judgmental statement as referred to in appraising; it usually involves authorization.)

8. Carries through, supports, reinforces, or blocks administrative action begun by someone else or by himself.

9. Leaves his desk or office, moves from one place to another, goes someplace, goes out of town, in order to do something. (The subsequent behavior, where the activity is known, probably can be placed in one of the ten main categories; but in this item, the movement is the focus of attention.)

10. Brings or invites people into his office or into a room or building.
11. Picks up something, lays down something, moves something, takes something someplace, gets or brings something, discards or throws something away. (Here, the moving, arranging, or placing of some object or item is the focus of attention.)

12. Arranges the physical setting necessary to the operation.

These are behaviors associated with co-ordinating administrative functions and structure:

After some further conversation,

S and the chairman agreed to get together this afternoon at 4:00 p.m.

* * * * *

S said that

he had ordered three new plastic maps yesterday.

* * * * *

S told O that

he (S) had recommended to the board a $200 raise in base salary for all teachers.

The board adopted this recommendation for base raise.

* * * * *

S indicated to O that he had hired fifteen more teachers for this year than the new foundation program would provide for. Furthermore,

he plans to hire seven more new teachers for next year to meet the demands of increased enrollment.

* * * * *
Definition of Category 4: Determining roles

Determining roles is deciding, designating, assigning, describing, resolving, modifying, or controlling the relationships which persons have to tasks or jobs.

A school superintendent is determining roles when he:

1. Seeks or secures suitable persons to fill roles or positions. The behavior may be observed when he:
   a. Looks for, or engages in the process of securing or hiring, personnel.
   b. Considers, suggests, or recommends the employment, transfer, or dismissal of persons; identifies persons suitable, or unsuitable, for roles or positions.
   c. Selects or hires persons for positions; assigns persons to positions; transfers persons out of positions.

2. Defines, explains, or interprets a person's role to him. This includes giving instructions, advice, and orders. The behavior may be observed when the superintendent:
   a. Asks or tells a secretary to do something.
   b. Describes or outlines what a secretary does, or should do, as a regular part of her duties.
   c. Suggests to, or tells, someone (except a secretary) what they should do or should not do; suggests to, or tells, someone what to do, or to do a specific thing.
   d. Trains a person to fill a role or position.
   e. States or outlines what he wants or expects school personnel to do, or not to do, as members of the school-community.

3. Explains or interprets a person's role, including his own, to another person. This includes describing his own role by generalizing on what he does. (The superintendent says what he does; the observer does not necessarily see the behavior at the time it is described or identified.)
4. Seeks to clarify roles, including his own.

5. Suggests to, outlines to, or tells others what to do as an extension or modification of their roles. This includes giving permission to someone to do something suggested by that person as an extension or modification of his role. It may also include suggesting retirement, taking a leave, considering a transfer, attending professional meetings, etc.

6. Observes or supervises another person's performance of his role or his behavior. This includes providing help, through suggestions or otherwise, to staff members as they go about their work. (It is more than watching or inspecting.)

7. Controls the behavior of others through compliments, expressions of approval, warnings, manipulating pressure, threats, admonitions, manhandling, or other disciplinary action. It includes making corrections of behavior.

8. Behaves or acts in his role as he sees or understands the role of a superintendent; does things he thinks a superintendent should do; does things which he thinks are required of the job.

9. Assigns himself a role or offers to do something; volunteers or agrees to do a job or to take responsibility; accepts a role assigned to him; refuses or declines a job or task; acts in response to specific roles assigned to him or which he was invited to take. (The latter roles are frequently outside the school or its immediate program.)

10. Behaves or acts in an effort to secure a better conception of, and improvement in, his own personal-professional role, by attending and participating in professional meetings, conferences, conventions, workshops, and in-service training programs.

11. Performs duties for which others in the school system have been employed or are available, such as typing, substituting for a teacher, repairing equipment, performing janitorial tasks, etc.
The following behaviors were classified as determining roles:

In discussing the proposed building program, the two visitors said they felt that the board has been afraid to ask for what they need. They indicated this had been the case in the past. They don't want it to happen again.

S explained to the two visitors the board's legal status. S indicated that: While "I am in the middle, I still am in the driver's seat."

***

While talking with an elementary school principal, S suggested the possibility that one of the members of the board of education might not run again this fall. S suggested a possible candidate.

S said that he (S) could not talk with this person directly.

***

Soon after S returned to his office following the meeting with the parents,

S told his secretary she could go home now.

***

In discussing some personnel problems, S stated that:

He reassigned a teacher to a different school in an effort to make her more satisfied with her work.

***

Definition of Category 5: Fostering human relations

Fostering human relations is creating or maintaining conditions
characterized by friendliness, warmth, mutual trust, and respect for
the personal integrity, dignity, and worth of individuals, as a setting
for the interpersonal relationships of persons engaged in, or related
to, the educational enterprise.

A school superintendent is fostering human relations when he:

1. Identifies, explains, or helps to provide solutions for,
or forestalls, problems of interpersonal relations. This
behavior may be observed when he:

   a. Arbitrates disputes.
   b. Removes undue strains or tensions.
   c. Suppresses or eliminates feuds, cliques, or scape-
goating.
   d. Suppresses or stops unfounded rumors, gossip, etc.
   e. Makes practical suggestions in cases of difficulty,
      thereby getting persons to seek his help.
   f. Provides satisfactions for persons.

2. Gives recognition or credit to persons, in their presence or
directed to them, for the way in which they are performing,
or have performed, their roles. This behavior may be
observed when he:

   a. Compliments or congratulates a person, or passes on a
      compliment to a person; gives verbal rewards.
   b. Voluntarily grants recognition to persons in the school-
      community, by displaying or calling attention to their
      hobbies or work, issuing certificates or awards, etc.

3. Behaves in a supportive fashion toward other persons by:

   a. Encouraging, giving assurance, sympathizing, and
      permitting "griping." (This differs from behavior
      intended to control role.)
   b. Displaying faith in the ability of a person.
   c. Giving leeway to a person--permitting the exercise of
      judgment--in how the person does his job.
4. Arranges the setting, facilities, and working conditions to provide physical and mental comfort and ease. He may do this by:

a. Facilitating interpersonal and group identification and awareness through furniture arrangement, room comfort, etc., in order to create a setting conducive to the exchange of thought.
b. Adjusting loads to fit personal strengths, providing requested leaves of absence, working to provide adequate retirement pensions, etc.
c. Providing for a "break" or a short period of relaxation.

5. Observes the common social amenities by greeting, welcoming, expressing thanks and appreciation, offering best wishes, begging pardon, expressing regrets, and apologizing.

6. Extends personal or institutional hospitality beyond the common social amenities.

7. Engages in personal (as against professional) conversation with persons in the school-community by chatting, joking, teasing, or kidding.

8. Talks about, or visits about, mutual acquaintances; reminisces; talks about the health or well-being of a person's relatives or friends or of the person himself.

9. Recognizes the individuality and dignity of persons by:

a. Calling them by first name in informal or intimate conversation; making certain that he remembers names; making certain that he uses the correct name and title, if any.
b. Seeing people in private; discussing matters in confidence; respecting the confidence of persons.
c. Attempting to avoid offending, disappointing, or embarrassing persons.
d. Preventing unnecessary interruptions in conversation, or courteously delaying such interruptions.
e. Attending events or activities which involve significance or pride for the person.
To illustrate behaviorally the content of the category fostering human relations, these acts may be cited:

The call was from the tennis coach at the high school. The coach had entered his team in district or state competition recently.

S said, "You made a very presentable showing."

* * * * *

Upon arriving in an elementary school building,

S stopped by the cafeteria, stepped inside the kitchen in order to say "hello" to the cooks.

* * * * *

S stated that just before the board meeting,

he reviews these names (kept in a folder) so that he will be able to call persons by their proper names should they attend the board meeting and take some part in it.

* * * * *

Before going into his inner office, after he had arrived back at the building following a conference with the architect,

S chatted with his secretary about the "nice party and good food" which they had enjoyed at the recent Teachers' Association dinner.

* * * * *

Definition of Category 6: Involving people

Involving people is causing, seeking, or inviting those persons
in the school-community who have a potential for strengthening the educational program, to participate in, or become associated with, the school and community affairs. The concept of involvement denotes participation rather than just interest on the part of individuals who are the objects of this kind of behavior.

A school superintendent is involving people when he:

1. Invites, encourages, or secures school personnel or community members to participate in making suggestions, plans, and decisions, and in evaluating the school program; confers deliberately with persons on school matters for the purpose of securing participation, obtaining commitments, and sharing responsibility; attempts to "tie them in."

2. Forms or fosters organizations or committees whose task is to deliberate and advise on problems faced by the school. (Here, the superintendent is acting more independently than when he works with community leadership.)

3. Meets with, works with, consults with, or asks the board of education, school personnel, or persons outside the school for help in solving specific problems, for advice on action to be taken, for criticism of a proposed plan of action, or to get decisions in problem situations; asks for and receives recommendations; uses the advice or help obtained.

4. Meets with, or speaks before, various community groups, such as the P.T.A., in support of the school or in connection with the school-community relationship; participates in panel or discussion groups in the community; attends meetings or luncheons of various community groups; seeks membership in, or is a member of, community organizations.
5. Promotes or develops an idea which will get parents and community members into the schools or to attend school activities; encourages and invites school personnel and community members to participate in school-sponsored activities.

6. Collaborates with community leaders and agencies in using group participation in jointly sponsored school-community activities. (This differs from initiating the structure which usually takes place at the leadership or status level.)

7. Solicits or secures support, financial or moral, for the school from groups of people. (Here, the focus is upon the number of people rather than upon the status, as is the case in working with community leadership.)

8. Makes school facilities available to community groups; encourages the use of facilities; spends time showing people through the school.

9. Seeks or engages community members to participate by performing unskilled or unpaid tasks in the school enterprise, such as serving as clinic aides, chaperones, and room mothers.

10. Recruits persons for, or encourages individuals to enter, the teaching profession. (This differs from hiring persons who are presently in the profession.)

These behaviors were categorized under involving people:

After having discussed the entertainment proposal with the parents' group for about twenty or twenty-five minutes,

S said that he ought to get the high school principal to come into this meeting to hear the proposal. He went after him so that he (P) would be "in on it."

* * * * *

In preparing for resubmitting the bond issue this coming May:
S asked the community councils (mothers of school children) to make plans for the building program, to set down what they thought was necessary in the way of school buildings and facilities.

* * * * *

S told O that

he (S) had spent an hour and a half this morning talking with members of the ministerial association.

S said that there had been some question raised as to the extent of extra-curricular activities and "over-participation" by the students in such activities.

* * * * *

According to the annual report,

S meets with his administrative council twice each month.

* * * * *

**Definition of Category 7: Making and maintaining policy**

Making and maintaining policy is the setting forth of principles or the establishment of a course of action or procedures to provide guidance to members of the school organization, or other persons who enter into a participatory relationship with the school, for their behavior in subsequent situations. Policies may be applicable to the use and disposition of school properties and materials as well.

This concept embraces supporting, and abiding by, policies
emanating from higher echelons of authority. It includes enforcing, or modifying, existing policies at the administrator's own level. It includes explaining and interpreting existing policies to people when their intentions or behavior challenge these policies or point up a need for new ones.

A school superintendent is making and maintaining policy when he:

1. Cites, explains, or interprets to school personnel or community members:
   a. Existing policies.
   b. Principles which are to guide the actions of himself, school personnel, or community members in participatory relationships with the school.

2. Agrees, or disagrees, with the interpretation of policy by someone else; questions the advisability of an action which seems to him to violate existing policy.

3. Calls attention to, announces, or seeks adherence to:
   a. An accepted principle or basis for action in a problem situation; explains action taken on the basis of a principle.
   b. An acceptable method of operation.

4. Specifies, cites, calls attention to, or describes:
   a. Conditions to be met if a desired action is to be taken, or is to result.
   b. Conditions or requirements under which action is, can be, or must be taken.
   c. What he does, can, cannot, or must do, if his action is to be in accord with acceptable procedure.
   d. What others can, cannot, or must do, if their action is to be in accord with acceptable procedure.
e. Action or proposed action which is, or would be, in conflict with the accepted way of doing things.

5. Makes recommendations:
   a. Specifying a way of doing things, or prescribing a definite course or method to be followed, under a given set of circumstances.
   b. To a policy-making group or body, which will alter or modify existing methods of operation; proposes or works toward changes in rules, regulations, or operational procedures.

6. Expresses a preference between two policies or principles of operating; cites group consensus on a principle of action, as a decision or action is being sought.

7. Enforces, emphasizes, or acts in accordance with existing modes of operation and policy, especially in problem situations.

8. Decides on, or takes, action, such action being in accord with a principle previously accepted as a guide in a similar set of circumstances; explains reasons for adopting or following a prescribed course of action; cites, affirms, or follows policies, procedures, and instructions from the board of education and the state department of education.

9. Agrees, or refuses, to cooperate with policies proposed or established by others and which affect the school program; seeks reasons for proposed changes.

10. Sets or establishes precedent by his behavior, or by default, in a unique or first-occurring situation; deviates from established policies or procedures because of compelling circumstances; makes decisions in crisis or emergency situations which involve a challenge to existing policies.

11. Sets, or reminds personnel of, deadlines in recurring or routine situations, such as in making periodic reports. (This differs from setting deadlines as a function of setting goals; the distinction is based upon the recurring or routine nature of the activity.)
Examples of behavior interpreted as making and maintaining policy are:

While talking with the teaching candidate about her certification, and about hiring the candidate,

S explained how temporary certificates are issued and the conditions under which the temporarily certificated teacher can be hired.

***

In discussing one of the problems of placing slow-learning students with regular class groups,

S told the director that within limits, a general policy must be established and must prevail, if the teachers are to understand and be satisfied with the guidance director's placement of children in classes.

***

In examining a note from a teacher concerning expenses to a professional meeting, S told his secretary to notify the teacher that board policy prevents payment of a teacher's way to clinics and so forth. "First, we don't have the money, and second, it's against policy."

***

In discussing with the 9th graders their subject selections for next year,

S warned boys interested in football that they must pass three subjects if they wish to play football.

***
Definition of Category 8: Setting goals

Setting goals is fixing, formulating, or helping to formulate objectives, aims, purposes, or points toward which effort or movement can be directed.

A school superintendent is setting goals when he:

1. Sets forth statements of the desired end-products of the school's operation; outlines purposes of an activity; approves goals suggested by others; eliminates conflicts in goals; or modifies or extends existing goal statements.

2. Identifies or describes:
   a. Things which he wants to do, is trying to do, hopes or had hoped to do, or would like to do which involve or affect other persons, such as talk with, dictate to, locate, see, etc.
   b. Things which he wants, or wants to do, hopes to do, wants to have done, or says ought to be done, regarding buildings, equipment, materials, conditions, and finance.
   c. Things which he wants others to do.
   d. Relationships, organization, arrangements, or role performance which he wants or is seeking.
   e. Things he tries to do as a means of achieving a stated objective.

3. Identifies or describes:
   a. Things which he does not want to do--things which conflict with his goals or objectives.
   b. Things which he does not want others to do--things which conflict with his goals or objectives.
   c. Conditions which he does not want to exist--conditions which conflict with his goals or objectives.

4. Describes or sets up standards to be sought and achieved, such as quality of performance, pupil-teacher ratio, etc.
5. Identifies or describes desired changes in behavior toward which effort can be directed, such as more parental participation in school affairs, better understanding of school problems, and improved teaching.

6. Expresses a need for, indicates an interest in, or hopes for some future action on, certain legislation, or action on the part of the board of education, the city, the state, or the federal government; points out conditions which he wants to prevail; or cites the amount of money he would like to obtain to do something in buildings or program, or as a maximum or a minimum budget.

7. Sets deadlines by which time a specified state of progress or accomplishment in a non-routine situation is to be achieved.

8. Indicates professional status to which he aspires or to which he aspires for his associates, such as membership in organizations, election to office, certification, and acquiring degrees.

The category **setting goals** included the following illustrative behaviors:

In discussing the work of consultants,

S said that he has been trying to get the music supervisor to be a consultant rather than a teacher who visits the room 15 minutes each week.

* * * * *

S dictated a note to Mr. D., in charge of personnel, concerning teachers having only temporary certificates.

S said he wants to get things "in line" before the teachers leave for the summer vacation.

* * * * *
S told the high school principal that

he wants to get the kindergarten back into the
school system.

From previous discussion, O learned that the kindergarten was
not entirely free. Parents are required to pay $1.00 per week
tuition for their children to attend kindergarten.

** ** ** **

S stated that he wants to give the slow learner a
chance to learn to read. Then they won't be
slow learners.

** ** ** **

Definition of Category 9: Using the educational resources of the
community

Using the educational resources of the community is utilizing
persons, organizations, groups, facilities, objects, materials, or
wealth in the school-community having an educational potential so as
to provide more effective learning experiences for children. The
concept includes strengthening both the instructional and service
programs through utilizing resources. Persons within the school
organization used in a capacity other than their official assignment
are considered resources.

The concept also includes the "larger community" rather than
the geographical boundaries of the school district. Resources from
state and nation may enter the school program.
A school superintendent is using the educational resources of the community when he:

1. Lists or recommends resources such as persons, agencies, facilities, books, and materials to school personnel for their use.

2. Reads or uses professional books, sample textbooks, magazines, special reports from outside the school, educational publications, and catalogs that can be helpful in strengthening any aspect of the school program.

3. Makes available or distributes professional books, sample textbooks, magazines, special reports from outside the school, educational publications, and catalogs that can be helpful in strengthening any aspect of the school program.

4. Calls, contacts, consults with, or obtains the help or services of, government agencies, university bureaus or offices, university personnel, or consultants, in connection with problem situations or in the achievement of educational goals; provides resource people to help the board of education.

5. Goes, sends, or takes someone to see an activity, a physical plant, or an operation with the purpose of obtaining usable ideas for his own situation; seeks or uses ideas or suggestions from skilled or professional workers in the community. (In the latter instance, it is necessary to distinguish between persons selected upon the basis of skill and those selected upon the basis of prestige.)

6. Provides, hires, or uses special professional skills not available within the school, as needed, such as medical, dental, psychiatric, legal, educational, or architectural specialists. (Here, it is necessary to note the distinction between selecting persons on the basis of their knowledge and skill, and on the basis of their power and prestige, the latter belonging more properly in the category of working with community leadership.)
7. Invites speakers to appear before groups connected with the school.

8. Arranges for the support of a learning experience for children by groups having a special interest in the subject area of that learning experience. An example would be securing help from an automobile club or automobile dealers in establishing or continuing a program in driver education.

Examples of behavior classified as using the educational resources of the community would include these:

While discussing some of the unsatisfactory conditions in planning of some remodeling and in a new building recently constructed,

S said he had gone to KSU to get consultants to make recommendations to remedy a lighting situation in the high school music department.

*** ***

S talked about specifications which S had gotten for a renovation or maintenance job.

S said some of his ideas were obtained from Duffey.

*** ***

In describing the planning for the new high school, S stated that:

He asked the architects to go to the Ohio State University campus to inspect the new Ohio Union to get some up-to-date ideas for the new building in this city.

*** ***

S told O about the services of an outstanding lady doctor
which had been obtained by the schools

and which he is continuing to use

for the purpose of locating sight deficiencies. S pointed out that this person had given much of her time, free of charge, as a part of the regular health program in this school system.

** **

Definition of Category 10: **Working with community leadership to promote educational improvement**

**Working with community leadership to promote educational improvement** (formerly Using Power and Influence) is identifying and utilizing for educational ends any source of power, influence, status, prestige, authority, and control present in the community.

A school superintendent is **working with community leadership to promote educational improvement** when he:

1. Identifies, or seeks to identify, existing power groups and persons; selects leaders or important people who are to be involved.

2. Exerts leadership in, or gives support to, the formation of a new power structure.

3. Seeks support, financial or moral, or endorsement from community leaders, civic groups, organizations, industrialists, business men, or professional people for specific school purposes, or for his or the board's plan of action or proposals; asks lay leaders to help the school attain goals. (The recognition and use of status persons or leaders distinguishes this item from one in involving people or in using resources.)
4. Talks with, or works with, city or state officials on matters of school-community interest; contacts, or takes steps to contact, leaders at the state or national level to secure their participation in, or endorsement of, school-community projects or activities.

5. Works with people to secure contact with legislators on matters of school legislation; contacts legislators and other local, state, or national officials on matters of school legislation.

6. Seeks and considers advice or opinions from influential persons in the community; takes steps to get community leaders together to discuss school-community plans and objectives; secures and uses prestige persons and community leaders as members of advisory groups or councils dealing with school-community affairs.

7. Suggests projects to, or secures aid from, leadership persons outside the school wishing to aid the schools.

8. Attends meetings or dinners sponsored by prestige organizations.

The following behaviors illustrate the category working with community leadership to promote educational improvement:

S asked O if O thought the new foundation program would pass.

S said he had talked to Senator M several times about the legislation.

* * * * *

S introduced O to the city editor of the newspaper, the public relations representative of the B-L-H Company, the chairman of the Civic Improvement Committee, a representative of the Chamber of Commerce, a representative of the Better Business Bureau, and one or two other persons,

whom S had called to a conference to plan the dedication
of the new high school.

S told O that

he had talked with the mayor about re-routing trucks away from this elementary school building and from the high school building.

S said, however, that nothing had been done so far. However, he did indicate that some plans were being considered for building a by-pass for trucks outside the city.

In involving people of the community in school affairs, S indicated that:

He helped to select the important people to be involved in the community celebration.

IV. SUMMARY

This chapter has presented some of the concepts derived from the literature and from experiences in this study, which have been embodied in the development of the category system. Needless to say, this development did not take place as a distinct chronological step at a single stage of the investigation; it was a continuous process from the time the study started with only the category labels through much of the processing of the data recorded as a result of the field observations.
The chapter has also presented the definitions of the nine original categories and of the one new category added as a result of the study, as well as anecdotal illustrations of each of these categories. The usefulness of this particular category system may be judged in part by the content of the remainder of this report and in part by a further application of the system by other researchers.
CHAPTER V

FINDINGS PERTAINING TO THE CATEGORY SYSTEM

The data of this study were analyzed from two somewhat different points of view: (1) by using the category system, composed of ten critical areas of administrative behavior, as the frame of reference; and (2) by examining the data in terms of the subcategories in each critical area. Chapter V presents the findings from the first point of view. Chapter VI contains the analysis from the second point of view.

In this chapter, the findings are those pertaining to the category system as a whole. The adequacy of the original nine critical areas and the dimensions and properties of the revised system, containing ten critical areas, are discussed. Characteristics of the frequency distribution of the behaviors are presented. And evidence of the ability of the category system to detect significant differences between the behaviors of the two groups of superintendents is offered. These differences were identified by the application of certain statistical tests to the frequencies of behavior observed in the critical areas.

Since the present study was undertaken as a descriptive re-
search, care must be exercised in the manner in which inferences are made from the statistical treatments. In problems where conditions of simplicity and precision prevail, the analysis of data is usually provided for by the statement of the hypothesis and by the experimental design.¹ Statistical tools which are able to discriminate sharply or to detect small variances may be useful in such cases. But as the hypotheses become more complex, as they contain less specificity, the analysis of the data becomes more difficult.

The present study is one of four undertaken for the purpose of refining certain concepts of administrative behavior. As was fully anticipated, this refinement has not been completed through the efforts of this research. Consequently, the analysis can not be expected to yield many answers within the scientific meaning of the term "probability." Rather, it is intended to provide some answers which appear to be plausible or reasonable, and which may provide guidelines for still further investigation.

Three factors may give rise to the question of the ability of the data in this study to undergo the rigors of statistical treatment. First, although the sample was composed of 8 per cent of the

superintendents in Ohio who might have been studied, it was, from the standpoint of the number of subjects involved, a small sample. Second, there was a great deal of subjective judgment involved in assigning behavioral units to categories, even though a rather elaborate set of definitions was established. And third, the manner in which the individual superintendents were assigned to the two groups being compared, was subjective in nature.

These three factors, however, do not in themselves make the data insusceptible to analysis; nor do they make valueless the findings which are presented.

In fact, three related and counteracting factors may be cited to support the adequacy of the data. First, for the purposes of the first hypothesis, the sample included 4,190 units of behavior, a number which certainly must be considered as an adequate sample. Furthermore, these 4,190 units of behavior constituted the data analyzed in connection with the second hypothesis. Second, although the judgments involved in assigning behavioral units to categories were subjective, they were protected by the judgments of other persons. The reliability check confirmed this protection. And third, although the assignment of the superintendents to two groups was subjective, this assignment was involved only in the second hypothesis. It will also be noted that the judgments of the jurors and
of the selection committee (composed of the other members of the research team) were likewise protected judgments. And for what weight it may carry, it may be added that, as a result of the observations of the superintendents and the analysis of their behavior, the value judgments of the researcher would confirm the ratings assigned by the jurors to nine of the ten superintendents. The researcher is of the opinion that one of the men described as least effective was underrated and might have been placed more properly in the next higher quarter.

I. FINDINGS PERTINENT TO THE FIRST HYPOTHESIS

It was hypothesized that

the administrative behavior of city school superintendents can be described and categorized within the framework of the nine critical areas of administrative behavior identified in the early exploratory field observations of the School-Community Development Study.

Essentially, the test of this hypothesis consisted of: (1) observing ten city school superintendents as they performed their administrative duties in their respective administrative situations; (2) recording the behaviors observed; and (3) attempting to place each unit of behavior in one of the nine categories.

During the early stages of the observations it became apparent that the first hypothesis could not be sustained without
revision. This revision consisted of adding one new category, fostering human relations.

The Need for a New Category

The need for an additional category of behavior was soon recognized by all of the members of the research team. Its addition to the category system was first reported by Hess. Both Clark and Rosenberger found it necessary to add the category in the treatment of their data.

Administrative behavior, as observed, seemed to be composed in part of occasional acts which had a common element running through them. This element was related to the creating and maintaining of an atmosphere of friendliness, warmth, and pleasantness in interpersonal relationships. It also involved respect for the dignity and worth of persons with whom the superintendent worked. It was the


\footnote{Dean O. Clark, "Critical Areas in the Administrative Behavior of High School Principals" (unpublished Ph.D. dissertation, The Ohio State University, 1956), p. 80.}

\footnote{David S. Rosenberger, "Critical Areas of Administrative Behavior of Local School Executives in Ohio" (unpublished Ph.D. dissertation, The Ohio State University, 1956).}
kind of act which served as a lubricant in the process of social interaction. It seemed to make the superintendent more acceptable as a leader and co-worker.

The most frequent behaviors of this kind were engaging in personal, as against professional, conversation with persons in the school-community. Chatting informally and joking were typical behaviors. With an almost equivalent frequency, superintendents observed the common social amenities, such as greeting, expressing thanks and appreciation, expressing regrets, and apologizing. A third component of the category consisted of giving recognition or credit to persons for the way in which they were doing their work. Typically, this involved complimenting or congratulating a co-worker.

This kind of behavior is somewhat similar to the dimension discussed by Halpin under the label of "Consideration." It may be found running through the writings of other persons studying leadership and administration. Several illustrations have already been presented in Chapter II.

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5Andrew W. Halpin, The Leadership Behavior of School Superintendents, School-Community Development Study Monograph, No. 4, CPEA Series (Columbus, Ohio: University Press, The Ohio State University, 1956).
The Dimensions and Properties of the Category System

In Chapter IV, the nature of a category system was discussed. It was suggested that six dimensions or properties should be included in such a system. Certain statements can now be made concerning the manner in which the category system under investigation measured up to these properties.

The dimension of exhaustiveness. The present category system appeared to meet the requirement of exhaustiveness. Table VI indicates that the 4,190 administrative behaviors admitted to the data were classified in one of the ten categories. The table will also indicate that each category contained some behaviors.

The dimension of inference. On the basis of the difficulty experienced in classifying some of the behaviors, it is concluded that the amount of inference which the system required of the observer or analyst was rather high. Were the intent of the superintendent always known to the observer, classification probably would have been simplified. That this requirement has not been fully met may also be seen from the lack of unanimity between the observer-analyst and the reliability checkers. Not actually having observed the behavior as it occurred in its setting, the checker had less basis
### TABLE VI

**FREQUENCY DISTRIBUTION, AMONG THE TEN CRITICAL AREAS, OF BEHAVIORS OBSERVED IN THE SAMPLE OF SUPERINTENDENTS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Rank</th>
<th>Per Cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicating</td>
<td>1453</td>
<td>1</td>
<td>34.68</td>
</tr>
<tr>
<td>Determining roles</td>
<td>957</td>
<td>2</td>
<td>22.84</td>
</tr>
<tr>
<td>Co-ordinating administrative functions and structure</td>
<td>643</td>
<td>3</td>
<td>15.35</td>
</tr>
<tr>
<td>Appraising effectiveness</td>
<td>527</td>
<td>4</td>
<td>12.58</td>
</tr>
<tr>
<td>Fostering human relations*</td>
<td>153</td>
<td>5</td>
<td>3.65</td>
</tr>
<tr>
<td>Involving people</td>
<td>133</td>
<td>6</td>
<td>3.17</td>
</tr>
<tr>
<td>Setting goals</td>
<td>126</td>
<td>7</td>
<td>3.01</td>
</tr>
<tr>
<td>Making and maintaining policy</td>
<td>113</td>
<td>8</td>
<td>2.70</td>
</tr>
<tr>
<td>Using the educational resources of the community</td>
<td>60</td>
<td>9</td>
<td>1.43</td>
</tr>
<tr>
<td>Working with community leadership to promote educational improvement</td>
<td>25</td>
<td>10</td>
<td>0.60</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4190</strong></td>
<td></td>
<td><strong>100.01</strong></td>
</tr>
</tbody>
</table>

*The new category added during the study.*
for inference than the observer, and consequently may not have seen the behavior in the same light as the observer.

The number of aspects of behavior under scrutiny. The present category system did specify and include the processes upon which attention was being focused. In its present state, it did not appear to be unwieldy because of a large number of categories. However, the problem of exclusiveness of categories is still present in that it is possible to classify some behaviors in more than one category.

Discreteness. The property of discreteness characterized the category system, since the category labels could not be placed on a single continuum. One category could not be said to have less of a specified property than any category above it. The categories of involving people and working with community leadership seemed to have some common elements, but the distance between the categories and the breadth of the categories were not specified.

Co-ordinateness of the categories. Although it was not included in the category dimensions originally being examined, the property or characteristic of co-ordinateness merits brief mention. The use of the category system in analyzing the behavioral data of
this study resulted in a tentative conclusion that the categories in the system were not co-ordinate—they did not appear to be of the same order.

The fact that the categories were not mutually exclusive gave rise to the conjecture that they also were not of the same order. It appeared possible, for example, to subsume a number of subcategories in a critical area not only under the label of that critical area, but also under another critical area. The category itself at times appeared to be a part of a broader critical area. This condition was evident particularly in the case of the critical area of co-ordinating administrative functions and structure. For example, co-ordinating, as defined, might include some aspects of the category of determining roles or of the category of using educational resources.

Another characteristic noted in connection with the order of the categories was the directness with which the behavior in the category could be related to the achievement of an educational goal. Some categories appeared to involve administrative processes or activities which, if continued or completed, resulted directly in advancement or change of position or direction toward the objective. Other categories seemed to involve behavior or action which served primarily to energize these goal-related processes and activities. When performed alone, this behavior in the latter
categories would not, in itself, result in a change of status or condition relative to the achievement of the major objective. Rather, it seemed to facilitate action in the goal-related categories; it seemed to act as a catalyst; it made possible effective subsequent action by the superintendent.

This difference in the order of the components of the category system may be illustrated in terms of four categories. Involving people and making and maintaining policy appeared to be concerned with structuring for the achievement of some objective. Communicating and fostering human relations seemed to cut across those two categories for the purpose of energizing the action of others. Communicating appeared to be involved in all interaction processes; it was essential to those processes. Fostering human relations also had a bearing upon the interaction processes, since this kind of behavior evoked action on the part of others above and beyond that resulting from order or command on the part of the superintendent. It appeared to create a willingness on the part of others to act voluntarily and in the absence of specific orders, in the direction of the objective being pursued by the superintendent. It appeared to serve as a lubricant in the interaction process.

Similar examples of the lack of co-ordinateness of the category system could be found in relation to certain other critical areas.
The illustrations presented, however, will serve to demonstrate the
difference in the order of the categories.

The size of the unit. A property or dimension which continues
to present some difficulty concerns the size of the unit of behavior.
While a unit was considered to be the largest segment of behavior
which could be classified in a single category, subjective judgments
as to what can be classified in a single category vary not only among
different analysts but with the same analyst under different con­
ditions. Here, again, the inference level seemed to become a
factor.

The problem of unit size and weight becomes acute at the time
quantifiable relationships are being sought. The data could show,
for example, many behaviors by a superintendent during a five-
minute period when he was dealing with many different minor affairs;
but during the same five-minute period, another superintendent
might be concentrating on a single critical aspect of administration
in which there was no observable change in the nature or category
of behavior and for which one unit of behavior was assigned.

Until size and weight of the behavioral unit can be more ade­
quately specified, the analyst will continue to face problems in
quantitative analysis of the behavior of superintendents.
Characteristics of the Frequency Distribution

A number of characteristics seemed to apply to the frequency distribution of the data. These characteristics involve range of frequency and consistency of proportion and rank order.

Range of frequency. From Table VII it may be seen that, with one exception, every superintendent exhibited some behavior in every category. One superintendent, S-6, was not observed working with community leadership.

The frequencies of the category totals were found to range from a high of 1,453 in communicating, to a low of twenty-five in working with community leadership. These extremes represent a ratio of 58.12 : 1.00. At first glance it might appear that the low-frequency categories were relatively unimportant. This can not be assumed to be true. The category system in its present form does not discriminate between the relative weights or values of the units of behavior, either within a single category or among categories. Consequently, one unit of infrequent behavior might have more effect in achieving an objective than a hundred frequently observed behaviors. But in the data, they appeared in a ratio of 1 : 1. In fact, some evidence is presented in Chapter VI which seems to indicate that some of the distinction between the most effective and the least
### TABLE VII

**THE FREQUENCY DISTRIBUTION, AMONG THE TEN CRITICAL AREAS, OF THE BEHAVIORS OF EACH OF THE SELECTED SUPERINTENDENTS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Superintendents</th>
<th>Total</th>
<th>Group Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
</tr>
<tr>
<td>Appraising effectiveness</td>
<td>71</td>
<td>71</td>
<td>61</td>
</tr>
<tr>
<td>Communicating</td>
<td>183</td>
<td>130</td>
<td>164</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>85</td>
<td>62</td>
<td>74</td>
</tr>
<tr>
<td>Determining roles</td>
<td>215</td>
<td>102</td>
<td>75</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>31</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Involving people</td>
<td>27</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Making policy</td>
<td>14</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Setting goals</td>
<td>11</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Using resources</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>647</td>
<td>421</td>
<td>423</td>
</tr>
</tbody>
</table>
effective superintendents was to be found in the areas of infrequent behavior.

The frequencies of total units of behavior of the ten superintendents were found to range from a high of 647 to a low of 298, or in a ratio of $2.17 : 1.00$. In view of certain other factors, some significance will be attached to this finding later in this chapter.

In addition to a comparison of frequency scores, another method may be used. The frequencies of behaviors of the superintendents in the ten categories may be converted to standard or $z$-scores. Such conversion renders the frequency scores more comparable since those scores are transmuted into equivalent sigma-values where the mean is 0.00 and one sigma equals 1.00. It should be noted, however, that although the conversion to standard scores tends to weight the raw frequency scores, it does not weight the items upon which the raw frequency scores were based originally. Table VIII presents the standard scores for each superintendent in each category of behavior.

**Consistency.** A certain pattern in the consistency of the frequencies of behaviors of individual superintendents in the various

---

<table>
<thead>
<tr>
<th>Category</th>
<th>S-1</th>
<th>S-2</th>
<th>S-3</th>
<th>S-4</th>
<th>S-5</th>
<th>S-6</th>
<th>S-7</th>
<th>S-8</th>
<th>S-9</th>
<th>S-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>1.46</td>
<td>1.46</td>
<td>.66</td>
<td>.98</td>
<td>-.62</td>
<td>-1.42</td>
<td>-1.02</td>
<td>-.38</td>
<td>-.38</td>
<td>-.78</td>
</tr>
<tr>
<td>Communicating</td>
<td>1.27</td>
<td>-.52</td>
<td>.63</td>
<td>1.68</td>
<td>.36</td>
<td>.19</td>
<td>-1.80</td>
<td>-1.06</td>
<td>-.14</td>
<td>-.62</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>2.08</td>
<td>-.23</td>
<td>.97</td>
<td>-.03</td>
<td>.17</td>
<td>-1.64</td>
<td>-1.13</td>
<td>-.73</td>
<td>.27</td>
<td>.27</td>
</tr>
<tr>
<td>Determining roles</td>
<td>2.67</td>
<td>.14</td>
<td>-.46</td>
<td>.72</td>
<td>-.64</td>
<td>-.42</td>
<td>-.44</td>
<td>-1.11</td>
<td>-.15</td>
<td>-.31</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>.69</td>
<td>1.05</td>
<td>-.57</td>
<td>1.59</td>
<td>-.79</td>
<td>-.46</td>
<td>-.25</td>
<td>-1.33</td>
<td>-.68</td>
<td>-.25</td>
</tr>
<tr>
<td>Involving people</td>
<td>1.62</td>
<td>-.74</td>
<td>-.98</td>
<td>.91</td>
<td>.08</td>
<td>-.98</td>
<td>1.38</td>
<td>-1.45</td>
<td>.20</td>
<td>-.04</td>
</tr>
<tr>
<td>Making policy</td>
<td>.42</td>
<td>-.67</td>
<td>-.52</td>
<td>1.51</td>
<td>-.52</td>
<td>-.67</td>
<td>1.98</td>
<td>-.83</td>
<td>1.14</td>
<td>.42</td>
</tr>
<tr>
<td>Setting goals</td>
<td>-.29</td>
<td>.25</td>
<td>1.51</td>
<td>.07</td>
<td>-1.01</td>
<td>-1.90</td>
<td>.97</td>
<td>.07</td>
<td>1.15</td>
<td>-.83</td>
</tr>
<tr>
<td>Using resources</td>
<td>-.77</td>
<td>-1.53</td>
<td>-.77</td>
<td>.77</td>
<td>-.38</td>
<td>-1.15</td>
<td>1.53</td>
<td>.77</td>
<td>1.15</td>
<td>.38</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>1.30</td>
<td>-.56</td>
<td>-.56</td>
<td>.19</td>
<td>-.56</td>
<td>-.93</td>
<td>2.41</td>
<td>-.19</td>
<td>-.56</td>
<td>-.56</td>
</tr>
<tr>
<td>Total</td>
<td>11.45</td>
<td>-1.35</td>
<td>-.09</td>
<td>8.39</td>
<td>-3.91</td>
<td>-9.38</td>
<td>3.63</td>
<td>-6.24</td>
<td>-.28</td>
<td>-2.32</td>
</tr>
</tbody>
</table>
categories may be seen by an inspection of the rank order of those frequencies. This comparison is provided in Table IX. The difference between the extremes of frequency ranks of the superintendents was only 1.0 in the categories of appraising effectiveness, communicating, and working with community leadership. In the case of co-ordinating administrative functions and structure the difference was 2.0. In determining roles and fostering human relations, the extremes in frequency ranks differed by 3.0. A difference of 4.0 was found in the categories of making and maintaining policy, setting goals, and using educational resources of the community. A rank difference of 5.0 was found in only one category, involving people.

The same pattern may be observed in the percentages of behaviors, by categories, of the ten superintendents. These percentages are given in Table X.

An inspection of Table XI, derived from Table X, will reveal that the ratio of differences between the percentage extremes above and below the total category percentage, to the total category percentage itself were smallest in the five categories containing the highest frequencies, and largest in the five categories containing the lowest frequencies.

Further evidence of the general pattern of consistency of frequency of behavior within the category system may be seen in the
<table>
<thead>
<tr>
<th>Category</th>
<th>S-1</th>
<th>S-2</th>
<th>S-3</th>
<th>S-4</th>
<th>S-5</th>
<th>S-6</th>
<th>S-7</th>
<th>S-8</th>
<th>S-9</th>
<th>S-10</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Communicating</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Determining roles</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>6.5</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>7.5</td>
<td>6.5</td>
<td>5</td>
</tr>
<tr>
<td>Involving people</td>
<td>6</td>
<td>7.5</td>
<td>8</td>
<td>6.5</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>10</td>
<td>6</td>
<td>6.5</td>
<td>6</td>
</tr>
<tr>
<td>Making policy</td>
<td>7</td>
<td>7.5</td>
<td>7</td>
<td>6.5</td>
<td>6.5</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Setting goals</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Using resources</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>6</td>
<td>7.5</td>
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<td>9</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
average of the intercorrelation coefficients. These coefficients were obtained by applying the formula for rank correlation coefficient to the differences in frequencies between each of the superintendents in each of the categories of behavior.  

Before these findings are presented, it would seem advisable to cite two limitations inherent in the process of averaging correlation coefficients, in order that these limitations may be taken into consideration in the interpretation of the results.

Although it is common practice to average correlation coefficients, Garrett questions such procedure unless certain precautions are taken. He points out that r's do not vary along a linear scale, so that an increase in correlation from .40 to .50 does not indicate the same increase in degree of relationship as an increase in correlation from .80 to .90. Because of this fact, a correlation of .99 differs from a correlation of .95 by as much as a correlation of .71 differs from a correlation of .01. Further, when plus and minus r's are involved, they tend to cancel out each other when averaged, so that two measures of relationship, such as .60 and

---


<table>
<thead>
<tr>
<th>Category</th>
<th>S-1</th>
<th>S-2</th>
<th>S-3</th>
<th>S-4</th>
<th>S-5</th>
<th>S-6</th>
<th>S-7</th>
<th>S-8</th>
<th>S-9</th>
<th>S-10</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicating</td>
<td>28.28</td>
<td>30.88</td>
<td>38.77</td>
<td>35.58</td>
<td>41.38</td>
<td>44.54</td>
<td>25.56</td>
<td>38.26</td>
<td>35.07</td>
<td>33.87</td>
<td>34.68</td>
</tr>
<tr>
<td>Determining roles</td>
<td>33.23</td>
<td>24.23</td>
<td>17.73</td>
<td>23.36</td>
<td>17.77</td>
<td>22.71</td>
<td>21.11</td>
<td>15.44</td>
<td>22.14</td>
<td>21.87</td>
<td>22.84</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>4.79</td>
<td>5.94</td>
<td>2.36</td>
<td>5.47</td>
<td>2.12</td>
<td>3.24</td>
<td>3.61</td>
<td>1.01</td>
<td>2.24</td>
<td>3.47</td>
<td>3.65</td>
</tr>
<tr>
<td>Involving people</td>
<td>4.17</td>
<td>1.66</td>
<td>1.18</td>
<td>3.83</td>
<td>3.71</td>
<td>1.47</td>
<td>6.94</td>
<td>0.34</td>
<td>3.73</td>
<td>3.47</td>
<td>3.17</td>
</tr>
<tr>
<td>Making policy</td>
<td>2.16</td>
<td>1.66</td>
<td>1.89</td>
<td>3.83</td>
<td>2.12</td>
<td>2.06</td>
<td>6.67</td>
<td>2.01</td>
<td>1.00</td>
<td>3.73</td>
<td>2.70</td>
</tr>
<tr>
<td>Setting goals</td>
<td>1.70</td>
<td>3.33</td>
<td>4.96</td>
<td>2.37</td>
<td>1.86</td>
<td>0.59</td>
<td>5.00</td>
<td>4.36</td>
<td>4.73</td>
<td>2.13</td>
<td>3.01</td>
</tr>
<tr>
<td>Using resources</td>
<td>0.62</td>
<td>0.48</td>
<td>0.95</td>
<td>1.46</td>
<td>1.33</td>
<td>0.88</td>
<td>2.78</td>
<td>2.68</td>
<td>2.24</td>
<td>1.87</td>
<td>1.43</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>0.93</td>
<td>0.24</td>
<td>0.24</td>
<td>0.55</td>
<td>0.27</td>
<td>0.00</td>
<td>2.50</td>
<td>0.67</td>
<td>0.25</td>
<td>0.27</td>
<td>0.60</td>
</tr>
<tr>
<td>Total</td>
<td>99.99</td>
<td>100.01</td>
<td>99.99</td>
<td>99.99</td>
<td>100.01</td>
<td>99.97</td>
<td>100.00</td>
<td>100.01</td>
<td>100.01</td>
<td>100.02</td>
<td>100.01</td>
</tr>
</tbody>
</table>
### TABLE XI

RATIO OF DIFFERENCES BETWEEN PERCENTAGE EXTREMES IN EACH CRITICAL AREA AND THE CATEGORY PERCENTAGES

<table>
<thead>
<tr>
<th>Category</th>
<th>Category Percentage</th>
<th>Difference between Upper and Lower Percentage Extremes</th>
<th>Ratio of Difference to Category Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>12.58</td>
<td>6.54</td>
<td>.52 : 1.00</td>
</tr>
<tr>
<td>Communicating</td>
<td>34.68</td>
<td>18.98</td>
<td>.55 : 1.00</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>15.35</td>
<td>7.45</td>
<td>.49 : 1.00</td>
</tr>
<tr>
<td>Determining roles</td>
<td>22.84</td>
<td>17.79</td>
<td>.78 : 1.00</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>3.65</td>
<td>4.93</td>
<td>1.35 : 1.00</td>
</tr>
<tr>
<td>Involving people</td>
<td>3.17</td>
<td>6.60</td>
<td>2.08 : 1.00</td>
</tr>
<tr>
<td>Making policy</td>
<td>2.70</td>
<td>5.67</td>
<td>2.10 : 1.00</td>
</tr>
<tr>
<td>Setting goals</td>
<td>3.01</td>
<td>4.41</td>
<td>1.47 : 1.00</td>
</tr>
<tr>
<td>Using resources</td>
<td>1.43</td>
<td>2.30</td>
<td>1.61 : 1.00</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>0.60</td>
<td>2.50</td>
<td>4.17 : 1.00</td>
</tr>
</tbody>
</table>
-.60, combine to indicate no relationship at all. But Garrett does suggest that the method of averaging coefficients may be acceptable for most purposes when the r's do not differ widely and when they do not differ in sign.

An inspection of Table XII will indicate that no coefficient was below .62, only two were below .71, and seven were below .80. There were no negative coefficients. Consequently, the method of averaging would appear to be acceptable in this case, particularly if Garrett's "squared-r" method is used.9

Correlation coefficients were determined on two different sets of figures. Table XII presents coefficients based on rank order of frequency of behavior by the ten superintendents in each category of the system. The average of these coefficients, determined by the "squared-r" method, was .88. It is interesting to note that the arithmetic mean of these coefficients was also .88, although the latter figure was fractionally lower (.004) than the first before rounding off.

Table XIII gives the correlation coefficients based upon standard or z-scores of each superintendent in each category. The average of the correlation coefficients by the "squared-r" method

---

9 Ibid., p. 284.
TABLE XII

CORRELATION COEFFICIENTS* AMONG THE TEN SUPERINTENDENTS, BASED UPON RANK ORDER OF FREQUENCY OF BEHAVIOR, IN EACH CRITICAL AREA

<table>
<thead>
<tr>
<th>Superintendent</th>
<th>S-1</th>
<th>S-2</th>
<th>S-3</th>
<th>S-4</th>
<th>S-5</th>
<th>S-6</th>
<th>S-7</th>
<th>S-8</th>
<th>S-9</th>
<th>S-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1</td>
<td>---</td>
<td>.92</td>
<td>.89</td>
<td>.96</td>
<td>.95</td>
<td>.94</td>
<td>.90</td>
<td>.62</td>
<td>.83</td>
<td>.94</td>
</tr>
<tr>
<td>S-2</td>
<td>.92</td>
<td>---</td>
<td>.97</td>
<td>.96</td>
<td>.91</td>
<td>.91</td>
<td>.88</td>
<td>.79</td>
<td>.90</td>
<td>.91</td>
</tr>
<tr>
<td>S-3</td>
<td>.89</td>
<td>.97</td>
<td>---</td>
<td>.91</td>
<td>.89</td>
<td>.88</td>
<td>.89</td>
<td>.85</td>
<td>.92</td>
<td>.91</td>
</tr>
<tr>
<td>S-4</td>
<td>.96</td>
<td>.96</td>
<td>.91</td>
<td>---</td>
<td>.96</td>
<td>.97</td>
<td>.91</td>
<td>.71</td>
<td>.84</td>
<td>.96</td>
</tr>
<tr>
<td>S-5</td>
<td>.95</td>
<td>.91</td>
<td>.89</td>
<td>.96</td>
<td>---</td>
<td>.95</td>
<td>.98</td>
<td>.68</td>
<td>.88</td>
<td>.97</td>
</tr>
<tr>
<td>S-6</td>
<td>.94</td>
<td>.91</td>
<td>.88</td>
<td>.97</td>
<td>.95</td>
<td>---</td>
<td>.89</td>
<td>.72</td>
<td>.80</td>
<td>.97</td>
</tr>
<tr>
<td>S-7</td>
<td>.90</td>
<td>.88</td>
<td>.89</td>
<td>.91</td>
<td>.98</td>
<td>.89</td>
<td>---</td>
<td>.72</td>
<td>.90</td>
<td>.96</td>
</tr>
<tr>
<td>S-8</td>
<td>.62</td>
<td>.79</td>
<td>.85</td>
<td>.71</td>
<td>.68</td>
<td>.72</td>
<td>.72</td>
<td>---</td>
<td>.82</td>
<td>.74</td>
</tr>
<tr>
<td>S-9</td>
<td>.83</td>
<td>.90</td>
<td>.92</td>
<td>.84</td>
<td>.88</td>
<td>.80</td>
<td>.90</td>
<td>.82</td>
<td>---</td>
<td>.83</td>
</tr>
<tr>
<td>S-10</td>
<td>.94</td>
<td>.91</td>
<td>.91</td>
<td>.96</td>
<td>.97</td>
<td>.97</td>
<td>.96</td>
<td>.74</td>
<td>.83</td>
<td>---</td>
</tr>
</tbody>
</table>

* $r = 1 - \frac{6 \sum D^2}{n(n^2 - 1)}$, from Edwards, op. cit., p. 195.
was .87. The arithmetic mean was also .87, although the two figures differed by about .004 before rounding off.

These averages appeared to be high enough and closely enough related to conclude that there was some evidence of consistency in the frequency of behavior of the ten superintendents when examined through this category system.

At this point it should be stated that, although a high degree of correlation of frequency of behavior seemed to be present within the entire category system, there were certain distinctions at certain points in the system which could be detected by using more discriminating statistical tools. In fact, certain high and low points which were leveled off by averaging, did exist and did have a bearing upon the second hypothesis. These differences are pointed out later in this chapter.

II. FINDINGS PERTINENT TO THE SECOND HYPOTHESIS

The second hypothesis of the study was that

the administrative behavior of school superintendents judged to be more effective educational leaders varies quantitatively and qualitatively within the critical areas from that of school superintendents judged to be less effective educational leaders.

To test this hypothesis, it was necessary to determine whether differences in behavior between the two groups of superintendents
TABLE XIII

CORRELATION COEFFICIENTS* AMONG THE TEN SUPERINTENDENTS, BASED UPON THEIR STANDARD SCORES, IN EACH CRITICAL AREA

<table>
<thead>
<tr>
<th>Superintendent</th>
<th>S-1</th>
<th>S-2</th>
<th>S-3</th>
<th>S-4</th>
<th>S-5</th>
<th>S-6</th>
<th>S-7</th>
<th>S-8</th>
<th>S-9</th>
<th>S-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1</td>
<td>---</td>
<td>.84</td>
<td>.81</td>
<td>.91</td>
<td>.80</td>
<td>.68</td>
<td>.70</td>
<td>.66</td>
<td>.78</td>
<td>.80</td>
</tr>
<tr>
<td>S-2</td>
<td>.84</td>
<td>---</td>
<td>.95</td>
<td>.88</td>
<td>.92</td>
<td>.89</td>
<td>.75</td>
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<td>.92</td>
</tr>
<tr>
<td>S-3</td>
<td>.81</td>
<td>.95</td>
<td>---</td>
<td>.87</td>
<td>.94</td>
<td>.86</td>
<td>.76</td>
<td>.92</td>
<td>.95</td>
<td>.92</td>
</tr>
<tr>
<td>S-4</td>
<td>.91</td>
<td>.88</td>
<td>.87</td>
<td>---</td>
<td>.88</td>
<td>.80</td>
<td>.84</td>
<td>.80</td>
<td>.88</td>
<td>.90</td>
</tr>
<tr>
<td>S-5</td>
<td>.80</td>
<td>.92</td>
<td>.94</td>
<td>.88</td>
<td>---</td>
<td>.96</td>
<td>.81</td>
<td>.95</td>
<td>.95</td>
<td>.98</td>
</tr>
<tr>
<td>S-6</td>
<td>.68</td>
<td>.89</td>
<td>.86</td>
<td>.80</td>
<td>.96</td>
<td>---</td>
<td>.74</td>
<td>.92</td>
<td>.87</td>
<td>.94</td>
</tr>
<tr>
<td>S-7</td>
<td>.70</td>
<td>.75</td>
<td>.76</td>
<td>.84</td>
<td>.81</td>
<td>.74</td>
<td>---</td>
<td>.84</td>
<td>.85</td>
<td>.87</td>
</tr>
<tr>
<td>S-8</td>
<td>.66</td>
<td>.90</td>
<td>.92</td>
<td>.80</td>
<td>.95</td>
<td>.92</td>
<td>.84</td>
<td>---</td>
<td>.95</td>
<td>.96</td>
</tr>
<tr>
<td>S-9</td>
<td>.78</td>
<td>.90</td>
<td>.95</td>
<td>.88</td>
<td>.95</td>
<td>.87</td>
<td>.85</td>
<td>.95</td>
<td>---</td>
<td>.95</td>
</tr>
<tr>
<td>S-10</td>
<td>.80</td>
<td>.92</td>
<td>.92</td>
<td>.90</td>
<td>.98</td>
<td>.94</td>
<td>.87</td>
<td>.96</td>
<td>.95</td>
<td>---</td>
</tr>
</tbody>
</table>

* \( r = 1 - \frac{6 \sum D^2}{n(n^2 - 1)} \), from Edwards, loc. cit.
could be detected by analyzing the data in terms of the ten critical areas of administrative behavior. This analysis was performed through two different approaches: (1) by testing the frequencies of behavior of each group of superintendents for the entire category system, and in each of the ten categories; and (2) by testing the frequencies of behavior, and by examining the nature of that behavior, as classified in the subcategories of each critical area.

The analysis through the first approach, which seems to be somewhat more quantitative than qualitative, is reported first. The analysis through the second approach, which is also quantitative in part but which nevertheless takes on certain qualitative aspects, is reported in Chapter VI.

For the sake of convenience and brevity, the most effective administrators were designated as Group 1; the least effective administrators were referred to as Group 4.

**Discriminative Properties of the Category System**

Table XIV shows the frequency distribution, by group, of behaviors in the ten categories. It may be noted that Group 1 not only exhibited the greater total number of behaviors during the observations, but they also exhibited more behaviors in each category than did Group 4. This fact would seem to indicate that the
**TABLE XIV**

FREQUENCY DISTRIBUTION OF BEHAVIORS, BY GROUPS OF SUPERINTENDENTS, IN EACH OF THE TEN CRITICAL AREAS

<table>
<thead>
<tr>
<th>Category</th>
<th>Most Effective Superintendents (Group 1)</th>
<th>Least Effective Superintendents (Group 4)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>269</td>
<td>258</td>
<td>527</td>
</tr>
<tr>
<td>Communicating</td>
<td>767</td>
<td>686</td>
<td>1453</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>335</td>
<td>308</td>
<td>643</td>
</tr>
<tr>
<td>Determining roles</td>
<td>575</td>
<td>382</td>
<td>957</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>91</td>
<td>62</td>
<td>153</td>
</tr>
<tr>
<td>Involving people</td>
<td>102</td>
<td>31</td>
<td>133</td>
</tr>
<tr>
<td>Making policy</td>
<td>71</td>
<td>42</td>
<td>113</td>
</tr>
<tr>
<td>Setting goals</td>
<td>68</td>
<td>58</td>
<td>126</td>
</tr>
<tr>
<td>Using educational resources</td>
<td>36</td>
<td>24</td>
<td>60</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>20</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>2334</td>
<td>1856</td>
<td>4190</td>
</tr>
</tbody>
</table>
superintendents in Group 1 were more active in terms of observable behavior. The fact also tended to confirm an impression of the observer-researcher that the most effective superintendents in the sample worked more steadily and did more things.

**The Chi-square test.** The first test applied to the data to learn whether the category system could be used to discriminate between the two groups of superintendents, on the basis of frequency of behavior in the categories, was the Chi-square test.

The Chi square was computed from a contingency table in which the "independence values" served as the frequencies expected of the two groups in each category in the absence of any actual association with effectiveness. This method appears to have an advantage over using the mean for each category as the expected frequency under the "50-50 hypothesis," since it takes into consideration the interaction of the categories in the total behavior pattern.

The results of this test, shown in Table XV, indicated that there was a strong probability that Group 1 differed significantly from Group 4 in terms of frequency of behavior within the category system. A Chi square of 53.97, with eight degrees of freedom, is
## TABLE XV

**Chi-Square Test** of Differences Between the Group 1 and the Group 4 Superintendents, Based Upon Frequencies of Behavior in the Category System

<table>
<thead>
<tr>
<th>Category</th>
<th>Contribution to the Chi square</th>
<th>Level of Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>4.63</td>
<td>.05</td>
</tr>
<tr>
<td>Communicating</td>
<td>5.01</td>
<td>.05</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>3.39</td>
<td>.10</td>
</tr>
<tr>
<td>Determining roles</td>
<td>7.43</td>
<td>.01</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>.88</td>
<td>.50</td>
</tr>
<tr>
<td>Involving people</td>
<td>23.73</td>
<td>.001</td>
</tr>
<tr>
<td>Making policy</td>
<td>2.32</td>
<td>.20</td>
</tr>
<tr>
<td>Setting goals</td>
<td>.16</td>
<td>.70</td>
</tr>
<tr>
<td>Using educational resources</td>
<td>.45</td>
<td>.70</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>5.97</td>
<td>.02</td>
</tr>
<tr>
<td><strong>Chi square</strong></td>
<td><strong>53.97</strong></td>
<td><strong>.001</strong></td>
</tr>
</tbody>
</table>

*Chi square = \( \sum \frac{(f_o - f)^2}{f} \), from Garrett, op. cit., pp. 123 and 383. In this application, \( f_o \) = the frequency observed; \( f \) = the "independence value," or hypothetical frequency, of the cell.
significant at the .001 level of confidence.\(^{10}\)

The Chi-square test indicated significant differences between the frequencies of behavior of the two groups of superintendents in five critical areas: appraising effectiveness (significant at the 5 per cent level); communicating (significant at the 5 per cent level); determining roles (significant at the 1 per cent level); involving people (significant at the .1 per cent level); and working with community leadership to promote educational improvement (significant at the 2 per cent level).

In the calculation of the Chi square, it was noted that the differences, before squaring, between the observed frequency for Group 1 and the theoretical frequency (the "independence value") for Group 1 were negative in four categories: appraising effectiveness, communicating, co-ordinating functions, and setting goals. The contributions of these four categories to the Chi square totaled 13.19, while the remaining categories, in which the observed frequency was higher than the expected frequency for Group 1, and lower for Group 4, contributed 40.78 to the Chi square. While the Chi-square test does not show the degree of relationship between the

frequency of behavior and effectiveness but rather the probability of association, the test on these data seemed to indicate categories in which the degree of relationship might be sought.

The existence of negative differences, before squaring, between observed and expected frequencies for Group 1 in the categories of appraising effectiveness and communicating, and the fact that differences between the frequencies of behavior of the two groups of men were significant at the 5 per cent level in both of these categories, would point toward the probability of association between proportionately higher frequency of behavior and the least effective superintendents in these two categories. In order to test further this possible relationship, the t-test was applied.

The t-test. The variance between the two groups of superintendents in frequency of behavior in the categories was examined by means of the t-test. This test involved the standard error of the difference of the means of the two groups. The results of this test on each of the categories and on the entire system, using z-scores, are given in Table XVI.

These results indicated a probability at the .05 level of confidence that the category system did distinguish between Group 1 and Group 4 on the basis of frequency of behavior.
### TABLE XVI

**t-TEST* OF DIFFERENCES BETWEEN THE GROUP 1 AND THE GROUP 4 SUPERINTENDENTS, BASED UPON THE MEANS OF THEIR z-SCORES**

<table>
<thead>
<tr>
<th>Category</th>
<th>t-Ratio</th>
<th>Level of Confidence**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>.250</td>
<td>.90</td>
</tr>
<tr>
<td>Communicating</td>
<td>.807</td>
<td>.50</td>
</tr>
<tr>
<td>Co-ordinating</td>
<td>.800</td>
<td>.50</td>
</tr>
<tr>
<td>Determining roles</td>
<td>1.354</td>
<td>.30</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>.929</td>
<td>.40</td>
</tr>
<tr>
<td>Involving people</td>
<td>4.347</td>
<td>.01</td>
</tr>
<tr>
<td>Making policy</td>
<td>1.535</td>
<td>.20</td>
</tr>
<tr>
<td>Setting goals</td>
<td>.514</td>
<td>.70</td>
</tr>
<tr>
<td>Using resources</td>
<td>1.467</td>
<td>.20</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>1.902</td>
<td>.10</td>
</tr>
<tr>
<td><strong>Total category system</strong></td>
<td>2.360</td>
<td>.05</td>
</tr>
</tbody>
</table>

\[
t = \frac{M_1 - M_4}{\sqrt{\frac{\sum x_1^2}{n_1} + \frac{\sum x_4^2}{n_4}} \sqrt{\frac{n_1 + n_4}{n_1 + n_4 - 2}}}
\]

*From Edwards, *op. cit.*, pp. 252-255.

The results of the $t$-test on the $z$-scores also indicated a probability at the .01 level that the category of involving people distinguished between Group 1 and Group 4. While the results were not as significant, there appeared to be some further basis for distinguishing between the two groups by means of the frequencies of behavior in the categories of working with leadership, making and maintaining policy, using resources, and determining roles.

The $t$-test failed to indicate any significant variances between the two groups of superintendents in the categories of appraising effectiveness and communicating, although there had been some indication of significant differences in these two categories as a result of the Chi-square test. Since the $t$-test revealed that the chance factor in these indicated differences was great, and since the variations under the Chi-square test were "negative" for Group 1 (proportionately higher frequency being associated with least effective superintendents) although the higher frequency of behavior was actually shown by Group 1, it was concluded that significant frequency differences between the two groups of superintendents probably did not exist for the category as a whole in the critical areas of appraising effectiveness and communicating.
Findings Related to the First Hypothesis

In order to describe and categorize the administrative behavior of the city superintendents selected as subjects for this study, it was found necessary to expand the original category system, containing nine critical areas, to a system containing ten areas. The category added was designated as fostering human relations.

With respect to certain dimensions and properties of a satisfactory category system, the following findings were made:

1. The category system, as revised, appeared to be exhaustive. All of the 4,190 administrative behaviors which met the criteria for admittance to the data were classified in one of the categories. Each category contained some behaviors.

2. The level of inference which the system required of the observer or the analyst was rather high.

3. The number of categories did not appear to be so large as to make the system unwieldy. However, the problem of exclusiveness of categories seems to remain.

4. The categories seemed to be discrete in that they could not be placed on a single continuum, although some common elements were present in some categories.
5. The categories in the system did not seem to be of the same order in all cases. It appeared possible to subsume portions of some categories under a broader category. A difference in order was also noted when the categories were examined in terms of administrative processes. At least two categories seemed to be composed of energizing or facilitating types of behavior contributing to the effectiveness of behavior in the process categories. This lack of co-ordinateness, particularly in the process categories, may have accounted in part for the fact that the categories were not mutually exclusive.

6. The size and weight of the behavioral unit were not adequately specified for the purposes of thorough statistical analysis. The size and weight seemed to be more acceptable for purposes of subjective qualitative analysis.

The frequencies of the category totals were found in a ratio of 58.12 : 1.00 at the extremes. The total behaviors for each of the ten superintendents were found to be in a ratio of 2.17 : 1.00 at the extremes.

The general pattern of rank order of frequency of behavior in the categories by the ten superintendents appeared to be somewhat consistent, although certain variations were found by using more discriminating statistical tools.
Findings Related to the Second Hypothesis

It has been pointed out that certain factors require care in the manner in which the results of the statistical tests are interpreted. However, the uniformity and consistency with which the data were handled from the beginning of the study have resulted in analyses which provide certain plausible or reasonable findings.

Application of the Chi-square test indicated a probability at the .001 level of confidence that the administrative behavior of the most effective superintendents varied quantitatively from that of the least effective superintendents when analyzed by means of the present category system. The \( t \)-test also indicated this variance at the .05 level of confidence. The higher frequency was associated with the most effective group.

The most effective superintendents differed quantitatively and significantly from the least effective superintendents in the critical area of involving people. The Chi-square test placed this difference at the .001 level of confidence. The \( t \)-test indicated a significant difference at the .01 level of confidence. The higher frequency was shown by the most effective superintendents.

The Chi-square test indicated a difference between the two groups of superintendents in the frequency of behavior in the critical
area of determining roles, with a confidence level of .01. Here again, the higher frequency was associated with overall effectiveness.

In the category of working with community leadership, the Chi-square test pointed to a difference in frequency between the most effective and the least effective superintendents, with a probability at the 5 per cent level, and with the higher frequency being shown by the most effective superintendents.

Although the Chi-square test indicated differences between the frequencies of the two groups of superintendents significant at the 5 per cent level in the categories of appraising effectiveness and communicating, the t-test revealed that the chance factor was too great to conclude that real differences did exist in these two categories. In five cases out of ten, the frequency difference in communicating could be due to chance; in nine cases out of ten, the frequency difference in appraising effectiveness could be attributed to chance. Therefore, it was concluded that the evidence did not confirm significant differences in frequency of behavior between the two groups of superintendents in the critical areas of appraising effectiveness and communicating.
CHAPTER VI

DESCRIPTION OF THE BEHAVIORAL DATA

The second hypothesis being tested in this study required an examination of the data for its qualitative nature as well as for its quantitative characteristics.

At this point, it should be stated that qualitative analysis is not unrelated to quantitative analysis. The two approaches are not dichotomous. "Quantification simply achieves greater precision and reliability in measuring the qualities which are considered important..."¹ Certain rough measurements of qualities of behavior have been presented in Chapter V. But in the present study and under the present category system, these measurements are not sufficiently precise to detect certain characteristics of the behavior observed--characteristics which help to distinguish between the behavior of the most effective superintendents and the least effective superintendents. Consequently, a descriptive analysis of some of these characteristics or qualities will be presented in this

chapter.

In the absence of a completely ordered and acceptable system of qualitative coding of behavior—a problem not considered to be within the scope of the present study—many of the differences between the two groups of superintendents would not be brought to light, except by special treatment through description. As the observer-researcher looked in retrospect at the analysis presented in Chapter V and then at the observations of the superintendents in action, there came an awareness that much of the life and vitality of educational administration was lost through the impersonal approach of the statistical tabulations under the present system of measurement.

An examination of the frequency tables summarizing the behavior of the two groups of superintendents in the critical areas failed to show, in some cases, any significant differences in behavior. But differences did appear to the observer as he saw the men in action. The superintendents did many similar things which show in the data as "equal"; but when the manner or the way in which these things were done by individuals and groups, was examined, differences did appear. It was at this point that the difficulties and inadequacies of the present recording of the observed behavior became apparent. The subtlety or the bluntness, the finesse or the
clumsiness, the appropriateness or the untimeliness of the behavior, the regard for the situation within which the action took place, have not been fully recorded. Yet, some of these things remained in the memory of the observer. And even though memory and impression may be open to question as sources of "scientific" data, some of what remained may be useful in increasing understanding of effective educational administration.

It may be noted that not all effective behavior was limited to the most effective superintendents; and conversely, not all ineffective behavior was observed through the least effective superintendents. Behavior was seen in the opposite relationships as well. As has been pointed out earlier, all of the superintendents observed had achieved some measure of success when judged by empirical standards applied to the profession.

The problem of the present chapter appears, therefore, to be one of bringing to light the most noticeable and consistent differences between the two groups of superintendents as seen through the hypothesized critical areas of behavior.

Qualitative differences in behavior between the two groups of superintendents have been sought in two ways: (1) by examining the kinds of things done within each of the categories--the activities to which the groups gave their attention; and (2) by contrasting the
way or manner in which the groups performed as they did similar things.

To facilitate this analysis, the behaviors in each critical area were divided into subcategories corresponding to the operational definitions of the critical area. The tabulations which resulted from this process have been presented in Tables XVII through XXVI. Each subcategory was assigned a code number for use on the "Keysort" cards. The "definition key" for each code number was used to identify the operational definition within the critical area as given in Chapter IV. For example, the definition key "9" refers to subcategory "9" in the critical area being examined; the definition key "3-a" refers to subcategory "3, " item "a," of that subcategory, in the definitions of the critical area being examined.

The Chi-square test was employed to determine significant differences in frequencies of behavior between the two groups of superintendents in the subcategories of the critical areas. Except where otherwise stated, the expected frequencies were determined under the "50-50 hypothesis."

I. APPRAISING EFFECTIVENESS

In appraising effectiveness, the most frequent acts observed were: (1) formulating judgments or making judgmental statements
or observations concerning the worth, status, or importance of some aspect of the school program, or of a person or the performance of a role, or of some condition (184); (2) analyzing, diagnosing, or "sizing up a situation" (65); (3) expressing satisfaction or dissatisfaction (35); and (4) anticipating desirable or undesirable conditions which might follow an action (30). In the frequencies of these activities there were no statistically significant differences between the two groups.

In only two subcategories were significant differences in frequency observed through the Chi-square test: (1) seeking the judgment or opinion of others concerning the worth, status, or importance of some aspect of the school program, or of a person or the performance of a role, or of a condition (Code No. 3, the higher frequency of Group 1 being significant at the 2 per cent level); and (2) indicating the desirability or undesirability, or the importance or necessity of some aspect of the school program, or of an action, or of a condition (Code No. 7, the higher frequency of Group 1 being significant at the .1 per cent level).

Differences were also observed between the two groups of superintendents by examining the manner in which they appraised

---

^Table XVII.  

2 Table XVII.
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*Subcategory number, pp. 120-123.
effectiveness. Five characteristics seemed to summarize the principal differences.

The Process of Appraising

Although it was not exclusively a characteristic of the most effective superintendents (Group 1), this group was observed applying the process of appraising more consistently and more logically than was characteristic of the least effective superintendents (Group 4). Criteria which were related to objectives were more frequently considered or specified. More care was taken to ascertain and use the related facts in arriving at a judgment. Reason, rather than a hasty expression of emotion, seemed to characterize the behavior more frequently. Judgment appeared to be more considered. The expressed appraisal seemed to be less open to question or criticism, more capable of standing on its own merits. Several illustrations taken from the data of the two groups may help to point up the difference between the groups.

Group 1:

In going through some of the material with his secretary, material which was to be filed by the secretary, S\(^3\) called O's attention to an Ohio Chamber of Commerce report on

\(^3\)S was used to designate the superintendent; O designated the observer.
what S said was how well teachers have been treated in Ohio.

He pointed out that the statistical analysis of teachers' salaries began in 1946, long after other wages had made a tremendous advance and that the final year of comparison for teachers and other wage earners was not the same. The final year for wage earners, S said, was a poor test year. The final year for teachers was last school year. S felt that the comparison was not valid.

* * * * *

Having called an elementary principal to learn the details of the case involving an irate parent who had threatened a teacher, S listened to the principal's version of the case,

and then said: "Then they don't have much of a case."

(S was referring to the parents not having a case.)

* * * * *

While talking on the phone with the chairman of a faculty group studying salaries, S questioned whether the faculty committee should try to submit this matter to the board at its meeting tomorrow. S indicated that

he felt the plan was not worked out completely enough. S said that he doubted whether there would be time to evaluate the total cost of increases under the plan.

* * * * *

Group 4:

While having one or two children read from the workbooks which S had shown to the teachers, S moved his finger along the printed lines as the students read the words.
S told one or two of the teachers after the students had finished reading samples of the materials, that "they can read it, all right."

* * * * *

After a candidate for a teaching position in this city had left S's office,

S said to O that he believed she will be all right. "She has principles." S indicated that her church affiliations would insure a good teacher.

* * * * *

In discussing the city's taking over of the summer recreation program, S stated his opinion to the principal concerning the man whom the council had hired to head up the program.

S said this man knew nothing about physical education and recreation, but that he was a nice fellow,

and that the council may have hired him on the basis of financial need (of the employee).

* * * * *

Involving Other Persons in Appraising

The most effective superintendents more frequently involved other persons who were related to, or affected by, the appraisal and its results. Appraisal appeared to be a cooperative action in more cases. The information, judgments, and opinions of other persons were more frequently sought by Group 1 than by Group 4. Credit was more often given to other persons engaged in the process. Importance of these persons was more readily recognized by Group 1.
This involvement of others by the most effective superintendents did not appear to be a shifting of responsibility for the appraisal function. Rather, it appeared to be a basis for making the best possible judgment. Group 1 appeared to be more willing to take responsibility for the judgment, once it was reached.

Group 1:

While talking with an elementary school principal, S discussed the principal's evaluations of the manner in which teachers in this building were using the larger blocks of time, which S had proposed using two or three years ago.

S asked about the principal's judgment on how well specific teachers were using the larger blocks of time. S inquired about individual teachers on the staff.

***

In talking with the elementary school principal about plans for closing school this spring and opening again next fall,

S said he wonders whether sometimes "We don't try to start school too soon and too fast. Too many things are not thought clear through." S asked the principal whether three days at the beginning of school is enough time for opening school.

***

While talking with the administrative assistant about personnel for next year,

S asked the assistant his opinion about a teacher who wanted to get into remedial reading. S asked if she had the energy, devotion, skill, and adaptability.

***
Group 4:

While S was talking with Mr. T, an elementary school principal, about the transfer of a teacher whom Mr. T was not anxious to have in his building, Mr. T gave S some additional information about the teacher whom S proposed to transfer.

S said: "She seems to be getting along all right now."
S, however, did say that this teacher had demoted several youngsters last fall without his (S's) OK.

(The teacher was working with a combined-grade group).

* * * * *

In discussing with the two visitors the existence of combined classes in one room,

S said that one teacher working with fifteen to eighteen students would be a waste.

* * * * *

In discussing the self-initiated citizens group with which S has found it necessary to work, S said this group represents only one PTA organization. S said that the board president thinks the group is doing good work.

S said he couldn't see what they have done.

* * * * *

The Ultimate Importance of the Object of Appraisal

Differences appeared between the two groups in the objects of appraisal. The most effective superintendents seemed to be concerned more often with things of greater importance to long-range objectives. The level of these referents frequently were different from those of
the least effective superintendents.

**Group 1:**

While talking on the phone, S talked about revisions of plans for finance and for organization of the State Department of Education. When the other party introduced a new idea,

S said that it was a move in the right direction.

★★★★

In reading one of the statements prepared by the vocational education department for the annual report, S showed some enthusiasm for the progress being made in the thinking of this group in recognizing general education as a part of vocational training. He said that over a three-year period,

he has succeeded in getting them to think a little more about general education.

★★★★

S told O that he (S) is taking a Y-Teen group through the new high school this afternoon at 4:00 p.m.

S said that he feels this trip is important so that these students will understand how to use and to care for the new building.

★★★★

**Group 4:**

While talking with the teaching candidate from OSU,

S said that the teachers would be unhappy if this candidate did not join both of these organizations (OEA, NEA). S referred to the long record of 100 per cent membership in these organizations.

★★★★
In talking about the Citizens' Committee, S said

he felt that they were trying to get into things about which they knew little. S seemed to feel that many of the issues which the Citizens' Committee was suggesting for study were things that the layman was not prepared to discuss intelligently.

* * * * *

While the principal was working with 9th grade students on subject selection,

S sat for about 20 minutes. During this time, however, S got up two or three times to examine the work of several students. He looked at the registration sheets of several pupils.

* * * * *

The Use of the Appraisal in Future Action

The appraisals of the most effective superintendents seemed to possess an element of continuity or futurity which was not observed as regularly through the least effective superintendents. There was something in the appraisal which related it to planning for further action or for influencing the direction of action already under way. Both groups appeared to relate appraisal not only to things of the past, but also to objectives which could, or should, require future action. The appraisals by Group 1 seemed to involve a continuing process which did not end in the expression of a judgment. The appraisals of Group 4 more frequently seemed to be an end in
themselves. There were seldom adequate clues that would permit the observer to infer that action based on the judgment would be taken by Group 4.

The present system of unitizing the behaviors, and the observation schedule itself, made difficult complete description of this characteristic of behavior. But some evidence of the difference may be seen in the following illustrations.

Group 1:

In discussing the hiring of people from within the system,

S said that hiring an unprepared person with the understanding that that person will then go on for additional preparation, does not work out satisfactorily.

S requires that the person be prepared when the vacancy appears.

* * * * *

S talked with the director of research and public relations about some materials which are to be used in company advertisements in the newspapers. These materials relate to the schools.

S explained how such advertising covers many persons who would never see this material if it were only mimeographed and submitted to the board of education and to the teaching staff.

S showed O a number of cases where companies in this city had used information from the schools as a part of their advertising. The event toward which this advertising focuses at least part of its attention is the dedication of the new senior high school and the new river project.

* * * * *
While discussing increments and salary ranges, with a faculty committee studying the problem of increased salaries,

S pointed out that a $3.98 item would sell better than a $4.00 item. S was drawing an inference concerning the placement of the top limit. S pointed to a $6,020 top limit at H. as sounding much higher than a $5,950 limit that this group might adopt.

S appeared to be directing attention to certain psychological factors which might make public acceptance of salary increases more certain.

* * * * *

Group 4:

When one of the two visitors suggested that a school architect-consultant might be brought in, he (the visitor) asked if that would do any harm.

S indicated that he (S) hesitated to call in such a consultant, because if a specialist were obtained it might cost $50,000.

These visitors were parents who were urging that S and the board of education take more positive steps to secure adequate buildings for schools in this community.

* * * * *

In relating the circumstances concerning the appearance of a circus in this city, and the dismissal of school early on that particular day,

S said he hated to close school, especially so near election time when a bond issue was being placed before the voters. S said that any way he went, he would lose votes. S said he figured he would lose less by cooperating with the patriotic organization. S said there was nothing you could do about it.

* * * * *
In talking about insurance plans for teachers, S said that he will not collect insurance premiums for teachers under a withholding plan.

S said, "The psychology of the thing is wrong . . . . It is socialism. I don't like it."

***

The Outlook of the Superintendent

In appraisal behavior, differences in outlook were quite apparent. The most effective superintendents could be characterized as being more optimistic and positive in their outlook. They gave evidence of deriving more satisfaction from their work and from their professional associations with co-workers. They recognized progress more readily.

The least effective superintendents appeared to be more pessimistic and negative in their outlook. They complained more frequently about the situation in which they were working. They appeared to give up more easily and to accept conditions as unalterable.

Both groups recognized unsatisfactory conditions. But Group 1 seemed to look for methods of improving those conditions. They gave the impression that something could be done to change the situation. They seemed willing and ready to try. On the other hand, Group 4 appeared not to recognize that they had, or could have,
some control over some existing conditions. Corrective effort seemed rather futile.

While it was not documented, the observer did note that this difference in outlook was also apparent in the associates of the superintendents. Subordinates, in particular, appeared in many cases to reflect the outlook of the superintendent under whose direction they were working. This condition was most noticeable in the cases of secretaries. It was also seen in administrative personnel working nearest the superintendent.

Here again, it is difficult to convey adequately this difference in a few illustrations, since the difference was observed as a thread running through the entire pattern of appraisal behavior. But the following examples will demonstrate the finding to some degree.

**Group 1:**

S dictated a note to a teacher who had taken a group of students to Washington and New York.

He noted the excellent planning which went into the trip.

* * * * *

In explaining to O the case of an irate parent who had "threatened to knock the block off a teacher,"

S said that this particular school had a most understanding faculty. He said that the parents were unusually fine.

* * * * *
While talking with the high school principal and the director of personnel, S spoke about the meeting of the board of education on the previous evening.

S said that the meeting of the board of education was very free and open. S indicated that the members of the board of education, in responding to certain questions directed to them by the press and the public, had "handled themselves perfectly."

***

Group 4:

S said, "I am having an awful time with finances. I have a levy every year, and while you have the board and people in the community who offer to help, you know who has to carry the load."

***

S explained to a parent that he (S) must work out a schedule this summer for the shifts in attendance areas for children.

"I will be the most criticized person in town," S said.

***

In discussing his recent trip to N. Y.,

S said he was discouraged with his own local situation after having looked at schools spending as high as $800.00 per pupil.

***
II. COMMUNICATING

The most frequent behaviors observed in the category of communicating were: (1) saying, or pointing out, something; telling someone something; talking, or discussing, with a person or persons (486); (2) asking a question or seeking information from someone (249); (3) receiving, looking at or reading, or using written or printed materials as sources of information (161); (4) making or receiving telephone calls (126); and (5) preparing and making available written or printed materials as sources of information (100). 4

Several differences between the two groups appeared in the kinds of things the superintendents did as they engaged in communicative acts.

Giving Information

In the subcategory containing behaviors which were seen as providing, giving, or sharing information (Code Nos. 1-5), the most effective superintendents showed a higher frequency than did the least effective superintendents. The Chi-square test, using the "50-50 hypothesis" on the subcategory totals, placed this difference

4Table XVIII.
at the .05 level of confidence. However, when the Chi-square test
was applied through use of a contingency table, the difference
between the two groups was significant at the .001 level. Two items
of the subcategory appeared to contribute most to the difference.

Group 1 differed from Group 4 in the number of times they
said something, or told someone something, or talked or discussed
something with other persons (Code No. 1). The differences in the
frequency observed and the frequency expected ("independence
value") were in favor of the least effective superintendents. The
difference was significant at the .01 level. It appeared that Group 4
spent proportionately more time talking than did Group 1.

But in this kind of communicating, qualitative differences also
appeared. While the frequency was proportionately higher for
Group 4, the effectiveness seemed to be predominantly on the side
of Group 1. The most effective superintendents talked more often
about things of a significant nature—things related to objectives or
important action. The least effective superintendents tended to talk
aimlessly at times and without purpose; many of their statements
were vague, uncertain, or ambiguous. Group 1 gave information
which other persons could use in carrying out their own work, thus
freeing the superintendent from many minor details. After having
conversed with the most effective superintendents, other persons
TABLE XVIII

FREQUENCY OF BEHAVIOR, BY SUBCATEGORIES, WITHIN THE CRITICAL AREA OF COMMUNICATING

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Total 183 195 156 92 141 767 130 164 151 114 127 686 1453

*Subcategory number and item letter of the subcategory, pp. 124-125.
appeared to be more confident and to proceed with greater assurance; the communication set a direction. Group 4 was called upon more often to give information on things which Group 1 had provided through policy statements, general instructions, or rather consistent application of precedent. To the observer it appeared that the most effective superintendents gave more attention to discussing relationships rather than to the many details which occupied the attention of the least effective superintendents.

Group 1:

In talking with the high school principal about staff requirements for next year, S indicated he was shading a little in favor of the principal because of the changing pattern of the high school.

He indicated that attendance was up, that the high school was attempting to meet needs in a better way, and that it was gearing down to slower people. This might require more staff members since the percentage of survival might be a little higher.

***

While talking with the assistant superintendent about the general policy for the student center,

S referred to the smoking problem created by persons outside the school. He also referred to the fact that adults coming into the school center after one of the programs presented in the school-civic auditorium, had abused some of the furniture.

***
S related to the band director how S had met with a group of citizens

and had talked informally with them about some of the blocks which existed preventing educational progress.

* * * * *

Group 4:

In discussing the proposed building program with the two parents,

S said he had given the newspaper a story which would appear this evening. He said that he had not given the newspaper too much specific information about definite plans.

* * * * *

When the salesman of books, supplies, and equipment came into S's office,

S talked about his method of supervision. S said the teachers went right on with their work, paying no attention to S unless he went up to talk to them.

(As O remembers from previous observations, the activity in most of the rooms which S visited did stop when S arrived in the room. This may have been due to the presence of O.)

* * * * *

S returned the telephone call of the board member. Apparently the board member had learned that a child had been sent home during the morning. From previous conversation, O believes that the child was quite dirty, and perhaps foul smelling.

S suggested that maybe the odor made Miss B, the teacher, sick. S said sometimes he gets that in his office. He named two or three cases.

* * * * *
The most significant difference between the two groups of men in the subcategory of giving information appeared in the use of written materials as sources of information (Code No. 2). The Chi-square test indicated a probability of .001. The most effective superintendents made far greater use of written communication in giving or sharing information. They devoted more attention to drafting, dictating, and writing bulletins, announcements, memoranda, letters, and reports than did the least effective superintendents. Although the ultimate effectiveness of this form of communication could not always be determined by the observer, the potential coverage of the communication of Group 1 was much broader than that of Group 4.

There was also some evidence that the co-workers of the most effective superintendents were generally better informed about school affairs than were the co-workers of the least effective superintendents. This condition also seemed to extend beyond the school into the community. Evidence of this condition was obtained, in part, from the kinds of questions asked of the superintendents by persons on their staffs and from the community.

**Group 1:**

S publishes a mimeographed annual report and distributes the report to the Board of Education, administrative staff members, to the school libraries, to the city library, and to city officials.
(O saw a copy of this report, and confirmed its distribution with a secretary.)

\* \* \* \* \*

S prepares and forwards to the members of the board of education, four days before each board meeting, his "Board Letter."

The board letter contains S's recommendations for board action, and information pertinent to measures to be considered. (O observed S preparing such a letter.)

\* \* \* \* \*

S publishes and distributes regularly a printed bulletin concerning school affairs. He includes certain community affairs and citizens related to school activities.

This bulletin has a wide distribution outside the school as well as some distribution outside the city. (The observer has seen copies of this bulletin in offices of other city school superintendents.)

\* \* \* \* \*

Since O had last been in S's office on the previous observation, S had completed the preparation of a 12-page pamphlet dealing with "The Educational Program in Relation to the Budget."

\* \* \* \* \*

Group 4:

After answering the secretary's question concerning the billing of an item to the board of education instead of the S. Fund, S dictated to his secretary a letter relative to the proper billing.
This letter was addressed to the maker of the bill in question.

* * * * *

On the bulletin,

S had also said: "I will come to the elementary buildings during the last week for the purpose of aiding teachers and principals with the necessary promotions, conditions, and failures.

* * * * *

S dictated a letter to an applicant for a teaching position in this system.

He dictated very slowly. There were long pauses between sentences.

* * * * *

While talking with the teaching candidate, who had only a temporary certificate, S explained that he had three teachers with temporary certificates, but that

he had written them letters telling them that they must present evidence that they have gotten additional training since the temporary certificate was issued.

* * * * *

Obtaining Information

In the subcategory containing acts classified as seeking, obtaining, or receiving information, the least effective men showed a higher frequency than the most effective men. The Chi-square test,
using a contingency table for Code Nos. 6-9,\(^5\) indicated a difference at the .01 level of confidence. Two items of the subcategory appeared to contribute most to the variation.

Group 1 differed from Group 4 in the use they made of written or printed materials (Code No. 7) as sources of information. In this item the frequency of Group 1 was higher than that of Group 4 and the variation was indicated at the .05 level. Although the frequencies were low in the breakdown of this item, the following patterns were noted: (1) Group 1 more frequently requested, received, and used reports as sources of information; (2) Group 4 devoted more time to reading mail, advertisements, newspapers, and memos; (3) Group 1 sought specific information by reading or studying more frequently; and (4) Group 1 made more use of application blanks and credentials in studying qualifications of teacher candidates.

**Group 1:**

S told O that:

S requests and receives written reports from each elementary principal on the general conduct of the school, the success of the school in meeting its goals, success of efforts to utilize longer blocks of time in instruction,

\(^5\)Code No. 10 was omitted in this calculation because of low frequencies.
and any suggestions the principals may have for better operation of the schools.

O observed S in these activities, thus confirming the statement.

* * * * *

S received and looked at a report from a teacher who had taken a group of students to Washington and New York over the Easter vacation period.

* * * * *

After having told O that the board of education is going to put up a 3-mill operating levy this fall,

S began reading from a copy of Drury's School Guide. S was reading in the section on legal forms pertaining to operating levies and elections. S studied this book for some time.

* * * * *

After having returned to his office from an elementary school building, where he had hoped to talk with an elementary principal about a problem case which had arisen and which involved an irate parent,

S looked up the background of two of the students who were involved. S read from the permanent record cards of these two students.

* * * * *

Group 4:

While reading the morning mail,

S opened a letter containing the OEA Legislative Report. He glanced at the Report, then threw it in the waste basket.
S spent about 25 minutes opening and disposing of his morning mail.

(In O's opinion, the quantity of mail received was rather small.)

After returning to his office,

S seated himself at his desk, picked up a pamphlet from the desk, glanced at it, and laid it down. Then he glanced through a pile of printed matter. Very shortly after picking the material up, he replaced it on his desk.

Group 4 was observed to spend considerably more time than Group 1 questioning candidates for teaching positions (Code No. 8). In this activity, the Chi-square test placed a probability of .01 on the difference. Many of the questions which the least effective superintendents asked of candidates were repetitions of questions which had already been answered on application forms. And Group 4 asked more questions than Group 1 concerning the personal life of the candidate.

**Group 4:**

While talking with an applicant for a teaching position,

S asked the candidate if he had had any administrative responsibility in his present job.

* * * * *
While talking with a teaching candidate, who was a member of the Nazarene Church,

S asked the candidate if she allows her religion to influence or enter into her school work.

***

While talking with a teaching candidate,

S asked the candidate whether she could handle discipline cases. He asked the candidate if she had ever slapped a student.

***

While talking with the teaching candidate from OSU,

S asked the candidate if he smoked, and stated that what the candidate did in private was his own business, but that teachers were expected not to smoke on the street, in public places, or in the building. S asked the candidate whether he drank. S stated that he believes teachers should set good examples for pupils.

***

In passing, it may be of interest to note that the least effective superintendents spent more time looking for misplaced items than did the most effective superintendents. There seemed to be more order and method in the way Group 1 handled and accounted for informational materials. They generally knew where to find items wanted.

**Retaining Information for Future Use**

In the subcategory of retaining information for future use (Code Nos. 11-13), the Chi-square test, based on a contingency table,
indicated a difference between the two groups of superintendents significant at the .05 level of confidence. The principal difference under this test appeared in the preparing or keeping of records, summaries, minutes, charts, or lists (Code No. 12). Group 1 devoted more time and attention to this activity than did Group 4, the statistical probability being .05.

The probability of true difference was even greater (.01) when the items of this subcategory were tested individually by the Chi square using the "50-50 hypothesis." Here, making notes or reminders (Code No. 11) differentiated between the two groups, with a probability of .05. The higher frequency of Group 1 in keeping or using files, bulletin boards, and notebooks or folders for retaining information (Code No. 13) was significant at the .01 level.

Group 1:

S checked a review of the administrative council meeting held recently.

S said he always prepared such a summary so that he could prepare for the next meeting of the council.

* * * * *

A young man who was being assigned as an elementary principal next year, came into S's office for a conference.

S has prepared a list of items which he is discussing with all of the principals when they come in for their conferences.
(O saw S refer to this list during the conference.)

****

S brought with him to the principal's office all of the write-ups prepared by teachers in this building.

He had previously bound them in a large folder.

(These write-ups concerned teachers' evaluations of the reorganization of the schedule to permit use of larger blocks of time.)

****

Group 4:

After having talked with a property owner who complained that children were tramping on his flowers,

S wrote a note concerning the phone conversation.

O assumed that S was going to send the note to the elementary school principal.

****

In opening his mail, S looked at some of the bills which he had received. He explained to O how he takes care of these bills.

S uses a large piece of tagboard approximately 12 by 18 inches, ruled off in columns, to record the various budget expenditures for bills which he presents to the board of education.

S explained to O that this gives him a running account of the amount of money left in each of the funds. O saw S enter figures on this record later.

****
He "files" much of his work, particularly publications, in a rather informal manner on the bookshelves lining one wall of his office.

The observer has seen this material on the bookshelves. He saw S go to the shelves and take some desired material from them.

* * * * *

Verifying Communication

A difference was noted between the two groups of superintendents in the subcategory of verifying communication by seeking authenticity, checking on the dispatching and reception of communication, and editing, proofing, and signing communication (Code No. 14). Although one superintendent (S-1) contributed 60 per cent of the total behaviors in this subcategory, all but one of the men were observed in this behavior, even though the frequencies (except that of S-1) were low. While the Chi-square test, indicating a probability of .001, may be questioned in this case because of skewness, the act seemed worthy of mention.

The consistency and regularity with which S-1 (a Group 1 superintendent) verified his own communication seemed to set him apart from the other men. Especial care was given to communication directed to persons outside the school system and particularly to the press. Although the effectiveness of this care could not be
ascertained in many cases, an inspection of news stories relating to
the school system left no doubt in the mind of the observer that a
favorable press was enjoyed not only by the schools, but also by
S-1 himself.

**Group 1 (S-1):**

S checked again with the secretary to see that a
teacher's contract was mailed air mail.

*****

S indicated to O that

he (S) had checked, previously, the first draft of the
minutes and had made some corrections, and then had re-
submitted the minutes to the secretary for retyping.

*****

After returning from lunch,

S read the dictation concerning his interviews with
teaching candidates. After reading the copy, he
initialized the notes and placed them in their files.

*****

The board member had prepared a newspaper article explaining
the procedure which the board was following in the selection
of S's successor. Concerning the newspaper article,

S said: "We revised it and cleaned it up a little."

S gave O a copy of the press release to read.

*****
General Observations

In general, the most effective superintendents were seen as making use of a greater variety of the tools or media of communication than the least effective superintendents. And due at least in part to this usage, Group 1 seemed to obtain a broader coverage in communication, both outgoing and incoming. There seemed to be a conscious effort on the part of these men to keep all persons informed who might be related to, or who needed to know about, a matter under consideration. Communication procedures seemed to be more orderly and consistent in the offices of the Group 1 men. The flow of communication appeared to be smoother. The most effective superintendents made much more use of secretaries and receptionists in handling and routing communication, both incoming and outgoing. Much incoming communication, particularly requests for information, was directed to other staff members who had been assigned responsibility in the area of question. This resulted in a saving of time to both the superintendent and to the inquirer. But, in this connection, it should also be noted that the secretaries of the Group 1 men seemed to be more adept in deciding what communication needed to be directed to the superintendent rather than to some other staff member. These secretaries and receptionists exhibited considerably
more skill in screening the communication than did the secretaries and receptionists of the Group 4 men.

Another condition which was generally observed in the cases of the most effective superintendents was that incoming communication seemed to flow more smoothly. Other staff members appeared to be more at ease and to speak more freely with these men than with the Group 4 men. By their receptivity, Group 1 seemed to place more importance upon the concerns of other communicators; they indicated a willingness to listen to, and even to pursue, the topic, if the latter act seemed fruitful. It might even be surmised that these other communicators had found from previous experience that their communication was put to use and had some effect.

Although it was not statistically recorded, the observer was left with an impression that the least effective superintendents delayed or "lost" communication passing through them more often than did the most effective superintendents. It seemed to take longer for something to happen as a result of the communication.

III. CO-ORDINATING ADMINISTRATIVE FUNCTIONS AND STRUCTURE

In the critical area of co-ordinating administrative functions
and structure, the behaviors most frequently observed were:

(1) settling competitive demands for time, financial resources, space and facilities, equipment and materials, personnel, and demands related to program or organization (214); (2) planning (140); (3) leaving a desk or office, moving from one place to another, or going someplace, in order to do something (132); (4) discussing or examining possible or alternate solutions to problems of space, enrollment, attendance areas, renovation, teacher assignment, or retirement (43); and (5) picking up, moving, or taking something someplace, or getting or bringing something (43).

In looking at the breakdown by subcategories, a number of differences appeared in the kinds of things the superintendents did. Because of the existence of scattered low frequencies throughout the subcategories, the Chi-square test based on the "50-50 hypothesis" was applied instead of the test involving determination of hypothetical frequencies through a contingency table.

**Settling Competitive Demands**

In the subcategory of settling competitive demands (Code Nos. 1-6), the two groups of men differed significantly. The probability

---

6 Table XIX.
### TABLE XIX

**FREQUENCY OF BEHAVIOR, BY SUBCATEGORIES, WITHIN THE CRITICAL AREA OF CO-ORDINATING ADMINISTRATIVE FUNCTIONS AND STRUCTURE**

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*Subcategory number and item letter of the subcategory, pp. 126-130.*
was indicated at the .01 level.

In this subcategory, the most noticeable difference appeared in handling competitive demands for time (Code No. 1). The difference on this item was significant at the .001 level of confidence. The most effective superintendents made and kept more appointments; they gave more attention to preparing agenda and scheduling discussion; and they provided time for other persons to do something more often than did the least effective superintendents.

Group 1:

In talking with S, the teacher who was to be transferred to another building, explained to S why she did not want to be transferred.

S arranged to talk in person with this teacher to complete the transfer.

* * * * *

S provides a ten-minute period at each board meeting for the presentation of some general information.

This general information may concern some teacher or administrator who has achieved or served well. It may concern something which is going on in the schools. These matters do not require action by the board of education, but serve merely to keep them informed of some of the things going on in the school system.

* * * * *
In discussing the selection of a principal for the new high school, S indicated that

he will provide the new principal with time and help so that the principal may devote his major effort to the co-ordination of instruction.

S reported to O that since taking his position in his present city,

he had obtained released time during which teachers might meet and work on professional problems.

Group 4:

After having discussed very briefly the method that the parents proposed to use to finance the post-commencement entertainment for graduates,

S called the meeting to a close quite abruptly; with almost no delay he walked out of the group and started for his office.

O heard one parent say, "We were sure dismissed in a hurry."

S related to O the circumstances relative to the appearance of a circus in this city. S said that the sponsoring organization (a patriotic organization) had not talked with S about the coming of the circus, but some members of the organization had talked with two board members. One of the board members approved dismissing school early on the day the circus was in town, the other board member did not approve. Finally, representatives of the organization came to S to talk with him about dismissal.
S said, three board members and he (S) agreed to close the school at 2:00 o'clock so that the children could attend the circus.

* * * * *

Mr. J, custodian at the high school, was instructed by S to use Mr. M in carrying on the work at the high school. S explained that

this would give Mr. J more time to keep the grounds around the building cleaned up.

* * * *

In other activity in this subcategory, the Group 4 men showed proportionately more behaviors in settling or attempting to settle demands for finances, for space and facilities, and for equipment and materials. This fact was revealed through the Chi-square test based on a modified contingency table involving Code Nos. 1-4. It appeared reasonable to surmise that some of this difference might be attributed to the differences in the situations within which the superintendents worked. But a portion of the difference seemed to be due to the kinds of things to which attention was directed. The Group 4 men seemed to be confronted with matters not sufficiently covered or anticipated through long-range planning. They appeared to be concentrating on ways of living with the situation from day to day rather than upon improving the situation and eliminating some of the causes of the conditions.
In his mimeographed publication, "The Educational Program in Relation to the Budget," S had also summarized expenditures and income for the past two years, the present year, and he had included recommendations for the budget for next year.

The breakdown of funds was quite complete, and was in accord with the fund designation used by the clerk-treasurer of the board of education.

* * * * *

In relating to O that the board was changing the entrance age for first graders, S indicated that there might be some protests from parents on this question. He said there had been no protest thus far, but, so that he may be prepared should such a protest come before the board,

he has prepared statistical data and analyses relative to the problem so that he will be able to present the thinking of the board without being "pushed" and without appearing to be unprepared.

* * * * *

In noting a difference in the estimates for total enrollment in the high school for next year,

S attempted to reconcile these two different estimates.

The high school principal was asking for 5 additional teachers. The director indicated that his figures called for two additional teachers.

* * * * *
S said

he had purchased the tractor and the cutter-bar because it was requiring ten man-days per week to keep the lawn and fields mowed. S indicated that the new equipment would save time.

* * * * *

Group 4:

While discussing the payment of a music teacher's expense to C (to have some instruments repaired and to buy some other instruments), S said he would talk with the music supervisor (or band director), and if it was all right with this man,

S would take the travel expense out of the Music Fund. S said he thinks this is the way it will be.

* * * * *

In discussing the hiring of teachers for next year, S said

he has had to give extra money for extra work in order to hire some teachers.

* * * * *

Since S had in his car, and took with him into the industrial arts shop, a small pulley for a drill, O infers that: S had purchased this pulley for the industrial arts instructor at the high school.

S took this pulley to the instructor.

(To deliver the pulley, S drove to the high school building.)

* * * * *

Although the frequencies were low, it appeared that the most effective superintendents gave more attention to anticipating future needs for personnel (Code No. 5) and to changes in program and
organization (Code No. 6), than did the least effective men. They appeared to the observer to be working to stay ahead of the problem, rather than waiting to act until the problem was upon them.

**Planning**

The subcategory of planning, taken as a whole, failed to show a significant difference in frequency of behavior between the two groups of men. However, at three points within the subcategory, significant differences in frequencies did appear.

The Group 1 superintendents planned more frequently than Group 4 to attend meetings, to hold conferences, to keep appointments, to be out of town, and to go someplace (Code No. 7). The difference between the groups was significant at the .05 level.

**Group 1:**

Mr. A, of OSU, has been conducting a course in case study of behavior and guidance for members of the staff of the school system. The last meeting will be held this week.

S said that he is going to attend (is planning to attend) that meeting.

* * * * *

S told O that

he is going to meet with the Council on Instruction at 3:30 this afternoon to "straighten them out on purposes."

* * * * *
While talking on the phone, S told the other party that

he (S) is meeting with the county legislative committee
tomorrow at lunch.

***

In explaining his activity for the afternoon,

S said he was meeting with the editor of the newspaper
at 1:30 p.m.

***

On the other hand, the Group 4 superintendents spoke more of
plans for changes in buildings, program, and equipment (Code No.
10). The probability of difference was .01. However, the realization
of many of these plans was conditioned upon the availability of
additional finances from proposed or hoped-for levies or bond issues.

Group 4:

After one of the parents showed the purpose of a building-
program consultant (he had a better understanding of the role
of the consultant than did S, in the opinion of O) and how the
consultant might save the board money,

S said: "We plan to do that."

Just previously, S had said he would hesitate to call in such
a consultant because of cost.

***

In talking about some of the difficulties that had shown up in
the new elementary school building,
S said he was going to have the auditorium-gymnasium sound-treated as soon as he could get money for it, probably this summer.

* * * * *

The two visitors asked S if the newspaper story outlined procedures which would provide for the elimination of two grades in one room. They also wondered if it took into consideration the possibility of population growth.

S said: "I am planning to expand as much as I can within the limits of the budget.

* * * * *

While talking with the teaching candidate, a former PTA unit president, S said,

concerning the building program which he was planning, that by next fall "the plans will be cut and dried" and then it will be just a matter of "promoting."

* * * * *

A third difference in this subcategory appeared in planning to do something in the near future, such as write, discuss, work, have someone do something, or work out a plan (Code No. 11). The difference in frequency was significant at the .01 level. In addition to showing a higher frequency in this item, the most effective superintendents appeared to plan on a somewhat different level than that which typified the least effective superintendents. The things planned for were generally not of the same order.
Group 1:

While talking with an elementary school principal about the budget for next year, S said

he plans to discuss all budgets of all principals at a meeting of all principals in the near future.

* * * * *

In discussing the newspaper release concerning the method which the board was using to select S's successor,

S said he was going to send the release to the community paper, published only once a week, today, but that he would hold the release from the downtown papers until Wednesday so that they would not get a "scoop" on the local paper, which appears on Wednesday.

* * * * *

In discussing his encouragement of teacher attendance at professional meetings, S said that

he is going to work out with the teachers some sort of a plan which will make attendance possible for as many teachers as possible, but which will stay within the amount of money budgeted.

S indicated that the teachers had taken increasing interest in attendance at professional meetings.

* * * * *

In discussing with O what S was going to say to the faculty Council on Instruction when he met them later in the day,

S said he plans to place the responsibility for the decision on the Council.

This decision related to a future course of action by the Council. In a sense, the future effectiveness of this Council depended,
at least in part, upon the decision which they were going to have to make.

* * * * *

Group 4:

In talking by phone with a teacher or principal about a questionnaire concerning a student teacher, S said that he is going to (plans to) return the questionnaire unanswered with the comment that he had no opportunity to observe the student teacher.

* * * * *

In talking about deductions made for retirement, S said he is now paying 6% to the retirement fund on a $300 car allowance made by the board of education.

S said he is going to find out about it.

S later indicated that he was going to stop paying this amount ($18.00 per year) if he could.

* * * * *

After O arrived, and after a brief chat concerning some faculty members in the Department of Education at OSU, S continued preparing his speech for the commencement program tonight.

S said he was going to introduce the speaker, and give a message to the seniors.

* * * * *

In discussing his responsibility as president of the Boy Scout Council for this county, S reported that he plans to have his secretary make some phone calls to all of the council members in order to assure better attendance than the previous year.
Examining Possible Solutions to Problems

In their co-ordinating activity, the most effective superintendents discussed or examined possible or alternate solutions to such problems as space, enrollment, attendance areas, remodeling, and teacher assignment or retirement, more often than did the least effective superintendents (Code No. 14). The difference between the two groups was significant at the .001 level of confidence.

Not only was there a significant variation in frequency, but the two groups also differed in the involvement of other persons in looking for a solution. Group 1 used other persons more frequently; they requested opinions, ideas, and information bearing upon the problem; these other persons seemed to have a greater part in helping the superintendent reach a decision. And here again, the most effective men seemed to be attempting to stay ahead of many of the problems which plagued the least effective men, and which might cause the latter to make hurried, and sometimes unconsidered, decisions.

Group 1:

While at the kindergarten building, S talked with a mother who had a blind child in this kindergarten group. The mother was quite anxious that this type of kindergarten arrangement be continued. While O did not hear all of the conversation,
S discussed with the mother certain alternatives or means by which this class could be continued.

Sightless and partially-sighted children were placed with normal children in this kindergarten.

* * * * *

In talking about staff requirements for next year, the high school principal indicated certain complications in Home Economics because of the transfer of girls from the commercial area.

S asked the high school principal what could be done. S suggested converting a section of the old cafeteria and putting some students in the auditorium which is to get new furniture.

* * * * *

While discussing with the high school principal the problem of retiring a teacher who was ill, both mentally and physically,

S suggested that maybe if the man did want to come back, in the event a teacher had been hired to replace him, the man could be given some other assignment where he could do little harm.

* * * * *

While dictating his letter to the members of the board of education concerning the agenda for the next board meeting,

S dictated that the resignation of the curriculum coordinator might make possible consideration of some changes in the administration organization.

* * * * *
Group 4:

Before returning to the central building, S explained to O some plans he (S) has proposed for the renovation of this elementary building.

He described how the stairways would be relocated and how other changes would be made on the first floor.

S told O that he (S) will probably have to find some additional space outside present school buildings for some classes until the new elementary building is completed.

S told a teacher, in response to her inquiry, that it might be possible to pay her her summer checks at the time school is out. The teacher was planning a trip to Europe and wondered how the checks would be handled in her absence, if she did not collect them at the end of school.

S suggested that the bank might accept her checks and deposit them while she was gone.

Moving About

The least effective superintendents were observed to move about more often than the most effective superintendents as they performed their duties (Code No. 18). The men in Group 4 left their desks or offices, and went from one place to another more than did the men of
Group 1. The frequency difference was significant at the .001 level.

This movement usually preceded a subsequent behavior which could be categorized in one of the critical areas. The breakdown of this subsequent activity was as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Group 1</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Communicating</td>
<td>9</td>
<td>37</td>
<td>46</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>20</td>
<td>32</td>
<td>52</td>
</tr>
<tr>
<td>Determining roles</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Unknown to observer</td>
<td>1</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38</strong></td>
<td><strong>94</strong></td>
<td><strong>132</strong></td>
</tr>
</tbody>
</table>

In the cases of the least effective men, this movement appeared to result in more frequent interruptions of an immediate activity in which they were engaged. As a result, this group did not appear to sustain an activity as long as the most effective group; they seemed to work less steadily and somewhat less persistently than Group 1. This condition, in the cases of four of the five men in Group 4, seemed to the observer to result in considerable wasted motion. There seemed to be more jumping from one thing to another.

In general, the most effective superintendents seemed to co-ordinate functions more easily and consistently from "the center of
When they chose to leave their desks or offices, the cause seemed to rest in a more crucial or significant matter than was true for the least effective superintendents.

**IV. DETERMINING ROLES**

An examination of what the superintendents did as they were determining roles showed the following kinds of acts as being the most frequent: (1) suggesting to, or telling, someone (except a secretary) what they should do or what they should not do (335); (2) asking or telling a secretary to do something (199); (3) assigning himself or accepting a role, or offering or refusing to do a job (103); (4) explaining or interpreting a person's role, including his own, to another person (82); and (5) seeking or securing suitable persons to fill roles or positions (77).  

Several statistically significant differences in frequencies of the subcategories appeared to distinguish between the two groups of superintendents. The Chi-square test was used to locate these differences.

---

7Table XX.
Table XX

FREQUENCY OF BEHAVIOR, BY SUBCATEGORIES, WITHIN THE CRITICAL AREA OF DETERMINING ROLES

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Definition</th>
<th>Most Effective Superintendents</th>
<th>Least Effective Superintendents</th>
<th>Sample Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-4</td>
<td>S-5</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>15</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>2-a</td>
<td>78</td>
<td>39</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>2-b</td>
<td>9</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>2-c</td>
<td>52</td>
<td>38</td>
<td>29</td>
</tr>
<tr>
<td>5</td>
<td>2-d</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>2-e</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>10</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>4</td>
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<tr>
<td>9</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<tr>
<td>10</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>1</td>
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<tr>
<td>11</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>0</td>
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<tr>
<td>12</td>
<td>8</td>
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<td>5</td>
<td>4</td>
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<td>13</td>
<td>9</td>
<td>20</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>14</td>
<td>10</td>
<td>15</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total: 215 128 67 76 89 575 102 75 77 46 82 382 957

*Subcategory number and item letter of the subcategory, pp. 131-132.
Securing Persons for, or Assigning Persons to, Positions

The most effective superintendents were observed to engage more frequently than the least effective superintendents in acts related to securing suitable persons to fill roles or positions (Code No. 1). The difference was significant at the .001 level of confidence. An analysis of the subcategory revealed the following frequencies for three types of acts:

<table>
<thead>
<tr>
<th>Look for, or engages in the process of securing personnel</th>
<th>Group 1</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Considers or recommends employment, transfer, or dismissal of persons</td>
<td>29</td>
<td>11</td>
<td>40</td>
</tr>
<tr>
<td>Hires or assigns persons to positions, or transfers persons</td>
<td>19</td>
<td>10</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>24</td>
<td>77</td>
</tr>
</tbody>
</table>

The most effective men seemed to consider more often the opinions and wishes of other persons before making assignments of personnel. And their investigation of qualifications of persons considered seemed to be somewhat more extensive and thorough.
Group I:

When S finished talking with the young man who was in his office at the time O arrived, and when the young man had left the office, S came to the outer office, greeted O, invited him in, and said:

"I have been trying to get him (the man who had just left the office) as an elementary principal for two years."

* * * * *

S immediately took another telephone call from a lady, to whom he apologized for keeping her waiting. The conversation concerned a meeting of the county legislative committee. S talked about the necessity of impressing the state legislators with a crowd at that meeting.

S suggested the name of a man who might "put a little heat" on those legislators who had thus far declined or had not responded to invitations to attend the meeting, in order to get them there.

* * * * *

After the secretary had gotten Mr. C, a junior high school principal, on the telephone,

S talked with him about assigning a junior high school teacher to the senior high school to teach foundry and electricity. S said he had talked with the high school principal about this matter, and had gotten the principal's OK.

* * * * *

S drove to the home of the wife of a printing teacher in order to talk with her about a leave of absence or possible retirement for the teacher. The teacher had suffered a stroke recently, but had been carried on the staff this year.
S said (to O) that the teacher is going to have to request a leave, or retire.

* * * * *

Group 4:

While discussing the post-commencement entertainment for seniors,

S told the parents that he thought it would be proper for this parents' group to ask the teachers to be chaperones. S also thought that teachers should attend the Monday evening meeting. S said that there would be three teachers there. S named the teachers who would attend.

(However, as far as O could determine, it appeared that S made this statement without consulting the teachers involved.)

* * * * *

While discussing with the high school principal the candidates for the coaching position, S talked about a prospect from OSU who had applied earlier.

S said he would be in favor of hiring him (the OSU man) while he is "hot after the job."

* * * * *

S said that

he has had to let teachers go more frequently because of what they do in the corridors and in the rest rooms than because of what they do in the classrooms.

* * * * *
S said he hires the teachers for the slow-learner school, but that the county pays the salaries. S said that his school system furnishes the rooms and the service for the school.

* * * * *

Use of Secretarial Personnel

The most effective superintendents made much greater use of secretaries than did the least effective superintendents (Code No. 2). The difference in frequencies between the two groups was significant at the .001 level. In the data of this type of behavior, a subsequent act by the secretary was expected to follow the superintendent's request or order. These subsequent acts were identified as follows:

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Communicating</td>
<td>98</td>
<td>32</td>
<td>130</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>29</td>
<td>14</td>
<td>43</td>
</tr>
<tr>
<td>Determining roles</td>
<td><strong>16</strong></td>
<td><strong>4</strong></td>
<td><strong>20</strong></td>
</tr>
<tr>
<td>Total</td>
<td><strong>149</strong></td>
<td><strong>50</strong></td>
<td><strong>199</strong></td>
</tr>
</tbody>
</table>

The secretaries of the Group 1 men seemed capable of handling many routine items without asking or being told; secretaries of the Group 4 men seemed considerably more dependent upon the superintendents for direction of their work. While it was not definitely
ascertained, it would seem plausible to account for some of this
difference on one or both of two bases: (1) either the Group 1 men
generally hired more resourceful secretaries; or (2) the Group 1
men had trained or instructed their secretaries to take over certain
responsibilities which they were seen to assume.

Group 1:

S asked his secretary to check with Mr. D to see that
the new swimming pool contract was in.

*** ***

There seemed to be some question about this particular item
on the requisition, and

S told his secretary to check up to see if this was a
re-order. He told his secretary to find out what the
teacher was doing with this particular item.

(It appears that this was about the third requisition for this
kind of item.)

*** ***

Because he was not satisfied with a particular page of the
agenda for the board meeting,

S asked his secretary to rewrite and reorganize a page
of the agenda.

*** ***

S called his secretary by phone and

asked her to see that all of the resignations of retiring
teachers were in before the board meeting the next afternoon.

S cited one person in particular.
Group 4:

After having read another sheet of paper handed to him by the representative of the Department of Vocational Training, State Department of Education, concerning the training program for volunteer firemen in this city,

S handed his secretary the paper and said: "See if you can understand this. I can't."

* * * * *

The secretary came to S's office to report that a student wanted to talk with S about a position.

S told his secretary to send the student in.

Apparently S had known previously that this girl was coming in, and that the position she was interested in was that of an assistant to the librarian.

* * * * *

When S had completed a list of successful bids for janitor supplies for next year,

S asked his secretary to check his compilation while he read off the large tabulation sheets.

The secretary read the items.

* * * * *

S rang for his secretary and when she came in

S asked her to close the door between his office and the secretary's office.

The secretary was running a mimeograph machine. There was also considerable loud talking.
Accepting or Assigning Himself a Role

In the subcategory of assigning themselves a role, or volunteering to do something, or accepting a role assigned to them (Code No. 13), the most effective superintendents showed a significantly higher frequency of behavior than the least effective superintendents. The Chi-square test indicated the difference with a probability of .02.

In addition to variation in frequency for the subcategory, there appeared to be some differences in the kinds of things the two groups assigned to themselves and for which they accepted responsibility. Group 1 seemed to give relatively more attention to roles in crucial or precedent-establishing situations; they were seen to become involved more often in affairs which were school-related but which were beyond the immediate program and operation of the school; and the roles which these men assumed or accepted appeared to be of a kind which would affect not only an immediate situation but also some subsequent situation.

The men in Group 4 seemed to become more involved in routine activity and day-to-day operation; there was more evidence of "repeat performances" in recurring situations; and there seemed to be doubt or question more often in the minds of the Group 4 men as
to how they would proceed once the role had been accepted.

Group 1:

After having talked with Mr. M, whom S was transferring to another building and another teaching assignment, S said to O that

he preferred to handle these delicate situations himself. He said if you send someone else to do the job, and they "bobble" it, it makes a worse mess for the man who finally has to do the job.

***

This phone call concerned the parking of an automobile by an elementary school principal. S said that he had notified the principal after the first call from this party (a representative of the police department). The representative of the police department stated that the situation apparently had not improved. S repeated the statement, "So, it has not improved."

S said: "I'll make it positive this time."

***

Upon reading about the camping program carried on in the 7th grade, O inquired of S concerning some of the details. S said that this year the board of education was paying for the rental of the camp. S said that the board had adopted a resolution that this was an educational project and the board authorized the clerk to pay for the camp rental expenditures. S said that

if the Auditor's office makes a "finding" against this expenditure, S will be very willing to take the issue before the public.

***
While talking with the band director about a newspaper item which appeared in the sports pages concerning three boys dropping out of football in order to play with the band, S told the band director that

he (S) would talk with the editor when the opportunity arose and would set him straight.

* * * * *

Group 4:

While talking with the school nurse about a child who had wax in her ear, and upon learning that the services of a specialist would be required to remove the wax, S talked by phone with a doctor's nurse, being unable to talk with the doctor. S explained the child's lack of money. He told the doctor's nurse to tell the doctor to make the charges, "as light as possible,

and I'll see that he gets the money."

* * * * *

S called a second board member to get approval for the police department to use the parking space at the football field for their carnival. He said:

"I'll see that they stay away from the fence, and that they clean up . . . ."

* * * * *

S took a phone call from a property owner whose garden adjoined a school playground. The property owner was complaining that the boys were trampling on his flowers.

S said that he would talk to the elementary school principal to see what he could do.

* * * * *
S said to the dealer in power saws: "The boys at the shop are pushing me." He indicated that they (the shop instructors) wanted the equipment if possible this week.

S offered to pick up the equipment at the factory and then to pay the dealer later.

* * * * *

Participation in Professional Meetings and Activities

The Group 1 superintendents appeared to participate more frequently in professional meetings and activities (Code No. 14) than did the Group 4 men. Although the frequencies were low, a variation at the .001 level of confidence was indicated. Much of this variation may be attributed to the opportunity afforded to Group 1 men to participate; although it was not confirmed, it appeared quite probable that similar opportunities were available less frequently to the Group 4 men. It was noted, however, that where there was participation, Group 1 seemed to be more active; Group 4 seemed to be more passive, to be "in attendance."

Group 1:

S stated that he had chaired a discussion group in the In-service Education Conference held at The Ohio State University in the Summer of 1954.

The observer remembered this from the Summer, 1954, since he (O) attended the same conference.

* * * * *
S dictated a letter to Mr. H, at the New Mexico State College. S's letter to Mr. H was merely a "thank you." S had received a very complimentary letter from Mr. H, concerning S's activity at a workshop in New Mexico recently.

S had served as a speaker and consultant.

* * * * *

Further conversation revealed that

S was serving as a member of a curriculum commission of the Ohio Education Association.

* * * * *

S participated in the School Survey Committee work in Columbus during the past year.

O has confirmed this through the printed reports.

* * * * *

S stated that

he was serving on the editorial board of Nation's Schools.

S stated that he does this as a part of his responsibilities to the profession.

* * * * *

Group 4:

S said he had attended a group meeting concerning board meetings at the AASA convention in Cleveland.

* * * * *
S told O that

he (S) had participated in the Metropolitan School Survey, and that he worked on some of the problems of the beginning teacher.

S said that the results of the study indicated that teachers felt that there was too much repetition in college courses.

* * * * *

While talking with the lady visitor,

S said he went to the AASA Convention in Cleveland and that he had attended three finance meetings.

* * * * *

**Suggesting to, or Telling, Someone What to Do**

The most frequent type of behavior observed in the critical area of determining roles was suggesting to, or telling, someone (except a secretary) what to do (Code No. 4). The difference in frequencies observed for the two groups was not statistically significant, although the probability of difference was determined to be between .10 and .05.

The act of the superintendent was usually intended to result in some further action on the part of the person to whom the suggestion or directive was given. These subsequent actions could be classified as follows:
<table>
<thead>
<tr>
<th>Activity</th>
<th>Group 1</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraising effectiveness</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Communicating</td>
<td>70</td>
<td>56</td>
<td>126</td>
</tr>
<tr>
<td>Co-ordinating functions</td>
<td>62</td>
<td>65</td>
<td>127</td>
</tr>
<tr>
<td>Determining roles</td>
<td>20</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>Fostering human relations</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Involving people</td>
<td>11</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Making or maintaining policy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Setting goals</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Using educational resources</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Working with leadership</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Telling the person his role</td>
<td>7</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>185</td>
<td>150</td>
<td>335</td>
</tr>
</tbody>
</table>

The principal difference between the two groups of men in this subcategory seemed to be in the ultimate effects which the suggested or directed actions might be expected to have upon the educational program. The most effective superintendents appeared to be looking at a broader scene than that envisaged by the least effective superintendents.

**Group 1:**

While talking with an elementary school principal concerning plans for a review of progress in the school staff this year,
and when the principal indicated that she would have difficulty in finding time for a careful review, S told the principal that he hoped she would try to make a rather careful review because he (S) had gotten a great deal of help from staff and group consultation.

****

While talking with the maintenance chief and the business manager about the purchase of equipment for next year,

S told the maintenance man that it would be up to the maintenance man to see that he stayed within the budget. S told the maintenance man that he didn't have to spend all of the money.

****

While discussing with O the fact that a mothers' club wanted to hire a particular teacher for a new kindergarten, S said he told the mothers' club that, as a matter of policy, they should forget about hiring the teacher. S said he made it very clear that the administration and the board of education select the professional staff.

S suggested to this group that, in order to avoid embarrassment to the group and to the teacher proposed by the group, the matter should be dropped by the mothers' group.

****

In discussing guidance activities of the high school, S said he talked with a senior boy last Saturday about what he was going to do next year. The boy indicated that he had not taken advantage of all the opportunities which the school had offered.

S asked the boy if he would be willing to give the benefit of his experience to some of the boys in the ninth grade.
Group 4:

While talking with a candidate for a teaching position in this city,

S said: "I make my teachers turn in a summary of the grades they give."

* * * * *

S indicated to the art teacher over the phone that maybe she could figure on a little more than $500.

S said: "Don't buy more than you have to, but buy what you need." S told the art teacher to make out a list of the amount of paper, the color, the number of crayons, and anything "you think you have to have."

* * * * *

While talking over the phone with the high school principal about a program for seniors coming up the next day or two,

S told the principal that he (the principal) could start school a little later Friday afternoon if the program in the morning ran too long.

* * * * *

While talking with a lady whose teaching certificate had expired,

S said that if the lady were planning to teach full-time, she should get into an extension course of one of the state universities.

* * * * *

Interpreting Roles, Including His Own

All of the superintendents were heard making general statements concerning the roles other persons were expected to play;
they also gave interpretations of their own roles as they saw them (Code No. 7). In many of these cases the observer did not see the behavior at the time it was described. Consequently, the observer might infer that what the superintendent said was either a statement of his expectations and his beliefs about the role, or it was a statement of the way the role was played in actual or specific situations.

Although no correlation was made between statement and practice, throughout the observation schedule the observer was left with the impression that the most effective superintendents more accurately described their own roles than did the least effective superintendents. The latter group seemed in practice to fall farther below their expectations for themselves and for others than did Group 1.

An analysis of the subcategory revealed the following content:

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 4</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>Interpreting the role of another person</td>
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<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Interpreting his own role</td>
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<td>39</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
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</table>

From these figures, it may be seen that the most effective men made proportionately more statements about the roles of others than did the least effective men. The latter group focused more verbal
attention upon their own roles. The Chi-square test, employing a contingency table, indicated the difference at the .05 level of confidence, in the behavior of interpreting the role of other persons.

**Group 1:**

In discussing the financing of school programs and mental health programs with Mr. W, of the Mental Health Association,

S said he thought that raising money was a problem of the legislature, not of the schools. The schools should show the need; they need not say how to raise the money.

** Group 1:**

In discussing the financing of school programs and mental health programs with Mr. W, of the Mental Health Association,

S said he thought that raising money was a problem of the legislature, not of the schools. The schools should show the need; they need not say how to raise the money.

In discussing the audio-visual program with the newly-appointed elementary school principal, S explained how the present system works.

S also explained the way in which an audio-visual aids resource person should be used.

In involving people of the community in school affairs, S indicated that

he drops subtle suggestions that may be picked up and carried on by someone else.

S indicated to O that

he (S) starts things moving by assigning responsibility and duties to the various staff members.
Group 4:

In discussing the method of requisitioning of supplies, S said he insists on a complete description of items on the requisitions. He also wants to know the company from which the supplies are to be ordered. He wants specifications and catalogue numbers if at all possible.

"If it isn't right, then it's the teacher's fault."

* * * * *

While talking with Mr. T, an elementary school principal, S said he wanted one PTA meeting saved for the bond issue.

S said that the PTA could select their speaker, but that the speaker should be someone who was familiar with the program.

While O could not be sure, it did appear to O that S would prefer to be this speaker. Indications were that S had not shared too much information outside the board of education and the architect, concerning the plans for the building.

* * * * *

In discussing the financial picture of this community, S stated that

he spends a great deal of time at election time securing approval of one or more of his three different levies outside the ten-mill limitation.

* * * * *

S said (to O) that many of the issues the Citizens Committee was suggesting for study were things that the layman was not prepared to discuss intelligently.

He said he felt that these things should be left to the professional educator who was prepared to deal with these issues.
The majority of the behaviors observed in the critical area of fostering human relations were found in two types of acts: (1) engaging in personal conversation, as contrasted with professional conversation, by chatting and joking (44); and (2) observing the common social amenities by greeting, expressing thanks and appreciation, offering best wishes, expressing regrets, and apologizing (41). When the Chi-square test was applied, statistically significant differences between the two groups of men were found in two types of acts.

Observing the Common Social Amenities

The Group 1 superintendents were found to greet, welcome, express thanks and appreciation, offer best wishes, beg pardon, express regrets, and apologize more often than the Group 4 superintendents (Code No. 5). The difference was significant at the .01 level of confidence.

8Table XXI.
## TABLE XXI

**FREQUENCY OF BEHAVIOR, BY SUBCATEGORIES, WITHIN THE CRITICAL AREA OF FOSTERING HUMAN RELATIONS**

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<td>25 10 11 3 13 62</td>
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</tbody>
</table>

*Subcategory number, pp. 134-135.
Group 1:

S took O to a junior high school building.

S walked to the faculty dining room, opened the door, stepped just inside the door and said "hello" to the teachers who were eating lunch.

****

S received and looked at a report from a teacher who had taken a group of students to Washington and New York over the Easter vacation period.

S dictated a note to the teacher expressing his appreciation for her work.

****

S told O that he confirms the receipt of signed teachers' contracts by a welcome letter.

****

S dictated to the secretary a letter addressed to Miss G, a teacher.

S apologized for not attending the culminating work on the courthouse unit.

****

Group 4:

In almost all (six or seven) cases, when he walked into a classroom,

S greeted the children by saying, "Good afternoon, children."
In practically all cases, this greeting was returned by the children saying, almost in unison, "Good afternoon, Mr. S."

* * * * *

S took a phone call concerning opposition to the bond issue. The caller was notifying S of such opposition.

S thanked the caller.

* * * * *

S apologized for making Miss F (the writing materials consultant and saleswoman) wait while he was talking with the two male visitors.

* * * * *

**Recognizing the Individuality and Dignity of Persons**

A difference was observed between the two groups of men in the number of times they recognized the individuality and dignity of persons with whom they worked or with whom they came in contact (Code No. 9). The difference was significant at the .01 level. It should be noted, however, that the frequencies were low.

The most effective superintendents gave more attention to correct and appropriate use of names, making the choice dependent on the type of situation and the person involved. They also made more effort to avoid offending, disappointing, or embarrassing persons. And they seemed to respect the confidence of persons more frequently.
Group 1:

In dictating a letter to the Superintendent of Schools of Atlantic City, S asked the secretary to check in a directory to see if the superintendent had a Ph. D. degree.

S wanted the secretary to use the proper address and salutation.

* * * * *

Upon arriving at the cafeteria and getting into the line, S told O that

he does not cut in on the line of students,

although teachers are permitted to cut in on alternate students.

* * * * *

S reported to O that

he does not permit the principals' reports to get into general circulation. He protects the principals when they make an off-the-record type of report.

* * * * *

After having arrived at the junior high school building, S told O that the conversation with Mr. M, a shop man who was being transferred to a senior high school and to another instructional area, might be a little delicate.

S suggested that Mr. M might prefer that the conversation be in private.

O volunteered to remain out of the conference and to go through the junior high school building while the conference was in progress.

* * * * *
General Observations

Giving recognition or credit to persons. The Group 1 men were observed giving recognition or credit to persons somewhat more frequently than the Group 4 men (Code No. 2). There also seemed to be some difference in the things for which this recognition was given. Group 1 more frequently gave credit for things directly related to the educational program and for performance of professional roles.

Group 1:

After arriving at the kindergarten building and finding the pupils and the teachers in the play yard, S talked with the teacher who was resigning her position.

S was highly complimentary to the teacher on the work which she had done. S said he regretted to see the teacher leave, but said he understood the circumstances.

(S was talking directly to the teacher.)

** * * * *

S dictated a note to the high school principal telling him that S would like to show the principal's article in School Activities to members of the board of education.

S complimented the principal on the article.

** * * * *

S dictated a letter to the secretary addressed to Miss G. S apologized for not attending the culminating work of the students on the courthouse unit.
S said, however, that he had heard many nice comments on the project.

Some of these comments had come from the parents.

* * * * *

Group 4:

While talking with the president of a mothers' club, in the secretary's office,

S complimented the lady on her cherry pie by asking if she would bake another one if he came over again.

* * * * *

S discussed the fourth grade "graduation" which is held in this city. S said he does not want it to get out of control. S said that "the kids like to collect things," so he (S) awards certificates to the pupils who have completed the fourth grade.

* * * * *

While talking with the mailman who had come into his office,

S complimented the mailman on his good radio voice.

(The mailman had been on a radio program yesterday for the citizens' committee.)

* * * * *

Talking about mutual acquaintances, and reminiscing. The Group 4 men did considerably more reminiscing than the Group 1 men (Code No. 8). When talking about mutual acquaintances or about personal well-being, the Group 1 men focused attention more fre-
quently on persons related to or closely associated with the other party in the conversation, or to the party himself.

Group 1:

Before entering an elementary school building,

S paused long enough to ask a teacher, who was on the playground with her children, how the teacher was feeling.

(The teacher had been ill recently.)

* * * * *

After the completion of the dictation of the letter to Mr. E, at the request of Mrs. B, he asked the secretary to type on Mrs. B's copy of the letter that

S was "happy to know that Mr. B's health had improved." S sent the regards of himself and his wife to Mrs. B.

* * * * *

Group 4:

While talking with the architect about plans for the new gym at the high school,

S and the architect reminisced on how the architect was originally hired by the board of education 10 or 15 years ago.

* * * * *

After S had asked the book salesman what he was selling, and after talking briefly about the general situation,

S continued some miscellaneous conversation about how S was hired at this particular school. He recalled old times and old timers. S talked about some teachers at H where S was superintendent many years ago.
(Some of these teachers were known to the book salesman.)

* * * * *

After Mr. T had left S's office, S went immediately to the secretary's office.

S asked a man standing at the counter, how his boy's teeth were coming. (The boy's teeth had been broken off.) S chatted with the man for a while about the boy.

* * * * *

Engaging in personal conversation. Aside from a somewhat higher frequency for Group 4, there seemed to be little difference between the two groups in the nature of their personal, or non-professional, conversation (Code No. 7).

Sincerity. Although it was not measured or documented, the most effective superintendents seemed to act with somewhat more sincerity in their fostering of human relations than did the least effective superintendents. They generally gave the impression of really meaning what they said; they seemed to act as they did because they wanted to, not because they thought they should. Facial expression, voice inflection and modulation, subtle gestures or body movements and choice of words seemed to contribute to their quality of behavior.

At times, there appeared to be an artificiality about the
behavior of the Group 4 men. Occasionally their acts seemed somewhat forced. Their behavior did not possess vitality and sparkle as frequently as did that of the Group 1 men.

Consistency. The most effective men seemed to be more consistent in their behavior in this critical area than did the least effective men. The same quality of behavior seemed present, whether they were talking or working with staff members or with persons outside the school.

In the cases of the least effective men, changes in quality of behavior were noted as the superintendents dealt with different persons. This group seemed to resemble more nearly Group 1 when they were dealing with persons outside the school. The greatest difference appeared as the two groups dealt with staff members and persons within the school.

VI. INVOLVING PEOPLE

As the superintendents were observed involving people in school and community affairs, three types of behavior seemed to distinguish between the two groups of men. These three kinds of activity not only constituted about 90 per cent of the units in this critical area, but each also indicated statistically significant
differences between the two groups of superintendents. 9

Encouraging and Securing Participation

The most effective superintendents made more frequent attempts than the least effective superintendents to secure school personnel and community members to participate in making suggestions, plans, and decisions (Code No. 1). The difference was significant at the .01 level.

These attempts on the part of the Group 1 men appeared not to be a shedding of responsibility by the superintendent, but rather they seemed to be deliberate attempts to secure a sharing of responsibility by other persons. On the other hand, there was some evidence that the Group 4 men attempted to shift responsibility from themselves to other persons as they engaged in this type of behavior.

Group 1:

In talking about his work in groups such as the PTA, and the "Pride of Progress" celebration,

S said that he likes to make members of the community a part of the team. S indicated that he uses these people to obtain support for what the school is trying to do.

He stated that if any problems do arise, these people know about them and are in a position to help solve the problems and answer criticisms.

9Table XXII.
## TABLE XXII

**FREQUENCY OF BEHAVIOR, BY SUBCATEGORIES, WITHIN THE CRITICAL AREA OF INVOLVING PEOPLE**

<table>
<thead>
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<th>Code</th>
<th>Definition</th>
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<th>Group 1</th>
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</table>

*Subcategory number, pp. 137-138.*
In discussing the staff requirements for next year,

S asked the high school principal what changes he would make in the industrial arts program if he could make such a change.

* * * * *

S indicated that yesterday, the board of education had sold school bonds at a good rate, and that they had received a little more money than they had planned on. As a result,

S invited the PTA's to consider how they would like to use the additional money in their new schools.

* * * * *

In order to prepare his second annual report, S said

he had asked teachers' groups to write a page on participation, goals, achievement, needs, etc., in the various instructional areas.

(From O's observation of S, O believes this is one of S's methods of involving teachers. It appeared to O that S was looking beyond the actual writing of this material; he seemed to feel that some closer analysis might be made, by teachers, of their own work, and that their instruction might thereby be improved.)

* * * * *

Group 4:

In discussing with the representative of the Department of Vocational Training, State Department of Education, the proposed training course for volunteer firemen,

S called in his secretary, the clerk-treasurer of the board of education, so that she would be in on it. S gave her the letter to read.

* * * * *
S had asked the architect to come at once to an elementary school to check on what S thought was a serious mistake in the plans for a new building. An elementary school principal had called this matter to S's attention. Upon his arrival, the architect looked at the brochures, the architectural drawings, and computed the floor area. He explained that the dimensions were listed correctly. This whole procedure consumed about 25 minutes. This incident, as well as the previous conversation of S, led O to infer that:

S has turned over to other persons, the architect, and parents groups, much of the planning for the new buildings.

(In O's opinion, S appeared to be not too familiar with some of the more important aspects of the proposed building program.)

* * * * *

In talking with the high school principal,

S said he had talked with parents who said they would not let their children drive, but the kids kept right on driving.

* * * * *

Consulting with Others on Specific Problems or Plans

A difference between the two groups of superintendents, significant at the .001 level, was noted in the frequency with which they met with and consulted other persons concerning action to be taken in problems situations (Code No. 3). Group 1 appeared to use other persons for this purpose considerably more often than did Group 4. The difference applied to use of both persons within the school as well as persons outside the school.
Group 1:

In talking about staff requirements for next year,

S asked the high school principal whether "we could adjust our program in sheet metal to meet a new demand in industry."

S was referring to certain industries in this city.

***

While talking with the chief custodian,

S discussed with the custodian the problems of laying floor tile and the problem of acoustic treatment at an elementary school building.

***

O noted quite a large number of sample textbooks which had been placed on a conference table in S's office. Closer examination indicated that S had distributed some of these samples to various teachers and had asked them, by note, for their recommendations, by choice number, for textbook adoption.

***

S stated that he was using a school health council to work on school health programs.

***

Group 4:

S asked the trustee which of the offers for typewriters he should take.

S told O that the trustee had informed him (S) that, since S was superintendent, he should make the decision. (The trustee was an officer of a special fund made available to the school for vocational education.)
In talking with the principal in the second elementary school building about the acoustical treatment in this building,

S asked the principal whether she thought any other areas ought to be treated.

S had described the areas which he had pointed out to the salesman.

* * * * *

S made a third phone call to another board member to get an OK for the E Club to use the football field for a big majorette show.

* * * * *

In talking with the newspaper reporter about tomorrow's bond issue and election,

S asked the reporter if anything could be done to clear up the opposition to the bond issue on account of the alleged high taxes.

S said the community didn't understand it.

* * * * *

While the condition was not adequately documented in this category, some evidence appeared in other categories that in the cases of the least effective superintendents, there seemed to be some resistance on the part of the superintendent to involving other people. When opportunities for involvement, particularly of persons outside the school, presented themselves, they were more frequently disregarded or opposed by the Group 4 men than by the Group 1 men.
It appeared that the Group 4 superintendents may have lacked confidence in these persons or they may have felt that outside help would be inappropriate. It might also be surmised that the factors of status and security played some part in the behavior of some of the Group 4 men.

Meeting with Community Groups

In the subcategory of meeting with, and participating in the discussion of, community groups in support of the school-community relationship (Code No. 4), the frequency of behavior of the most effective superintendents differed significantly from that of the least effective superintendents, the probability of true difference being at the .01 level of confidence.

Group 1:

In order to secure passage of bond issues and additional operating levies, S reported that

he met with various PTA organizations

and solicited their support and activity in behalf of these school taxes. S reported to O that a favorable vote had been recorded at the last election.

*** *** ***

S related to the band director how

S had met with a group of citizens
and had talked informally with them about some of the blocks which existed preventing educational progress.

***

S told O that

he (S) had spent an hour and a half this morning talking with members of the ministerial association.

S said that there had been some question raised as to the extent of extra-curricular activities and "over-participation" by the students in such activities.

***

S stated that he had participated in a panel discussion on last Wednesday night.

This panel was sponsored by a community group.

***

Group 4:

In going through his mail, S read a letter from a community organization whose invitation to a dinner

S had accepted. S attended the dinner.

(This attendance was confirmed at a subsequent observation period.)

***

S said (to O) that he belongs to seven civic clubs.

***
General Observations

In addition to differences which could be determined by testing frequencies and which might be detected in the anecdotal de-
scriptions, the observer was left with the impression as a result
of the entire series of observations that the most effective superin-
tendents were more adept in working through other persons than
were the least effective superintendents. This impression was
obtained in part from conversation between the observer and other
persons with whom the superintendents worked. The involvement
secured by the Group 1 men appeared to be more contagious than
that of the Group 4 men. Group 1 seemed to set a more effective
pattern for others.

Another impression which remained with the observer was
that the involvement secured by the most effective superintendents
appeared to produce more action on the part of those involved.
Community members, as well as persons within the school, seemed
to take hold more readily and to carry through to the desired ob-
jective more effectively. Results were more apparent in the schools
and communities of the most effective superintendents.

Finally, the action and behavior of the men in Group 1 seemed
to command considerably more respect of co-workers and community
members than did that of the men in Group 4. It should be noted, however, that one member of the least effective group seemed to enjoy staff and community respect superior to the other members of his group and approaching that enjoyed by Group 1. The presence of respect probably had a direct bearing upon the involvement potential of the superintendents observed.

VII. MAKING AND MAINTAINING POLICY

In the critical area of making and maintaining policy, the following kinds of behavior were seen most frequently: (1) explaining existing policies, or citing principles which were to guide actions (24); (2) deciding on or taking action in accord with previously accepted principles, and explaining reasons for adopting or following a prescribed course of action (24); (3) calling attention to conditions necessary for desired action, and citing what could or could not be done if action were to be in accord with acceptable procedure (17); and (4) setting or establishing precedent in a first-occurring situation, or deviating from established policies in emergencies (12). In none of the subcategories of this critical area were statistically significant differences in frequencies found to differentiate between

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10Table XXIII.
TABLE XXIII

FREQUENCY OF BEHAVIOR, BY SUBCATEGORIES, WITHIN THE CRITICAL AREA
OF MAKING AND MAINTAINING POLICY

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*Subcategory number, pp. 140-141.
the two groups of superintendents.

Citing Policies and Principles Guiding Action

As the superintendents cited or explained existing policies or principles which were to be used as guides to action (Code No. 1), it was noted that the most effective men had written or were using written statements of policy more often than the least effective men. As a result, the co-workers of the Group 1 men seemed less dependent upon the superintendent as they made decisions in routine matters; the superintendents of Group 1 were called upon less frequently to interpret policy in routine actions.

Group 1:

S showed O a copy of Bulletin Number 1 which "serves as a handbook of school policy" and which he (S) had written or compiled.

The bulletin is ninety-five pages long.

* * * * *

S indicated to O indirectly that the total of the bills paid by the business manager and then submitted to the board for approval of payment, ought not regularly far exceed those expenditures which were approved by the board of education prior to the actual expenditure.

S indicated that he was going to have to remind the business manager of this principle of operation, because the business manager was paying too many bills prior to board approval. S seemed to feel that the board might question this practice if it went too far.
In this pamphlet S has included several pages of discussion concerning the principles of budget-making.

(The pamphlet was a mimeographed twelve-page publication dealing with "The Educational Program in Relation to the Budget."

* * * * *

Group 4:

While talking with a teacher,

S explained the policy of sending teachers to conventions.

This teacher wanted to go to C to have some musical instruments repaired and to purchase some other instruments. She was seeking travel expenses.

* * * * *

While discussing with the principal and the group of parents the proposal for the entertainment of graduates following the commencement ceremony,

S told the high school principal that the school authority over the child ends that night right after the commencement exercise.

* * * * *

In talking with the ninth graders making subject selections for next year,

S explained to them that, in case of a failure this year, they could not add a fifth subject for next year to make up their credit.

* * * * *
Policy in First-Occurring or Crisis Situations

The most effective superintendents seemed to be more willing to set precedent and to revise policy when the situation required such action (Code No. 10). This difference between the two groups did not appear in the frequencies, but rather in the nature or significance of the problem, and in the manner in which the superintendent faced the problem. The Group 1 men gave more attention to the problem analysis and, once the decision was reached, they seemed to be more confident in their stand.

Group 1:

On the way back to S's office from the kindergarten building, S talked about the method he proposed to use in integrating colored teachers into this system.

* * * * *

At about the time a decision needed to be made concerning the placing of the bond issue before the voters, a member of S's advisory council, who was an employee of a large manufacturing company in the city, stated that he felt that this was not the appropriate time to propose a bond issue, since a hospital building-fund-raising campaign was under way. The president of the firm was chairman of that fund-raising campaign. The advisory council member had been in all of the previous planning for the campaign, and had apparently approved the submission of the issue to the voters in the near future. However, now he was evidencing some disapproval. In spite of this disapproval,
S recommended to the board of education that the bond issue be submitted at the next election, even though the hospital building campaign was in progress.

S stated to O that the bond issue passed, but that the hospital building fund had not reached its goal.

* * * *

When O questioned S about the outcome of the conference with the mother whose child has been in difficulty in a number of schools,

S said that he would not readmit the boy.

(The boy had been expelled from several schools, after having previously been expelled from S's school. The boy's mother was now seeking to have the boy readmitted to S's school.)

* * * *

**General Observations**

**Obtaining adherence to policy.** The most effective superintendents seemed to use a somewhat different approach at times as they sought staff adherence to policy. They gave more explanation and spent more time analyzing situations with other persons than did the least effective superintendents. The Group 1 men seemed to seek voluntary adherence to policy on the basis of reason, while the Group 4 men, in a proportionately larger number of instances, left little to the judgment of others.
Group 1:

Prior to O's arrival for this observation, an elementary school principal had asked S whether it would be possible to take a group of slow-learning pupils on a trip to the C zoo. S told O that

S asked the principal about the school policy in connection with such trips. S asked the principal if a trip to the zoo would fit the criteria for such trips.

S told O that this principal had been working on a committee to set up criteria for school trips. In reply to S's question, the principal felt that the proposed trip would not meet the criteria.

***

S said he had not told the teachers that they could not have mothers' clubs. But S indicated that whenever difficulties arose,

he pointed out these difficulties to the teacher, hoping that the teacher might give in to the policy adopted by a majority of kindergarten teachers in this system, that of relinquishing mothers' clubs in the kindergarten.

***

In discussing one of the problems of placing slow-learning students with regular class groups,

S told the guidance director that within limits, a general policy must be established and must prevail, if the teachers are to understand and be satisfied with the guidance director's placement of children in classes.

***
Since his coming to this position, S reported to O that he has worked with the board of education in revising and rewriting board rules and regulations.

* * * * *

Group 4:

After the representatives of the telephone company had left, S talked with O about some of the different kinds of materials which schools are asked to accept and distribute. S said he will not tolerate advertising materials being distributed in the schools even though they contained educational items.

* * * * *

In examining a note from a teacher concerning expenses to a professional meeting, S told his secretary to notify the teacher that board policy prevents payment of a teacher's way to clinics and so forth. "First, we don't have the money, and second, it's against policy."

* * * * *

While discussing with the clerk-treasurer a rumor that the board was proposing that the PTA entertain the seniors after commencement,

S said the board could not take any action through a single board member. He said that action would have to be taken "up here" (meaning at a board meeting in S's office.)

(S appeared to be somewhat disturbed that the board and the PTA should be collaborating on this kind of activity. O believed S felt the board was encroaching on S's sphere of activity.)

* * * * *
The data in making and maintaining policy. The data in the category of making and maintaining policy did not provide as many clear-cut incidents as the observer had been led to expect. This may be due to two factors. First, it appeared that superintendents did not actually enact top-level policy as often as they are generally so credited. They did, however, make recommendations to be considered by policy-making groups; they wielded influence over these groups. In this kind of behavior, the most effective men seemed to initiate such recommendations and action more often than the least effective men. The least effective men seemed more willing to follow, to let the board tell them what to do. In fact, they seemed to seek this kind of security.

A second reason that the data classified in this category may not have included all of this kind of behavior observed, was that some incidents or units related to policy-making were classified in other categories, e.g., communicating, and co-ordinating functions. As superintendents prepared communications and agenda for board meetings or other meetings of policy-making groups, recommendations for action were offered. Here again, the most effective men acted more frequently than the least effective men. An illustration of this condition may be cited by presenting the content of a unit of
behavior classified in the category of co-ordinating functions, under preparation of agenda:

S showed O a copy of the board agenda which

S had prepared for next week's meeting.

The agenda included the following items: additional training requirements to stay on salary schedule; changes in the entering dates for kindergarten; approval of seniors for graduation; permission to enter an agreement for a driver-training car; sending custodians to the custodians' school at OSU; establishing a class for slow-learning students; employment of several new teachers; the submitting of a three-mill operating levy; advertising and accepting bids on furniture and blacktopping; prices on electrical work and floor-tile work to be done this summer; the clerk-treasurer's statement, including bills and balances; the list of professional meetings attended by all staff members this year; the written report of a teacher attending a math conference; a list of books recently acquired by the library.

Much of the co-ordinating of administrative functions seemed related to, or dependent upon, maintaining and implementing policy.

Though no reference was made by the superintendent to the policy involved, a relationship could often be inferred as the superintendent acted in the category of co-ordinating functions. The same condition probably existed in relation to some of the other categories as well.
VIII. SETTING GOALS

Five kinds of goal-setting behavior were seen most frequently: (1) identifying or describing things which he, the superintendent, wanted or hoped to do, such things being somewhat routine or short-range in nature and involving or affecting other persons (25); (2) identifying or describing things which he wanted to do or wanted to have done regarding buildings, equipment, materials and finance (20); (3) identifying or describing relationships, organization, arrangements, or role performance which he wanted or was seeking (20); (4) identifying things which he did not want to do, things which conflicted with his goals or objectives (12); and (5) expressing a need for, an interest in, or hopes for, some future action on the part of the board of education or some political subdivision; or pointing out conditions he wanted to prevail (12). In none of the subcategories of this critical area were any statistically significant differences in frequencies observed between the two groups of superintendents.

An examination of the behaviors within each subcategory failed to reveal any marked differences between the two groups of superin-

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11 Table XXIV.
TABLE XXIV

FREQUENCY OF BEHAVIOR, BY SUBCATEGORIES, WITHIN THE CRITICAL AREA OF SETTING GOALS

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*Subcategory number and item letter of the subcategory, pp. 143-144.
tendents. However, some general differences were noted when the entire category was examined from points of view not limited by subcategory lines.

**Action-Related Goals**

Generally, the most effective superintendents seemed to specify goals more closely related to action than was the case with the least effective men. Frequently, action was already under way; something tangible and specific had already been done or was soon to be done. The goals themselves seemed to be more specific. And the Group 1 men seemed to direct their statements to persons who were in a position to help achieve the goal more frequently than did the Group 4 men.

The least effective superintendents spoke more often about goals which appeared to be somewhat removed from the action of the superintendent. This group was observed to make goal statements and then to let the matter drop with no indication that anything was being considered as a means of achieving the goal. Group 4 seemed to cite goals in terms of generalities, with an element of vagueness, somewhat more often than did Group 1.
Group 1:

In talking with the newly-appointed elementary school principal,

S said he wanted to see the pay-as-you-go plan for new buildings, put into effect not later than November, 1956.

S had laid some foundations for this plan in a recent publication. It was being considered by the board of education.

***

S said that

he was trying to keep the city from putting up a tax levy this fall

since the school was already submitting a levy.

***

While talking by phone with the company representative in A about the purchase of a dishwasher,

S said that he thought maybe they could swing it this year. He wanted it installed this summer.

***

While talking with the assistant superintendent about constructing a storage area for the orchestra shell, built for the new school-civic auditorium, and on hearing that the assistant superintendent saw a difficulty in erecting the building on the present storage site (now out-of-doors), and that the shell would have to be moved while the building process was underway,

S said, "We're thinking about 20 years."
(O took this statement of S to mean that the problem of temporary storage was quite insignificant.)

** * * * *

** Group 4: **

In discussing last-minute attempts to pass the bond issue, S told O that

he wished he (S) could "take the air himself" to plug the bond issue.

S said they had fifteen minutes of radio time coming this day. From previous remarks, S indicated that he did not feel that he was in a position to "carry the ball" since such action might be misinterpreted by the voters.

** * * * *

S asked O how long most of the teachers had been teaching at O's high school. S indicated that he had an old teacher

whom he would like to retire,

but he said he didn't have "the guts" to retire the teacher. She was seventy-two years old.

** * * * *

S said

he would like to take some of his board members to A for a meeting on Senate Bill 321.

However, S gave no indication that he was planning to do this. He gave some indication that he doubted whether any board members would go.

** * * * *

**
In discussing programs being promoted by outside groups, S said he thought that some of these things were rather far-fetched. He said

he hated to bother with anything that didn't help boys and girls.

* * * * *

Goals Related to Role Performance and Organization

As they identified goals related to role performance, the Group 1 men seemed to be concerned with aspects of role which were somewhat different from those of Group 4. The objective seemed to have more significance in terms of long-range accomplishment in the educational program.

Group 1:

S explained to O the responsibilities of Mr. B. S stated that Mr. B had gradually worked into his present position, beginning on a part-time basis, centering largely on audio-visual aids.

S stated that he hoped that Mr. B's work would become more extensive in the field of the direction of instruction.

* * * * *

In discussing guidance at the high school level, S said

he wanted to get closer to the students by working through peers.

S was proposing that senior boys and graduates share
some of their thinking and experiences with the younger boys.

* * * * *

In discussing with the elementary school principal the problem of redistricting because of new schools, S said that

he tries to get the parents to think of the child rather than of the school attended.

* * * * *

Group 4:

While discussing the maintenance of discipline with a teaching candidate,

S said he wants "law and order in the rooms."

* * * * *

S told the teaching candidate from OSU that this school uses the Every-Pupil Tests, the Senior Scholarship Tests, the District-State Scholarship Tests, and a number of achievement and intelligence tests. Concerning the scholarship tests,

S said: "We want to continue to try to push our scores up."

* * * * *

While talking with a candidate for a teaching position in this city, S said: "I make my teachers turn in a summary of the grades they give.

I don't want them to grade too liberally; but I don't want grades used for discipline."

* * * * *
There also seemed to be some differences in the goals for organization as expressed by the two groups. Here again, the range and scope of goals identified by the most effective superintendents appeared to be of more consequence for the total educational program. The Group 1 men seemed to be concerned with a different level of goals.

Group 1:

S told the high school principal that

he wanted to get the kindergarten back into the school system.

From previous discussion, O learned that the kindergarten was not entirely free. Parents were required to pay $1.00 per week tuition for their children to attend kindergarten.

* * * * *

While talking with an applicant for a teaching position, S said

he has been trying to promote longer blocks of time for classroom work.

* * * * *

In explaining the status of the "clerk of the Board of Education,"

S stated that the delay in naming the person the official clerk of the Board of Education was related to his desire to maintain administrative authority over the person who handles the work of the clerk.

* * * * *
In talking with the high school principal about staff requirements for next year, S asked the principal about the amount of non-teaching assignment time on all of the principal's staff. S said he wanted to make a comparison in case he begins to think of plans for two 1500-pupil high schools.

* * * * *

Group 4:

S related to the board member how he had heard that some schools in other places were taking the whole first period for the milk program.

S said he did not want that to happen here.

* * * * *

In discussing the self-initiated citizens group with which S has found it necessary to work, S said this group represented only one PTA organization. S said that the board president thinks the group is doing good work. S said he couldn't see what they have done.

S said he wanted all groups of citizens and parents represented.

(From previous remarks of S, it appeared that S was not receptive to the ideas and work of this committee. No evidence was available that he had done anything, or planned to do anything, to make the committee more representative.)

* * * * *

From S's conversation about the recreation problem for this summer, O inferred that

S wanted to wash his hands of the whole program as soon as he could.

(S was trying to turn the entire program over to the city administration.)
Identifying Realistic Goals

The Group 1 superintendents gave less evidence of wishful thinking in goal setting than did the Group 4 superintendents. Their long-range goals, especially, were considerably more realistic than those of the Group 4 men. It appeared that they could adjust goals to the situation and its possibilities more readily than could the least effective men.

Group 1:

In discussing the plans for the dedication,

S said he hoped the city would soon extend a street in the vicinity of the school grounds.

* * * * *

While talking with the head custodian and two representatives of a paving contractor about some black-topping at one of the school buildings,

S said he wanted to keep the bike riders out of the mud.

(The black-topping would achieve this goal.)

* * * * *

While at the new senior high school, now nearing completion, S pointed to a number of dwellings east of the site.

S remarked that the board of education should attempt to buy these properties when they become available at a reasonable price.

* * * * *
While describing to O the camping project used for the 7th graders, S pointed out on a map the location of the camp.

S said someday he hopes that the board of education may own a camp for the school children.

(The board is presently renting a camp for this purpose.)

***

Group 4:

In discussing with O the problem of supplying personnel,

S said, "If you just had the money . . . ."

(S seemed to be engaging in wishful thinking, since he had previously stated numerous times that he did not have enough money to attract good teachers.)

***

In interviewing the candidate from OSU, and discussing class size,

S said: "We don't like to have a class over thirty." S explained to the candidate, by giving illustrations, the size of present classes in the high school.

(From previous observations, O knew that there were classes over thirty.)

***

While discussing his efforts to obtain federal aid for the building program,

S said if he could get some government aid, "I think I could swing my program." He said that if he could get as much as $100,000, it would cover his program.

(But S had indicated some doubts that he could obtain this much aid.)
IX. USING THE EDUCATIONAL RESOURCES OF THE COMMUNITY

Over half of the units of behavior observed and classified as using the educational resources of the community were found in two subcategories: (1) reading and using professional books, magazines, educational publications, and printed reports from outside the school which could be helpful in strengthening the school program (18); and (2) consulting or obtaining the services of government agencies, university offices or personnel, or consultants, in connection with problem situations or for help in the achievement of educational objectives (17). In none of the subcategories were any statistically significant differences between the two groups of superintendents found.

Although distinct differences between the two groups of superintendents could not be identified in this category, two characteristics were somewhat more common to the most effective men.

\[12\] Table XXV.
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*Subcategory number, pp. 146-147.
Reading Professional Publications

The Group 1 men appeared to read professional and educational publications more often than did the Group 4 men (Code No. 2). Further, the variety of materials read seemed to be greater in the cases of the Group 1 men. It should be noted that some of the data appearing in the category of communicating, under Code No. 7 (seeking or receiving information through written or printed materials), could also have been included in the present category. Consequently, the observer's impression at this point was not based solely upon the data of the present category. This category appeared not to have given a complete documentation of the difference in reading behaviors of the two groups of men. However, some evidence may be obtained from the following illustrations.

Group 1:

S stated that

he reads about fifteen magazines. He reads the education section of Time and Newsweek regularly.

S showed O copies of several of the magazines which he reads.

* * * * *

O observed a copy of the Economic Report of the President on S's desk. O inferred that

S had looked at, or read from, this publication recently.
(It may have been from this report that S had gotten some ideas about the problem of inflation as it affected teachers' salaries.)

* * * * *

S read a copy of the most recent issue of the OEA Legislative Report.

* * * * *

While opening his mail,

S read "The Educator's Dispatch." S told O, after reading briefly, that he would read it more fully later on.

* * * * *

In going through his briefcase containing accumulated materials, S came upon an NEA research publication.

S stated that he keeps up on NEA research studies.

* * * * *

Group 4:

S stated that:

he reads and uses the financial analysis of school costs and expenditures prepared by the Bureau of Educational Research.

* * * * *

O inferred that

S has looked at an OEA publication, "Basic Financial Data." S had underscored some data pertaining to his school district as well as data from "comparable situations."

* * * * *
While O was describing some of the work of the SCDS to S, O made reference to a publication of the OEA Elementary Principals Association, "By Their Bootstraps." S showed O a copy of this publication. The copy had been lying on top of S's desk. O inferred that

S had read part or all of this publication.

** ** **

It also appeared to the observer that the variety of materials read by the most effective superintendents resulted in a greater variety of educational subjects being studied by these men. Whereas the least effective men seemed to concentrate more on financial and legislative matters, the most effective men more often looked at educational programs, instructional improvement, administrative practices, and research.

**Consulting Outside Persons and Agencies**

The most effective superintendents appeared to consult with outside persons and agencies somewhat more often than did the least effective superintendents. Further, the purpose of the consultation seemed to be of greater significance in terms of long-range objectives.

Some overlap was seen at this point in the present category with those of involving people, and co-ordinating. As a result, some data which might help to confirm the point under discussion have not
appeared in this category. However, the following illustrations will substantiate the behavior characteristic to some degree.

**Group 1:**

In describing the administrative organization of the school system of this city S stated that:

He used the help of Dr. C and his class at The Ohio State University several summers ago, in setting up the administrative organization of this school system.

* * * * *

While talking with the faculty group about a proposed salary schedule developed by the group, S said

he had contacted an organization requesting an examination as to how money might be saved in this school system.

* * * * *

S dictated to the secretary a letter to Dr. L, of OSU,

to ask him to come to this city for an evaluation for work done by math teachers.

S told O that these teachers had asked that Dr. L, who had helped set up the program, be invited to come and help them evaluate the work.

* * * * *

S called attention to the acoustical treatment, a curtain permitting reduction of the size of the auditorium without affecting the sound, and certain other characteristics of the auditorium. S said
they had secured the services of a nationally famous firm in Boston to design the auditorium.

*** ***

In describing the planning for the new high school, S stated that

he asked the architects to go to the Ohio State University campus to inspect the new Ohio Union to get some up-to-date ideas for the new building in this city.

*** ***

S said that

he has been meeting with representatives of the automobile club in an attempt to work out something in the way of an auto-mechanics program in the high school.

*** ***

S told O about the services of an outstanding lady doctor which had been obtained by the schools and which he was continuing to use

for the purpose of locating sight deficiencies. S pointed out that this person had given much of her time, free of charge, as a part of the regular health program in this school system.

*** ***

Group 4:

S asked O about the legal implications of sick leave for teachers.

S said he had called the city solicitor for an opinion.

*** ***
S reported that:

He asked Dr. C to come to this city for the purpose of examining certain school problems.

* * * * *

In talking with the "Towel-Saver" salesmen about the new policy of having Mr. J handle more of the purchasing of supplies,

S said that this was an idea that he had gotten at C University when he was there recently.

* * * * *

While discussing some of the unsatisfactory conditions in planning of some remodeling and in a new building recently constructed,

S said he had gone to KSU to get consultants to make recommendations to remedy a lighting situation in the high school music department.

* * * * *

X. WORKING WITH COMMUNITY LEADERSHIP TO PROMOTE EDUCATIONAL IMPROVEMENT

An examination of the critical area of working with community leadership to promote educational improvement revealed two principal kinds of behavior: (1) talking or working with officials on matters of school-community interest (10); and (2) contacting and getting opinion leaders together to discuss school-community plans and
action (7). Not only did the most effective superintendents exhibit more behaviors in these two subcategories (Code Nos. 4 and 6 respectively), but they also provided the only data in the latter subcategory.

Because of the low frequency of behavior observed in the entire category, a further analysis of subcategories as defined seemed impractical. Examination from points of view not limited by subcategory lines, however, did provide some evidence of qualitative differences between the two groups of men.

Initiating Contacts with Community Leadership

Both groups of superintendents appeared to recognize the existence of a leadership or power structure in their communities. Both groups identified persons of influence. But the most effective men seemed to be able to identify more readily those community leaders who could serve educational purposes more effectively. The Group 1 men also seemed to have analyzed more fully the degrees of influence wielded by opposition leaders. In planning tactical moves, they more frequently anticipated and estimated the importance of the opposition. And, as far as could be observed, they seemed to plan

---

13 Table XXVI.
<table>
<thead>
<tr>
<th>Code</th>
<th>Definition</th>
<th>Most Effective Superintendents</th>
<th>Least Effective Superintendents</th>
<th>Sample Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Group 1 Total</td>
<td>Group 4 Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1 S-4 S-5 S-7 S-9</td>
<td>S-2 S-3 S-6 S-8 S-10</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1 0 0 1 0 2</td>
<td>0 0 0 0 0</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>0 0 0 0 0 0</td>
<td>0 0 0 0 0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>1 0 0 0 0 1</td>
<td>0 0 0 0 0</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>1 0 1 5 0 7</td>
<td>0 1 0 1 1 3</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>2 0 0 0 0 2</td>
<td>0 0 0 1 0 1</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>1 3 0 3 0 7</td>
<td>0 0 0 0 0</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>0 0 0 0 1 1</td>
<td>0 0 0 0 0</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>0 0 0 0 0 0</td>
<td>1 0 0 0 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 6 3 1 9 1 20</td>
<td>Total 1 1 0 2 1 5</td>
<td>25</td>
</tr>
</tbody>
</table>

*Subcategory number, pp. 148-149.
accordingly.

The most effective superintendents seemed to initiate contacts with community leaders more frequently than did the least effective superintendents. They took the necessary steps to get people together to work toward school-community improvement and to use their influence on school-centered activities.

**Group 1:**

In discussing the use of community persons in advisory capacities,

S named several people, and indirectly pointed out the importance and the strength of their positions in the community.

* * * * *

In involving people of the community in school affairs, S indicated that

he helped to select the important people to be involved in the community celebration.

* * * * *

S told O that

he carries on a close relationship with the legislature.

* * * * *

In working out plans for a four-week celebration and dedication of the new auditorium, S reported that

he had started by inviting "leading" persons in the community to a luncheon to discuss plans.
S indicated that this group included not only important people but also representatives of important organizations.

* * * * *

In discussing the dedication program, S said:

"We have contacted the Governor to try to get him here."

* * * * *

In discussing some of the details of the dedication,

S said that he had talked with the city administration about the new recreational site and its improvement.

* * * * *

Securing Action on the Part of Community Leaders

In addition to initiating more contacts, the Group 1 men appeared to secure more active participation from community leaders than did the Group 4 men. More things happened as a result of the contacts. The most effective men appeared to do more "quarterbacking" for the team. And while they appeared to be in control of the situation, they generally did not attempt to dominate. They could get results by letting other persons "carry the ball." Although a limited amount of such behavior was observed through one man in Group 4, the quality could not be ascribed to that group as a whole.
Group 1:

In discussing the long-range planning which had taken place in behalf of the new high school, S stated that

he had been working with the city in planning a new river-level-control, a shore drive, site improvement, street abandonment, and new streets, in the vicinity of the new school.

***

Because of S's interest in the "Pride of Progress Month," and from what S had said previously, O inferred that

S had something to do with the students delivering invitations to the congressmen and senators. It was quite probable that he suggested the idea.

One congressman and one senator came to this community for the opening of the new civic auditorium.

***

S introduced O to the city editor of the newspaper, the public relations representative of the B-L-H Company, the chairman of the Civic Improvement Committee, a representative of the Chamber of Commerce, a representative of the Better Business Bureau, and one or two other persons,

whom S had called to a conference to plan the dedication of the new high school.

***

S stated that

he uses advisory groups in the community to work with school people. He meets with a school advisory council.

(He named the community members of this council for O.)

These people were recognized as community leaders.
Group 4:

S told O that

he had talked with the mayor about re-routing trucks away from this elementary school building and from the high school building.

S said, however, that nothing had been done so far. However, he did indicate that some plans were being considered for building a by-pass for trucks outside the city.

* * * * *

S said that

he had talked with police about the driving and parking problem around the high school,

but the police had informed him that if the students had a driver's license, they could park anywhere.

* * * * *

General Observations

Although it was not specifically classified in this category, there was some evidence in the data that the most effective men took stands to protect the interests of the school against what they considered to be undesirable pressures from outside persons or groups. This kind of action was noted in a number of cases: (1) resistance of efforts to introduce into the school an independently-sponsored athletic program which the superintendent saw as interfering with the school's health and physical education program; (2) declining to
nominate a candidate for an athletic award in a competition sponsored by a community agency, because of anticipated strain in relationships with other schools and because of certain other factors; (3) deciding to push ahead for a bond issue at the following election in face of opposition of the chairman of a hospital-fund campaign; and (4) resisting the attempts of a local minister to have certain books removed from the school libraries.

In the face of outside pressures, the least effective superintendents, with one exception, appeared to yield more readily. While they might express personal objections, they seemed more likely to "go along, because there isn't much you can do."

Finally, it should be noted that it is possible that the observer did not see the same proportion of the superintendents' total behavior in this category as probably prevailed in the observation of the other categories. The observer was of the opinion that a somewhat larger part of the superintendent's action in this category took place outside the office, away from the school, and outside usual office hours, than was the case with the other categories of behavior. However, the data seemed to contain enough evidence to substantiate the general patterns of behavior identified.
XI. SUMMARY

Behavioral differences, which may be described as qualitative, were observed between the two groups of superintendents. These differences came to light upon examination of the kinds of things done within each critical area, and through comparison of the manner in which the two groups of men performed as they did similar things.

In order to facilitate the analysis, each unit of behavior in each critical area was classified in a subcategory for that critical area. The subcategories were composed of similar kinds of acts and acts performed in similar ways. Later, some of the data were regrouped without regard for existing subcategory boundaries. This made possible detection of some qualitative differences which did not appear in the definitions.

About 43 per cent (thirty) of the differences between the two groups of men were confirmed by the results of the application of the Chi-square test to the frequencies of the behaviors in the subcategories. The remaining 57 per cent (thirty-nine) of the differences seemed apparent, although statistical significance of difference could not be shown. In most of the latter cases of difference, the Chi-square test was not applied because of the regrouping of the data; the
groupings of the data in these cases did not necessarily coincide with the existing definitions of the subcategories; the data seemed to require groupings not clearly provided for in the definitions.

The differences in behavior of the two groups of superintendents have been summarized in table form.\textsuperscript{14} Table XXVII presents the kinds of behaviors, or the manner of acting, in which the differences were observed. The group of superintendents for which each kind of behavior was more frequent or more characteristic is identified. The subcategories in which the differences were statistically verified, and the level of confidence of that variation, are indicated.

\textsuperscript{14}Table XXVII.
TABLE XXVII

SUMMARY OF THE BEHAVIORAL DIFFERENCES BETWEEN THE MOST EFFECTIVE SUPERINTENDENTS AND THE LEAST EFFECTIVE SUPERINTENDENTS, AS DETERMINED BY AN ANALYSIS OF THE KINDS OF BEHAVIOR WITHIN EACH CRITICAL AREA

<table>
<thead>
<tr>
<th>Behaviors in Which Differences between the Two Groups of Superintendents Were Observed</th>
<th>Behavior More Frequent in the Case of:</th>
<th>Difference Verified Statistically</th>
<th>Level of Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1</td>
<td>Group 4</td>
<td></td>
</tr>
<tr>
<td>In the critical area of appraising effectiveness:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeking opinions of others in appraisal.</td>
<td>X</td>
<td>. . .</td>
<td>X</td>
</tr>
<tr>
<td>Indicating desirability or importance of some aspect of the school program.</td>
<td>X</td>
<td>. . .</td>
<td>X</td>
</tr>
<tr>
<td>Applying the process of appraisal logically and consistently.</td>
<td>X</td>
<td>. . .</td>
<td>X</td>
</tr>
<tr>
<td>Involving other persons related to the appraisal and its results.</td>
<td>X</td>
<td>. . .</td>
<td>X</td>
</tr>
<tr>
<td>Appraising things of greater importance to long-range objectives.</td>
<td>X</td>
<td>. . .</td>
<td>X</td>
</tr>
<tr>
<td>Relating appraisal more consistently to planning for future action.</td>
<td>X</td>
<td>. . .</td>
<td>X</td>
</tr>
<tr>
<td>Displaying a more optimistic and positive outlook toward the results of appraisals.</td>
<td>X</td>
<td>. . .</td>
<td>X</td>
</tr>
<tr>
<td>In the critical area of communicating:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving or sharing information by a greater variety of methods.</td>
<td>X</td>
<td>. . .</td>
<td>X</td>
</tr>
<tr>
<td>Behaviors in Which Differences between the Two Groups of Superintendents Were Observed</td>
<td>Behavior More Frequent in the Case of:</td>
<td>Difference Verified Statistically</td>
<td>Level of Confidence</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Spending proportionately more time talking.</td>
<td>X</td>
<td>X</td>
<td>.01</td>
</tr>
<tr>
<td>Talking about things related to important objectives or action.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Using written materials more often in giving or sharing information.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Seeking or receiving information.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Using written or printed materials as sources of information.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Questioning teaching candidates orally.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Retaining information for future use.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Keeping records and summaries.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Making notes and reminders to himself.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Using files, bulletin boards, notebooks, folders, etc.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Verifying communication by seeking authenticity, and checking on dispatch and reception of communication.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Using a greater variety of the tools of communication, and obtaining broader coverage.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Handling smoothly the flow and routing of incoming communication.</td>
<td>X</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Delaying or losing communication passing through him.</td>
<td>.</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
TABLE XXVII (Continued)

<table>
<thead>
<tr>
<th>Behaviors in Which Differences between the Two Groups of Superintendents Were Observed</th>
<th>Behavior More Frequent in the Case of:</th>
<th>Difference Verified Statistically</th>
<th>Level of Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group 1</td>
<td>Group 4</td>
<td>X</td>
</tr>
<tr>
<td>Setting competitive demands of various types..........................................................</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Setting competitive demands for time ...........................................................................</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Settling or attempting to settle competitive demands for finance, space, and equipment</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Anticipating future needs for personnel, changes in program and organization .............</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Planning to attend meetings, hold conferences, keep appointments, etc. ...................</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Planning for changes in buildings, program, and equipment (usually conditioned on the availability of additional finances)</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Planning his own short-range activity or work. ........................................................</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Examining possible or alternate solutions to problems ............................................</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Involving other people in looking for solutions to problems ......................................</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Moving about, leaving his desk or office (frequently resulting in wasted motion) .........</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Behaviors in Which Differences between the Two Groups of Superintendents Were Observed</td>
<td>Behavior More Frequent in the Case of:</td>
<td>Difference Verified</td>
<td>Level of Statistically Confidence</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Co-ordinating functions and structure from &quot;the center of operation&quot;</td>
<td>X</td>
<td>...</td>
<td>X</td>
</tr>
<tr>
<td>In the critical area of determining roles:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Securing suitable persons to fill roles or positions</td>
<td>X</td>
<td>...</td>
<td>X</td>
</tr>
<tr>
<td>Considering opinions of others before assigning personnel</td>
<td>X</td>
<td>...</td>
<td>X</td>
</tr>
<tr>
<td>Using secretaries to help carry out administrative tasks</td>
<td>X</td>
<td>...</td>
<td>X</td>
</tr>
<tr>
<td>Assigning himself a role, volunteering for or accepting a role</td>
<td>X</td>
<td>...</td>
<td>X</td>
</tr>
<tr>
<td>Accepting or volunteering for a role in crucial or precedent-establishing situations and in long-range activity</td>
<td>X</td>
<td>...</td>
<td>X</td>
</tr>
<tr>
<td>Accepting or volunteering for a role in routine activity and day-to-day operations</td>
<td>...</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Participating in professional meetings and activities</td>
<td>X</td>
<td>...</td>
<td>X</td>
</tr>
<tr>
<td>Suggesting to, or telling, someone else what to do</td>
<td>X</td>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>
TABLE XXVII (Continued)

<table>
<thead>
<tr>
<th>Behaviors in Which Differences between the Two Groups of Superintendents Were Observed</th>
<th>Behavior More Frequent in the Case of:</th>
<th>Difference Verified Statistically</th>
<th>Level of Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggesting to, or telling, someone what to do in regard to matters having important long-range effects on the educational program.</td>
<td>X</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>Interpreting roles of other persons.</td>
<td>X</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>Giving a more accurate interpretation of his own role.</td>
<td>X</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>In the critical area of fostering human relations:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observing the common social amenities.</td>
<td>X</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Recognizing the individuality and dignity of persons with whom he came in contact.</td>
<td>X</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Giving recognition or credit to other persons.</td>
<td>X</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Talking about mutual acquaintances, and reminiscing.</td>
<td>. . . . X</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Conveying a feeling of sincerity.</td>
<td>X</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Acting consistently toward people within and outside the school.</td>
<td>X</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>In the critical area of involving people:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making attempts to secure school personnel and community members to participate in making suggestions, plans, and decisions.</td>
<td>X</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Consulting with other persons on specific problems or plans.</td>
<td>X</td>
<td>.001</td>
<td></td>
</tr>
<tr>
<td>Behavior</td>
<td>Behavior More Frequent</td>
<td>Difference Verified</td>
<td>Level of Confidence</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>---------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Meeting with community groups in support of the school-community relationship</td>
<td>X</td>
<td>X .01</td>
<td></td>
</tr>
<tr>
<td>Showing adeptness in working through other people</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Securing more action by others as a result of their involvement</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acting in a manner which secured respect for his judgment</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the critical area of making and maintaining policy:

| Using written statements of policy and principles guiding action          | X                      |                     |                     |
| Showing willingness to set precedent and to revise policy when the situation required such action | X                      |                     |                     |
| Giving explanations and analyzing situations as he sought adherence of others to policy | X                      |                     |                     |

In the critical area of setting goals:

<p>| Specifying goals more closely related to action                           | X                      |                     |                     |
| Specifying goals having significance in terms of long-range accomplishment in the educational program | X                      |                     |                     |</p>
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In the critical area of using the educational resources of the community:

| Reading more extensively in professional and educational publications | X | . . . |
| Consulting outside persons and agencies | X |

In the critical area of working with community leadership to promote educational improvement:

| Identifying more readily community leaders who could serve educational purposes more effectively | X |
| Initiating contacts with community leaders | X |
| Securing action on the part of community leaders | X |
| Directing cooperative effort more effectively | X |
CHAPTER VII

SUMMARY AND CONCLUSIONS

This research has been concerned with the description and analysis of the administrative behavior of ten selected city school superintendents as they performed their professional duties in their respective school systems and communities.

The rationale within which the study was conducted involved ten critical areas of administrative behavior. These areas included: (1) appraising effectiveness; (2) communicating; (3) co-ordinating administrative functions and structure; (4) determining roles; (5) fostering human relations; (6) involving people; (7) making and maintaining policy; (8) setting goals; (9) using the educational resources of the community; and (10) working with community leadership to promote educational improvement. The critical area of fostering human relations was added during the study.

I. THE PROBLEM

The problem of the research was to determine whether or not administrative behavior of city school superintendents could be described and classified within the framework of the critical areas
of behavior; and to determine whether differences between the administrative behavior of a group of superintendents rated most effective and the administrative behavior of a group of superintendents rated least effective, could be identified.

The hypotheses of the study were: (1) the administrative behavior of city school superintendents can be described and categorized within the framework of the nine critical areas of administrative behavior identified in the early exploratory field observations of the School-Community Development Study; and (2) the administrative behavior of school superintendents judged to be more effective educational leaders varies quantitatively and qualitatively within the critical areas from that of school superintendents judged to be less effective educational leaders.

The research was considered to be important for a number of reasons. First, if fundamental theory regarding educational administration and leadership is to be related to fact and thus be verified, modified, or rejected, then, among the facts to be related by theory must be those concerning administrative behavior. Second, if change in administrative behavior is dependent upon a change in factors or the bearing of those factors upon the behavior, then knowledge and understanding of administrative behaviors are necessary to the study of the factors affecting those behaviors. And
third, if effective educational administration is dependent upon the quality of the behavior, then it is important that the behavioral act be examined and related to qualitative aspects of performance.

This study had its origin in the program of research and field service of the School-Community Development Study, one of eight regional centers in the nation-wide program known as the Cooperative Program in Educational Administration. It was one of four concurrent studies intended to test the usefulness of the category system and to give some direction to further related research.

A review of some of the related literature indicated considerable diversity in viewpoints and approaches in the study of administration. Numerous concepts have been proposed, but it has been only in recent years that attention has been directed to the behavioral acts of the administrator and to the variables which affect those acts. It is hoped that this study may have added to the knowledge and understanding of administrative behavior and that it may become useful in clarifying certain concepts of educational administration.

II. THE METHODOLOGY

The method involved in this descriptive research was one of direct observation of ten selected city school superintendents as they performed in their own administrative situations. The subjects
observed were selected on the basis of independent ratings of a jury of eleven experts in the field of educational administration. The field of subject candidates, numbering 125, included all of the school superintendents in Ohio in cities having a population of 5,000 to 100,000. Five superintendents most uniformly rated as "most effective" under the criterion of "overall administrative effectiveness," were included as the sample in Group 1. Five superintendents most uniformly rated as "least effective" made up Group 4 of the sample.

The observations of each superintendent were made during four distinct periods: (1) an orientation visit; (2) an observation period covering an entire morning; (3) an observation period covering an entire afternoon of a different day; and (4) an observation period covering a full day. The series of observations extended over approximately a ten-week period, with the interval between observations of the same subject averaging about two and one-half weeks.

Except during the orientation visit, notes were made during the observation periods. As soon as possible after each observation period, an anecdotal record was prepared from notes and from memory. This record was later edited and the data were entered on "Keysort" cards. Two types of information appeared on
these cards: (1) the circumstance or setting of the behavior; and (2) the behavior to be analyzed and categorized.

The categorization was based upon a set of general a priori definitions expanded to include operational definitions of each critical area. The tentative operational or behavioral definitions were revised after about 25 per cent of the cards had been placed in categories on a trial basis. These cards were then reclassified on the basis of the revised definitions, and the remaining 75 per cent of the cards were then categorized.

After all cards had been placed in main categories, or critical areas, they were classified into subcategories within the main category. Frequency tabulations of the 4,190 units of behavior observed were then made by main category and by subcategory.

A reliability check upon the researcher's categorization was then performed independently by the three other members of the research team, each of whom was himself studying administrative behavior at a different level but within the same rationale and by the same method used in this research. The results of this check indicated that the category system could be used to classify and describe administrative behavior of city school superintendents with an acceptable degree of reliability.

For the purpose of testing the first hypothesis, the dimensions
and properties of the category system were examined and certain findings were reported. The characteristics of the frequency distribution of behaviors were identified in terms of range of frequency, consistency of proportion, and rank order.

For the purpose of testing the usefulness of the category system under the second hypothesis, the Chi-square test and the $t$-test were applied to the main categories to identify differences between the behavior of the most effective (Group 1) and the least effective (Group 4) superintendents.

In order to test further the usefulness of the individual categories in identifying differences in behavior patterns between the two groups of superintendents, the behaviors in the subcategories within each main category, or critical area, were examined. Where practicable, the Chi-square test was applied. In addition to this test, the method of descriptive and illustrative analysis was used to point out differences in the behavior of the two groups of superintendents.

The results of these tests and analyses were then presented as findings of the study.
III. THE FINDINGS RELATED TO THE FIRST HYPOTHESIS

The findings of this study may be summarized under two general headings: (1) the findings related to the first hypothesis, and resulting from an analysis of the data in terms of the category system as a whole; and (2) the findings related to the second hypothesis, and resulting from the analysis of the data in terms of: (a) the category system as a whole; (b) the subcategories of each of the critical areas comprising the entire system; and (c) similar types of behaviors found in two or more categories.

The Need for an Additional Category

In order to describe and categorize the observed administrative behavior of the selected school superintendents, as required by the first hypothesis, it was found necessary to add one additional category, that of fostering human relations, to the nine categories identified in the exploratory field observations of the School-Community Development Study. From the standpoint of frequency, the critical area of fostering human relations ranked fifth among the ten critical areas.

Behavior in the category of fostering human relations appeared to be somewhat different from that observed in the other categories,
in that it was not a direct administrative process. Rather, it seemed to have the qualities and properties of a catalyst in stimulating productive effort on the part of other persons. And it was a kind of behavior which served as a lubricant in interpersonal relationships, thereby sustaining cooperative activity.

Without the addition to the category system of the critical area of fostering human relations, the analysis of the administrative behavior of the ten superintendents in this study would not have been complete. By adding the category, all of the 4,190 units of administrative behavior contained in the data could be, and were, classified in the category system.

The Properties of the Category System

Certain other findings were made with regard to the category system as a whole. The level of inference which the system required of the observer or the analyst was rather high. If the intent of the superintendent, as he acts, could be known, less inference on the part of the observer or analyst would be required and classification would be simplified.

The present category system did specify and include the processes upon which attention was being focused. The system did not appear to be unwieldy because of an excessive number of cate-
gories. However, it seemed that the number of categories in the system could be reduced without lessening the usefulness of the system. This matter will be discussed further in Chapter VIII under recommendations.

The categories seemed to be discrete, since they could not be placed on a single continuum. One category could not be said to have less of a specified property than any category above it.

The problem of exclusiveness of the categories still remains. Some elements of behavior seemed to be common to two or more categories. This fact may be confirmed by a careful examination of the behavioral definitions of the subcategories. It also was confirmed when difficulty was experienced in deciding into which one of two or more critical areas a unit of observed behavior should be placed. This difficulty was experienced by both the observer-analyst and the reliability checkers.

The categories of the system did not appear to be co-ordinate in all cases. This may have been due in part to the manner in which subcategories were defined and placed in the critical areas. But it also seemed that some categories were broader and more inclusive than others. Further, when examined in terms of administrative process, the system appeared to include at least two different orders of behavior: those which changed the status of the work with
respect to proximity to the objective; and those which made possible or effective--those which facilitated--this process behavior in goal-related activity.

Finally, the size and weight, or relative importance, of the unit of behavior were not adequately specified at present for the purposes of thorough and rigorous statistical analysis. The search for such specification will be long and arduous. Although some improvement can be made, it is difficult at present to foresee a complete solution to this problem.

IV. THE FINDINGS RELATED TO THE SECOND HYPOTHESIS

Under the second hypothesis it was held that differences could be observed between the behavior of the most effective superintendents and the behavior of the least effective superintendents, as these men acted in the critical areas.

The Discriminative Properties of the Category System

It was found that the category system, taken as a whole, discriminated between the two groups of superintendents. The most effective men showed a higher frequency of behavior. Application of the Chi-square test to the frequencies of behavior observed in the critical areas for the two groups of men indicated the existence
of a true difference between the two groups at the .001 level of confidence. The \( t \)-test, applied to the frequencies of behaviors converted to \( z \)-scores, indicated the existence of a true difference in frequency of behavior between the most effective men and the least effective men at the .05 level of confidence.

The most effective superintendents were found to differ from the least effective superintendents by showing a higher frequency of behavior in the critical area of involving people. The Chi-square test indicated the difference at the .001 level of confidence. The \( t \)-test indicated the existence of a true difference at the .01 level.

In the critical area of determining roles, the Chi-square test indicated a true difference, at the .01 level of confidence, between the frequencies of behavior of the two groups of superintendents. Here again, the most effective men showed a higher frequency than the least effective men.

The frequency of behavior of the most effective superintendents was found to be significantly higher than the frequency of behavior of the least effective superintendents in the critical area of working with community leadership to promote educational improvement. The Chi-square test indicated the existence of true difference at the .05 level of confidence.

No statistically significant differences between the frequencies
of behavior of the two groups of superintendents were indicated by either the Chi-square test or the t-test in the critical areas of co-ordinating administrative functions and structure, fostering human relations, making and maintaining policy, setting goals, or using the educational resources of the community. Although the Chi-square test indicated differences between the frequencies of behavior of the two groups of superintendents in the critical areas of appraising effectiveness and communicating, the t-test revealed that the chance factor was too great to conclude that real differences did exist in these two categories.

The Discriminative Properties of the Individual Categories

Under the second hypothesis, it was necessary to determine whether or not qualitative differences in behavior between the two groups of superintendents could be identified within the individual categories. The data of each critical area were classified into subcategories. The analysis was then performed by examining the kinds of behavior classified in the subcategories and by examining the manner in which the two groups of men performed as they did similar things. The Chi-square test was applied to the frequencies of behavior in the subcategories in order to detect the significant qualitative differences.
The absence of a completely ordered system of qualitative coding prevented statistical detection of some qualitative differences which were observed to exist between the most effective superintendents and the least effective superintendents. In these cases, descriptions and illustrative units of behavior were used to demonstrate the differences.

The most noticeable and consistent qualitative differences between the two groups of superintendents are summarized under the headings of the ten critical areas.

**Appraising effectiveness.** Statistically significant differences between the two groups of superintendents in appraising effectiveness were found as they sought the opinion or judgment of other persons in the appraisal process, and as they indicated the desirability or importance of some aspect of the school program, or of some action or condition.

Differences in the manner in which the groups appraised effectiveness were found in five characteristics. The most effective superintendents: (1) applied the process of appraising more consistently and more logically; (2) they more frequently involved other persons who were related to, or affected by, the appraisal and its results; (3) they seemed to be concerned more often with things of
greater importance to long-range objectives; (4) they related appraisal more consistently to planning for future action; and (5) they were more optimistic and positive in their outlook as a result of their appraisals.

Communicating. The patterns of communicative behavior of the two groups of superintendents as they gave information revealed statistically significant differences. The least effective men appeared to give information more often, proportionately, by talking. However, the most effective men seemed to talk more often about things of a significant nature—things related to objectives or important action. The most effective men used written communication much more extensively than the least effective men in giving or sharing information.

In obtaining information, significant differences were found. Group 1 used written or printed materials as sources of information more frequently than did Group 4. The least effective men spent considerably more time than the most effective men questioning candidates for teaching positions.

Group 1 differed significantly from Group 4 in retaining information for future use. The Group 1 men appeared to prepare and to keep records and summaries more extensively than the
Group 4 men. They made more notes or reminders for themselves. They made more use of files, bulletin boards, and notebooks for the purpose of retaining information.

The most effective group gave more attention to verifying communication, seeking authenticity, and checking on the dispatching and reception of communication than did the least effective group.

Although statistical tests were not involved in the finding, the most effective men seemed to make use of a greater variety of tools or media of communication. They obtained broader coverage. Incoming communication seemed to flow more smoothly in the cases of the most effective men. And the least effective men appeared to "lose" communication passing through them more often than did the most effective men.

Co-ordinating administrative functions and structure. The most effective superintendents appeared to differ significantly from the least effective men as they co-ordinated administrative functions and structure by giving more attention to settling competitive demands for time. The least effective men showed proportionately more behaviors in settling, or attempting to settle, competitive demands for finances, for space and facilities, and for equipment
and materials. The most effective men appeared to anticipate future needs for personnel and for changes in program and organization more often than did the least effective men.

Taken as a whole, the subcategory of planning failed to show any significant frequency difference between the two groups of men. However, significant differences were found in three types of planning behavior: (1) Group 1 planned more frequently than Group 4 to attend meetings, to hold conferences, and to keep appointments; (2) Group 4 spoke more frequently than Group 1 of plans for changes in buildings, programs, and equipment, although many of these plans were conditioned on the availability of additional finances; and (3) Group 1 planned their own short-range activity or work more frequently than did Group 4.

The most effective superintendents differed significantly from the least effective superintendents in the number of times they discussed or examined possible or alternate solutions to problems. There was also evidence that the Group 1 men involved other people more extensively than the Group 4 men as they looked for solutions to problems.

The least effective superintendents were seen to differ significantly from the most effective superintendents as they moved about more frequently in their work. This moving from one place
to another in the cases of the Group 4 men seemed to result in interruptions of their work and in considerable wasted motion. The Group 1 men appeared to co-ordinate functions and structure more consistently from "the center of operation."

**Determining roles.** In determining roles, the most effective superintendents were observed in a significantly higher frequency than the least effective superintendents as they acted to secure suitable persons to fill roles or positions. They also appeared to consider more often the opinions of others before making assignments of personnel, although this quality was not tested statistically.

The Group 1 men showed a significant difference from the Group 4 men as they made much greater use of secretaries. While no statistical test was applied, a subsidiary finding indicated that the secretaries of the Group 1 men seemed capable of working more independently than the secretaries of the Group 4 men. This condition was attributed, in part, to the role-determining behavior of the superintendents.

The most effective men showed a significantly higher frequency than the least effective men as they accepted or assigned themselves a role. In addition, qualitative differences appeared
in the kinds of things the two groups assigned to themselves or for which they accepted responsibility. The Group 1 men were concerned more often with roles in crucial or precedent-establishing situations and in long-range activity; the Group 4 men involved themselves more frequently in routine and day-to-day activities.

The Group 1 men appeared to participate more frequently in professional meetings and activities than did the Group 4 men. The difference was statistically significant.

While the frequencies did not indicate significant difference within the .05 limit, there was some evidence of qualitative differences between the two groups of men as they suggested to, or told, someone else what they could or should do. The Group 1 men not only had a somewhat higher frequency in this type of behavior, but they also seemed to direct their attention to matters having more important long-range effects on the educational program.

The two groups of men differed significantly as they interpreted or described roles, Group 1 making proportionately more statements about the roles of others, and Group 4 speaking more frequently about their own roles.

As the superintendents interpreted their own roles by generalizing on their activity, the observer obtained the impression that the statements by the most effective men more accurately described
their observed behavior than was the case with the least effective men. The Group 4 men seemed to fall short of their own expectations in actual practice more often than did the Group 1 men.

**Fostering human relations.** The most effective superintendents differed significantly from the least effective superintendents as they fostered human relations through more frequent observance of the common social amenities. A second difference was found in the number of times the two groups recognized the individuality and dignity of persons with whom they worked or with whom they came in contact; the Group 1 men showed a significantly higher frequency in this respect.

Although the variations were not statistically significant, several types of behavior indicated some difference in this category between the two groups of men: (1) Group 1 gave recognition or credit to other persons somewhat more frequently than did Group 4; (2) Group 4 did considerably more reminiscing than Group 1; (3) the most effective men seemed to act with more sincerity and genuineness than did the least effective men; and (4) the behavior, in this category, of the Group 1 men seemed to be more consistent than that of the Group 4 men, as they dealt with persons within the school and outside of the school.
Involving people. As the two groups of superintendents were observed involving people, significant differences were noted in three kinds of activity: (1) the most effective men made more frequent attempts than the least effective men to secure school personnel and community members to participate in making suggestions, plans, and decisions; (2) the Group 1 men met with and consulted other persons concerning action to be taken in problem situations more frequently than did Group 4; (3) the most effective men met with, and participated in the discussion of, community groups in support of the school-community relationship more frequently than did the least effective men.

In general, three additional characteristics were observed, although these were not tested statistically. The Group 1 men seemed to be more adept in working through other people. The involvement which Group 1 secured seemed to produce more action on the part of those involved. And the behavior of the men in Group 1 seemed to command more respect of co-workers and community members than was true for Group 4.

Making and maintaining policy. No statistically significant differences were found between the two groups of superintendents in the kinds of things they did while making and maintaining policy.
However, there seemed to be some indications that the most effective superintendents used written policy statements more often than did the least effective men. They also seemed to be more willing to set precedent and to revise policy when the situation required such action. Group 1 seemed to give more explanations and to analyze situations more completely as they sought to obtain adherence by other persons to policies in effect or being initiated.

Setting goals. No significant differences in frequency between the two groups of men were found in the kinds of goal-setting behavior observed. By disregarding subcategory lines, however, certain general distinguishing characteristics were noted. The most effective men appeared to specify goals more closely related to action than was true for the least effective men. As they set goals for role performance and for organization, the Group 1 men seemed to look farther into the future and the goals seemed to be more comprehensive and of more consequence for the total educational program. And the most effective superintendents appeared to be somewhat more realistic as they set long-range goals; there was less wishful thinking than was seen in the least effective men.
Using the educational resources of the community. No statistically significant differences were found between the two groups of men in the different kinds of activity observed and classified as using the educational resources of the community. However, two general characteristics were noted to be somewhat more common to the most effective superintendents. They appeared to read professional and educational publications more often and in greater variety than did the least effective men. And they consulted persons and agencies outside the school somewhat more frequently and for more significant purposes than did Group 4.

Working with community leadership to promote educational improvement. The low frequencies of behavior in the different kinds of activity within the category of working with community leadership to promote educational improvement made statistical analysis of the subcategories impractical. But by analyzing the data from a different point of view, certain differences between the two groups of superintendents were identified.

The most effective superintendents appeared not only to identify more readily those community leaders who could serve educational purposes more effectively, but they also seemed to initiate contacts with community leaders more frequently than did the least
effective men. Group 1 seemed to secure more action on the part of community leaders. They also seemed to manage and direct cooperative effort more effectively.

**Behavioral Differences Observed to be Present in Two or More Categories**

Although differences in frequencies of behavior were found to be statistically significant in only three of the critical areas, those frequencies being the totals for each area, behavioral differences were observed in each of the remaining critical areas. The differences detected through analysis of the subcategories have already been reported. In addition, differences between the behaviors of the two groups of superintendents were seen from several other points of view.

**Involving other persons.** The three categories showing statistically significant differences were related to the superintendents' management of human resources—the involvement of other persons. But some of these same characteristics were found in other categories. In appraising effectiveness, the behavior of the most effective men was characterized more frequently by seeking opinions of others and involving other persons related to the appraisal and its results. In communicating, these men kept
other persons better informed, they obtained broader coverage, and they used other persons as agents of communication. In coordinating administrative functions and structure, they provided more time for others to do something, they anticipated future needs for personnel, they met more frequently in conference or discussion with other people during planning activity, and they involved other people more often as they sought solutions to problems. In making and maintaining policy, they explained to other persons, and they analyzed with other persons, situations as they sought adherence to policy. And in using the educational resources of the community, they consulted outside persons and agencies more often.

**Identifying and referring to objectives.** The critical area of setting goals, taken independently and as a whole, failed to reveal a statistically significant difference in frequencies of behavior between the two groups of superintendents. However, four qualitative differences in behavior within this category have already been reported. In addition to these, an overlap of this kind of act in some of the other categories resulted in similar differences in behavior related to objectives. In appraising effectiveness, the most effective superintendents more frequently referred to desirable or important aspects of the school program, they seemed to appraise
things of greater importance to long-range objectives, and they related appraisal more consistently to objectives for which future action was being planned. In communicating, they spoke more often about things related to important objectives. In determining roles, they accepted roles in crucial and precedent-establishing situations and in long-range activity in order to facilitate goal achievement, and they gave more attention to matters having important long-range effects on the educational program as they told others what to do. In making and maintaining policy, they appeared more willing to set precedent and to revise policy when it appeared necessary for the achievement of an important objective.

Planning. In the critical area of co-ordinating administrative functions and structure, the subcategory frequencies for planning failed to show a significant difference between the two groups of men. However, differences in three types of planning activity were noted and have been reported for this critical area. Similar differences were noted in several other categories as a result of an overlap of this kind of action. In appraising effectiveness, the most effective superintendents related their appraisals more consistently to plans for future action. In co-ordinating, they anticipated future needs for personnel and for changes in program and organization.
In involving people, they planned more often with other persons, they consulted other persons in connection with plans. In setting goals, since the goals of the most effective men appeared to be more closely related to action, planning appeared as an intermediate step more often in the cases of these men.

V. CONCLUSIONS

The findings of this research make possible the drawing of certain conclusions concerning the rationale used in this study and concerning the behavior observed through the selected superintendents.

The Critical-Areas Approach to the Study of Administrative Behavior

The critical areas of administrative behavior analyzed in this research were formulated on the basis of empirical observation. And when examined in the light of the literature of educational administration, they may be said also to have basis in administrative theory.

Although it was possible to classify all of the observed behavior in the ten critical areas, it would be fatuous to conclude that these critical areas and this rationale are the only "windows" through which to view the administrative behavior of school superintendents.
In fact, reference has been made to other approaches which have been used and which have provided insights into the nature of administrative behavior. But, as a result of this study, it may be concluded that the critical-areas approach is one way of studying educational leadership and administrative behavior. Its usefulness has been demonstrated. Its ability to locate differences between more effective superintendents and less effective superintendents has been confirmed.

The Areas of Significant Differences in Behavior

The analysis of the category system revealed that, taken as a whole, the system discriminated between the behavior of the most effective superintendents and the behavior of the least effective superintendents. Within the system, three areas were found in which the behavior of the most effective superintendents differed significantly from the behavior of the least effective superintendents:

1. determining roles;
2. involving people;
3. working with community leadership to promote educational improvement.

It will be noted that these three areas have a common element: each deals with the behavior of the superintendent as he brings the activity of other persons to bear upon the accomplishment of educational objectives. Each of these three areas focuses
attention upon behavior directly related to the management of human resources. This being the case, it appears reasonable to conclude that the principal difference between the behaviors of the two groups of superintendents was to be found in the leadership acts of organizing, directing, and sustaining cooperative activity directed toward the achievement of educational goals.

What, then, were some of the acts which seemed to contribute most to the difference between the two groups of superintendents as they put to productive use the effort and work of other persons? What did the most effective superintendents do?

1. They appeared to give more careful consideration to the kind of person hired for, or assigned to, a position or role. They attempted to secure personnel who would be suitable for the position being filled. They usually examined a broader field of candidates, and upon having made a choice, they were somewhat more persistent in their efforts to obtain that person.

2. They consulted more frequently with other persons before hiring or assigning personnel. The effect upon co-workers of the assignment of personnel seemed to be considered important in securing efficient teamwork.

3. They more frequently explained the roles of other persons, thus insuring a better understanding, by all, of the part to be
played by each member of the team.

4. They directed the activity of other persons by giving suggestions or instructions, particularly in relation to matters having important long-range effects on the educational program.

5. They made much more use of secretarial personnel in carrying out administrative tasks. Many tasks to which the least effective men gave their time and attention were disposed of, in the cases of the most effective men, by secretaries. The role of the secretary, in these cases, seemed to be more clearly defined and understood.

6. They initiated morecontacts, they made more frequent efforts, to get school personnel and community members to participate in making suggestions, plans, and decisions.

7. After having involved other persons, they made more use of these persons by consulting with them concerning specific problems or plans. And the judgments and opinions of the persons involved seemed to have a bearing upon the final decision and upon subsequent action.

8. They met more frequently with community groups as they sought to maintain and improve school-community relationships. They participated more often in the discussions of these groups.

9. They worked through other persons more often. They
appeared willing to submerge themselves in the activity of other persons while still retaining directive influence. The securing of personal recognition frequently seemed subordinate to getting a job done.

10. They secured more action on the part of the other persons involved. They seemed to be able to initiate action and to sustain it once it had started. Although this achievement appeared to be related to skill in organizing and directing, it seemed also to be due in part to a general pattern of behavior which commanded the respect of others.

11. They analyzed community leadership more thoroughly, and they more readily identified leaders who could serve educational ends more effectively. They also seemed to have evaluated the actual potential of opposition leadership and the effect such leadership might have upon action proposed or taken by the school.

12. They initiated more contacts with recognized community leaders. There appeared to be no hesitancy to "go to the top" when necessary to get a job done.

13. They appeared to give direction to the cooperative efforts of recognized leaders. And when the situation required, they changed their own roles from leaders to followers. Such role change, however, did not necessarily mean the abandonment of the ultimate
objective. More frequently it served the end objective.

Although it was not within the province of this study to account for the causes of differences in behavior of the two groups of superintendents, one causal factor seemed to stand out. By virtue of the fact that marked differences between the two groups did appear as these men utilized human resources, it would seem proper to surmise that the two groups differed in their interpretation of their own leadership roles. In fact, there was some evidence in the data, as the superintendents made statements about their own roles and as they acted, which would support such a conclusion.

The most effective superintendents gave evidence of believing that their role was one of stepping out in front, of moving ahead and taking other persons with them. They appeared to be in command of the situation. As a result, they were leaders because they led.

The least effective superintendents appeared to feel that their role was one of holding things together, of acting as an agent of, or a buffer between, persons. At times they appeared to act as though their role was one of keeping the enterprise from running aground as it drifted with the tide.
CHAPTER VIII

RECOMMENDATIONS AND IMPLICATIONS

As a result of this research and its findings, a number of recommendations can be made and certain implications may be seen for further research, for the training of educational administrators, and for the practicing administrator.

I. RECOMMENDATIONS

Revision and Redefinition of the Category System

The results of this study and the experience of the researcher in applying the rationale make the revision and redefinition of the category system appear both feasible and desirable.

It is recommended, therefore, that the present category system be revised to include six critical areas: (1) appraising effectiveness; (2) communicating; (3) co-ordinating administrative functions and structure; (4) determining roles and directing action; (5) fostering human relations; and (6) making and maintaining policy.

Under this revision, the critical areas of involving people and working with community leadership to promote educational improvement would be subsumed under determining roles and directing
action. That portion of the critical area of using educational resources which deals with human resources would likewise be subsumed under this same category. That portion of the critical area of using educational resources which deals with informational resources would be included in the area of communicating; the portion dealing with material resources would be placed in the area of coordinating administrative functions and structure. The critical area of setting goals would be included in the category of coordinating, as a part of the subcategory of planning.

In addition to this reorganization of the critical areas, it is recommended that further attention be directed to redefining the areas included in the proposed system. One of the first concerns should be the inclusion of those kinds of acts and those characteristics of behavior, not presently included, which were found to discriminate between the most effective and the least effective superintendents.

A second concern in redefinition should be an attempt to draw sharper lines between the categories and to make the categories exclusive. Redefinition could eliminate some of the overlap in the present definitions and behaviors observed in this study.

It seems appropriate, in connection with these recommendations, to point out that the purpose of revision and redefinition of the
categories is not solely one of simplification. Administrative behavior, by its very nature, is a complex phenomenon, and any attempts to oversimplify the rationale in which such behavior is being studied will probably result in a superficial analysis which can contribute little to the genuine understanding of educational administration and leadership. For example, co-ordinating, broadly defined, could include a large part of the activity of the administrator. But to examine administrative behavior in terms of so broad a criterion would yield little in terms of understanding of administration.

The recommended revision and redefinition of the category system should provide multiple criteria for analyzing behavior. These criteria should be selected and ordered in such a way that they may be applied reliably and accurately and with facility.

Construction of a Scale for Qualitative Coding of Behavior

The researcher is of the opinion that the majority of the critical areas in the present study failed to reveal significant differences between the two groups of superintendents because the frequency totals, or "scores," for each critical area were based on a one-to-one ratio for all behaviors in the area. Had a system of qualitative coding been available, it is highly probable that greater
differences in "scores" would have been found. Under these conditions, the category system would have possessed more discriminative properties. This contention may be substantiated, in part, by the results of the analysis of the subcategories in each critical area. The subcategories revealed differences between the behavior of the two groups of men, even though these behaviors were considered in a one-to-one ratio. The use of the total number of behaviors only, in each category, does not make optimum use of the potential of the category system.

It is recommended, therefore, that a scale for qualitative coding of observed administrative behavior be developed and tested. Such a scale could be developed for the present category system, or it might be developed for a revised system.

The preparation of a scale would result in some prior structuring of the observations undertaken in further research. It might also be applicable to self-analysis by the practicing administrator. It would facilitate the focusing of attention upon the specific aspects of behavior under study. It would make possible the consideration of "negative" behaviors and of "omissions" in behavior. And it would make more certain the identification of the really critical aspects of administrative behavior.
Subsidiary Recommendations

In the use or application of a revised category system, or of a qualitative rating scale, in the further analysis of administrative behavior, it is recommended that observers or coders be given careful and thorough training in the use of the instrument. There should be general acceptance by the observers or coders of the operational definitions of the category system. And there should be general agreement among coders that the scales used represent a continuum upon which behaviors may be placed or described. Such training, acceptance, and agreement seem essential to the reliable use of the instrument or instruments.

For the purposes of categorizing or coding observed behavior, it is recommended that word usage be standardized in descriptive or anecdotal records. The problem of semantics was seen to have a bearing upon classification of behaviors in this study. A change in the wording of the descriptive record could conceivably affect the classification attached to the behavior.

If the research is extended through application of the revised category system without a qualitative coding scale, it is recommended that the series of observations be lengthened to determine whether critical areas not found to be discriminative in this study, might
become so under longer and more intensive observation.

It is recommended that observation or data-gathering involved in further study of administrative behavior be extended to include more of the superintendent's administrative activity away from his office, outside of the school, and during evening hours. It should be pointed out that such observation may not be as productive in terms of behaviors per hour as the observations during office hours, but it is quite probable that some critical behaviors occur away from the immediate school environment.

Because of an impression resulting from this study that there was a difference between the two groups of men in the flow or continuity of administrative behavior, it is recommended that an examination be made of the change of direction or of the change of activity as the administrator performs his duties. Such information could contribute to an understanding of the superintendent's job in a variety of situations and to the identification of principles for efficient operation.

In the event of the development of a qualitative rating scale, it is recommended that such a scale be used not only by independent observers but also by the co-workers and associates of the superintendent involved in the research. Such use by co-workers and associates of the administrator might necessitate the development
of a companion scale especially prepared to reflect the judgments of these persons. Such a scale should include identifiable behavioral descriptions which could be applied reliably and objectively by non-research persons after a period of instruction and training.

In order to make the best use of the time of future researchers in observational studies, it is recommended that consideration be given to the determination of the optimum length or number of observations necessary to identify the behavior pattern of the administrator. This is a problem of determining the point of diminishing returns--the point at which the administrator's behavior pattern has been seen.

It is recommended that training in the techniques of research in the behavioral sciences be undergone by persons inexperienced in the use of these techniques, prior to or concurrent with the conducting of any intensive research in the field of administrative behavior. Such training should not only include the use of statistical tools applicable to small samples, but also should provide understandings in interaction process analysis.

It is recommended that the team approach to planning and conducting research in educational administration be employed whenever possible. The value of such an approach is to be found not only in the results of the research but also in the development
of understandings and insights on the part of the members of the team.
The team approach to research is seen as one of the most effective
training devices for the team approach to educational administration
and leadership. It is highly probable that this same value may be
found also in other fields of human endeavor.

II. IMPLICATIONS

Aside from the recommendations, which appear to be necessary
next steps in the continuing research, a number of implications for
further research, for training, and for practice are seen as a result
of this study.

Implications for Research

The present study has not attempted to specify what is
"desirable" administrative behavior on the part of the superintendent.
However, if the effectiveness of a superintendent is determined by
his behavior and if the subjects through whom the behavior in this
study was observed, were "most effective" and "least effective"
superintendents, it would seem that the findings would provide a
beginning in the identification of some objective criteria for effective-
ness. Further research could make a genuine contribution to the
understanding of effective educational leadership by specifying these
criteria.

The relation of the situation to the administrative behavior observed needs further clarification. Does the superintendent act as he does because he has to? Is his behavior determined by the situation in which he finds himself? Some mention has been made of this possibility. But the evidence is lacking. Is a superintendent ineffective because he is operating in an educationally depressed community? Or is the community depressed educationally because of the action, or lack of it, on the part of the superintendent? Could the right man in a depressed community be an effective administrator? A great deal of speculation is possible, but further research is needed to uncover the facts. A study of parallel situations involving different types of men might be one avenue of approach to better understanding of the factors affecting educational administration.

If the effectiveness of an administrative act is to be determined, it appears that the intent of the person performing that act would have a bearing upon a judgment of effectiveness. While intent can often be inferred by an observer, the observer cannot be sure that he has always identified correctly the object of a mental process. If objective criteria for effective administrative behavior are to have meaning for the practicing administrator, some con-
sideration needs to be given to intent. Attention needs to be directed not only to the immediate act, but also to the purpose for which that act was performed. Further research may provide a way of relating intent, behavior, and effectiveness.

If the effectiveness of a superintendent's behavior is judged, at least in part, by the influence he has upon the action of other persons, then the nature or quality of the action of others must be examined. The effectiveness of an administrator cannot be confirmed solely by the fact that he elicits responses or acts on the part of others. These responses and acts of others need also to be weighed in terms of value judgments or objective criteria.

Implications for Training

The present study would appear to have some implications for the preparation and training of educational administrators.

The results of the present study might be made available to students of school administration. These facts would provide tangible evidence that the qualitative aspects of behavior have a relationship to the effectiveness of the administrator. The most effective superintendents were found to perform certain kinds of acts more frequently than the least effective superintendents. Differences between the two groups of men were seen in the manner of performing
the administrative function. These findings could be used to emphasize the importance of administrative skills and leadership acts in the success pattern of the administrator. Knowledge of school administration, in itself, cannot insure effective leadership. That knowledge must be applied through action.

The category system of the present study will provide some guide-posts for the examination of the administrative act. The designation of critical areas and the operational definitions of those areas should be helpful to students of school administration in focusing attention upon types or classes of acts. The rationale would seem to permit the student to take hold of some specifics as he attempts to unravel the complex of administrative behavior.

In order to gain experience in the analysis of administrative behavior, opportunity could be provided for the student to observe school administrators in action, using the category system as the basis of observation. It should be noted, however, that skill in behavior analysis will not necessarily assure skill in administrative action. But the opportunity to observe and analyze will increase the understanding of relationships. Increased understanding should have some effect upon the subsequent behavior of the student as he engages in administrative activity. Self-analysis could be a logical outgrowth of pre-service or in-service practice in analyzing the
behavior of others.

For training programs incorporating field experience or internship for prospective educational administrators, the rationale of this study would appear to be particularly well adapted to the analysis of the behavior of the trainee. The analysis could be performed by the trainee himself or by his supervisors or associates. Under certain conditions, controls could be placed upon the training situation which would be conducive to behavioral change in a desired direction. Limitations are recognized, however, in the extent to which training controls may be imposed upon a public school situation. The educational enterprise cannot be put in unnecessary jeopardy in order to train a prospective administrator. Good judgment will be required in establishing training conditions.

One of the most difficult problems confronting those who direct the training of school administrators is that of creating or developing skills in the analysis of relationships. While the present study will not solve the problem, it should make a contribution to that solution. The rationale itself is based upon relationships; and the data involve descriptions of relationships. However, these need to be studied in connection with the factors which affect educational administration before the concepts are complete. The case study approach, using the present category system, seems to have some potential for
developing skills in the analysis and understanding of relationships, particularly when surrounded by real or hypothesized situational factors.

The appointment to an administrative position has long been conditioned upon the climbing of the ladder of promotion. Seldom is a school administrator appointed who has not proved his merit as a technician in the classroom. Consideration should be given to the possibility of developing a training program which would result in the placement in administrative positions, of selected and trained persons who have not spent time as classroom teachers. Precedent for such procedure may be found in industry. And the literature of educational administration reveals that some of the earliest school superintendents were not educators. The practice of taking out of the classroom skilled teachers in order to convert them, more or less successfully, into administrators would appear to have some undesirable consequences upon the instructional programs of the public schools. It should be possible to train persons for administrative positions, using the dimensions of behavior studied in this research in connection with that training.

Implications for Practice

The ultimate value of this study will not be realized until its
results have a bearing upon the behavior of the practicing school administrator. But due to the fact that the research in administrative behavior cannot be considered complete, it is impossible to offer a set of rules which will insure effective educational leadership on the part of all school superintendents. However, this study does appear to have certain implications for practice at the present time.

The research has identified some ways in which effective school superintendents can and do work. These methods are offered as suggestions for the practitioner's application in his search for ways of increasing his own effectiveness. His creative ability in adapting these suggestions to the peculiarities of his own job will determine largely the usefulness of the research.

The research has also identified some ways in which less effective school superintendents work. The practitioner might profit by an analysis of his own behavior to determine whether some of these acts characterize his method of operation. If this be the case, the practitioner should be able to justify that action logically and on the basis of reason, or he should give consideration to altering that behavior.

Acquaintanceship with the critical areas of behavior should make it possible for the practitioner to engage in self-analysis and, to a degree, in self-evaluation on a continuing basis. With some
of the guidelines offered in this study, it would seem that the superintendent could take steps to improve his own behavior. An awareness of kinds of behavior that have been found to contribute to effective administration would be a first step in the change of behavior.

The practicing administrator might find the rationale helpful as a broad method of approach in dealing with problem situations. Many cues are provided which could aid in developing a plan of attack upon a problem.

Some possibility is seen for the use of the critical areas by boards of education in the selection and retention or dismissal of superintendents. Many more criteria are available and can be used than is customarily the case in decisions of this nature. However, it would appear necessary to alter the present form of the category system in order to make its use by board members practicable. The preparation of a rating scale for this purpose might be one step taken.

Perhaps the greatest single contribution of this research to the improvement of educational administration and leadership, from the standpoint of the practitioner, is the emphasis upon the changing role of the school superintendent. His role is more than that of an agent of the board of education; he is more than a business manager; he is more than a technician. Today's school superintendent is an
educational statesman and a leader of people.

If this report has increased the understanding of administrative behavior as a specialized branch of human behavior, if the report can be used to increase the leadership potential of the educational administrator, then, it will have served a major purpose.
APPENDIXES
APPENDIX A

A REPORT OF A PROJECT PLANNING SESSION

School-Community Development Study
Cooperative Program in Educational Administration

Progress Report
on the
"Critical Areas" Validation Studies
February 18, 1955

Meeting: February 16, 1955 - 2:00-4:00 P.M. - Room 212, Arps Hall

Participants: Dr. Burr, Dr. Campbell, Mr. Clark, Dr. Eikenberry, 
Mr. Hartzler, Mr. Hess, Dr. Jonassen, and 
Mr. Rosenberger.

Purposes:

1. To hear, and discuss, the research proposals of Mr. Clark 
   and Mr. Hartzler.

2. To determine, unofficially, the suitability of the proposals 
   for dissertation purposes.

Discussion:

1. Dr. Eikenberry suggested the possibility of including 
certain superintendents on the jury. Dr. Burr concurred 
in the idea. There are eight cities of over 100,000 
population whose superintendents might be asked to serve 
as jurors, since it is likely that these superintendents 
will not be included in the research sample.

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2. Dr. Burr expressed a preference for the term "administrative associates" instead of "administrative subordinates" in identifying persons with whom the superintendent works. (See paragraph D, 4, page 2, Mr. Hartzler's proposal.)

3. Dr. Jonassen cautioned against being too categorical in the statement of "the nine" areas; considering previous studies, these may be some categories; there may be others.

4. Dr. Jonassen suggested further study of techniques in dealing with "small group samples." (See Bales, in the "American Sociological Review"; and Mr. Quade, of the Sociology Department.)

5. Dr. Jonassen suggested having several men judge behavior (when classifying and ranking), and then determine a coefficient of reliability of judgment. Similar situations or conditions, or "stock" situations, might be selected for observation. Frequency of the act may show something. The possible reduction of variables should be considered, and perhaps planned.

6. Dr. Burr suggested the use of an additional observer at a different time; or, perhaps co-observation at the same time, provided that the situation is not disturbed excessively by the presence of more than one observer.

7. Dr. Burr pointed out the necessity of defining the nine areas operationally.

8. Dr. Eikenberry expressed a concern over the problem of cooperative categorizing of behavior if only one observer sees the behavior. How will the researcher be objective and reliable in classifying data? Dr. Campbell suggested the possibility of limited co-observation, which might provide a basis for more accurate classification of behavior.

9. Dr. Campbell suggested the possibility of a "trial run" as a means of developing a guide for observation. It was pointed out, however, that it is not the purpose of the
study to develop an instrument.

10. Dr. Campbell stated that if an "area" does not show up in the observations of a particular administrator, it may be because: (a) the administrator does not recognize the area of behavior; (b) the area may not be critical; or (c) the timing of the observation prevented seeing such behavior, which might be seen at another time.

Agreement Reached:

It was generally agreed that the proposals were worthy of continuation, development, and implementation; and that it is possible that the research might be used for dissertation purposes. Such a statement has been put in writing and is on file in the Office of the Department of Education. Official approval, however, cannot be granted at the present time.

It was generally agreed that further development of the design of the research is necessary, and that suggestions made at this meeting should be incorporated in the design where practicable.

Next Meeting:

The research team (Mr. Clark, Mr. Hartzler, Mr. Hess, and Mr. Rosenberger) will meet with Dr. Campbell and possibly Dr. Burr, on Monday, February 21, 1955, 8:00-10:00 A.M., Room 204, Arps Hall.

John Hartzler
APPENDIX B

EXHIBIT 1

The Initial Letter from the School-Community Development Study to the Jurors
Dear __________:  

The School-Community Development Study is initiating a new group of field studies in educational administration. Before the work can proceed, the judgments of a panel of experts are necessary. We will be very grateful if you will assist us by acting as a juror.

Enclosed is a more complete description of the task prepared by Mr. John E. Hartzler, a research assistant on our staff.

We realize that such a request places a demand upon your time, but we also recognize that our research effort must make use of the best resources available. We hope you will give us the benefit of your knowledge and experience in developing the study now under way.

Very truly yours,

Lewis E. Harris  
Associate Director

LEH:rh  
Enc.
APPENDIX B

EXHIBIT 2

The Initial Letter from the Researcher to the Jurors
Dear ______________:

In continuing the research by the School-Community Development Study in the field of educational administration, the composite judgment of a jury of experts is needed. This letter is to request that you serve as a member of that jury.

The jurors are being asked to describe those superintendents of public schools with whose administrative performance they are familiar. The pertinent directions and forms are enclosed herewith.

We are well aware of certain handicaps which are involved at this stage of the research. We are also aware of the reluctance with which some jurors will face this request. However, all we are hoping for is a statement of the best judgment of each juror.

To forestall any concern over the protection of individuals involved - both jurors and superintendents - may it be stated clearly that detailed procedures have been developed to protect the anonymity of the jurors as well as the integrity and reputation of the superintendents. The focus of attention in this research is upon administrative behavior and not upon the individual administrator per se. No names of jurors, subjects, or school systems will be reported.

In addition to the full protection of individuals, the coding system is being employed also as a means of securing impartial observations which are as objective in this regard as is possible.

In order that the field work may begin on schedule, we will need the jurors' descriptions not later than Monday, March 7. We will be very grateful to you if you can forward your judgments to us by that date.

Very truly yours,

John E. Hartzler
Research Assistant

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APPENDIX B

EXHIBIT 3

Directions to the Jurors

Directions Project: VS-CA-S
J-1

1. Column A contains the names and locations of certain Ohio public school superintendents.

2. In Column B, place a check mark after the names of all superintendents who can be described by you as a juror. (It is suggested that Column B be completed before placing check marks in Column C.)

3. Column C contains categories by which the superintendents may be described. The quality being described is "over-all administrative effectiveness." Place a check mark in the subcolumn (of Column C) which best describes each superintendent checked in Column B.

NOTE: The design of this research requires that as nearly as possible, the same number of check marks appear in each of the four subcolumns. That is to say, the total number of check marks in each subcolumn (of Column C) should approximately equal one-fourth (1/4) of the total number of check marks placed in Column B.

4. The descriptions:

Subcolumn C-1: "This superintendent is one of the most effective administrators checked in Column B."
Subcolumn C-2: "This superintendent is in the upper half, but is not one of the most effective among those checked in Column B."

Subcolumn C-3: "This superintendent is in the lower half, but is not one of the least effective among those checked in Column B."

Subcolumn C-4: "This superintendent is one of the least effective administrators checked in Column B."

5. Column D contains code numbers which are a part of the method used for protecting individuals involved in the research. This column will not be used by the juror.

6. Tear the pages along the dotted line, destroy the list of names and locations, and return Columns B, C, and D by means of the enclosed stamped, self-addressed, envelope to the School-Community Development Study.
APPENDIX B

EXHIBIT 4
A Sample of the Rating Scale Used by the Jurors

(Before returning, cut or tear along this line.)

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
<th>COLUMN C</th>
<th>COLUMN D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name and Location</td>
<td>Included</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Each blank contained a name and location</td>
<td></td>
<td>S-1</td>
<td>S-2</td>
</tr>
<tr>
<td>Total Number</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Column B (Note: Each of these totals should equal approximately one-fourth (1/4) of the total number in Column B.)

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APPENDIX B

EXHIBIT 5

The Coded Return Envelope Used by the Jurors

BUSINESS REPLY ENVELOPE

First Class Permit No. 184, Sec. 349, P.L. & R., COLUMBUS, OHIO

OHIO STATE UNIVERSITY PRESS
OHIO STATE UNIVERSITY
COLUMBUS 10, OHIO
APPENDIX B

EXHIBIT 6

The Follow-up Letter from the Researcher to the Jurors
THE OHIO STATE UNIVERSITY
Howard L. Bevis, President
COLUMBUS 10

March 11, 1955

Dear ____________:

On February 28, we requested a number of educators in Ohio to assist the School-Community Development Study by serving as jurors in a research project centering upon the public school superintendency. Jury forms were forwarded at that time.

Most of the forms have been returned. We are now making the final "round-up." Since we do not identify the source of the returns, we do not know whether your judgment is in. If you have forwarded it, please forgive us for taking this much of your time again. Also, please accept our thanks to you for your help.

If we do not have your judgment yet, we hope that we may receive it before too long. Since our plans call for the beginning of the field work within the next week, it will be very helpful to us to receive all of the forms within the next few days. Thanks very much for your consideration.

Very truly yours,

John E. Hartzler
Research Assistant

JEH:lap
APPENDIX B

EXHIBIT 7

The Letter of Appreciation from the Researcher to the Jurors
June 3, 1955

Dear ________:

As you may recall, about three months ago the School-Community Development Study requested your assistance in a research project in educational administration. That assistance involved your service as a juror in describing the over-all administrative effectiveness of superintendents of city school systems in Ohio.

This letter is a somewhat belated, but nevertheless sincere, expression of our appreciation for your help in determining the sample involved in the project.

I am happy to report that judgments were received from every one of the jurors in time to be of value in the selection of the sample. And those judgments were of such a nature that it was possible to select a very satisfactory sample.

The field observations involved in this project are now completed. We hope to undertake the analysis of the data during the summer and early autumn. As yet, we are not in a position to specify a date when the findings of the research will be available. But we will notify you when the findings are determined, in case you may be interested in them.

Again, thanks very much for your help in the project.

Sincerely yours,

John E. Hartzler
Research Assistant

JEH:mu

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APPENDIX C

The Letter from the Researcher to the Superintendents

concerning Tentative Schedules
Dear ____________:

Since talking with you on March ___ about spending some time with you between now and June 3, I have attempted to work out a schedule which will meet our requirements and which, I hope, will be convenient to you.

According to the tentative schedule, I would like to plan to come to ____________ on the following days:

___________, A. M. only
___________, P. M. only
___________, all day

If these dates are not satisfactory with you, I hope you will let me know.

Again, may I assure you that no special plans need be made by you for my visits. What you would be doing on the above days if I were not to visit you, is what I hope to observe by visiting you. My visits should not interfere with your regular or already-planned work for those days.

Unless I hear from you to the contrary, I will assume that this schedule is satisfactory and I will make my plans accordingly.

Cordially yours,

John E. Hartzler
Research Assistant

JEH:lap
APPENDIX D

EXHIBIT 1

The Letter of Appreciation from the Researcher to the Superintendents
June 6, 1955

Dear Mr. [Blank]:

May I take this opportunity of thanking you again for the privileges granted to me recently in connection with a research project undertaken by the School-Community Development Study. I deeply appreciate your courtesy and hospitality. You made this association an enjoyable and professionally profitable one for me.

Since last talking with you, I have seen an article prepared by certain members of our staff and published by The School Executive. The article, "CPEA in Ohio," appears in the current (June, 1955) issue of this magazine. This may give you a more complete picture of the work being done by the School-Community Development Study.

Again, thanks for your help. Without this kind of cooperation, the work of the School-Community Development Study would be seriously handicapped.

Sincerely yours,

John E. Hartzler
Research Assistant

JEH:lap
APPENDIX D

EXHIBIT 2

The Letter of Appreciation from the Researcher to the

Presidents of the Boards of Education
Dear ______________:

During the past three months, it has been my privilege to spend some time with your Superintendent of Schools, Mr. ____________, observing educational administration as it occurs. This observation, as well as observation in several other Ohio school systems, has been the basis of a research project undertaken by the School-Community Development Study at The Ohio State University. The School-Community Development Study is a part of the nation-wide program known as the Cooperative Program in Educational Administration.

We want you to know how much we appreciate Mr. ____________'s wholehearted cooperation in this project and his interest in the research. On the four different occasions, covering about two and one-half days, your Superintendent extended to me his gracious hospitality and courtesy. He gave me every possible consideration. And aside from the professional aspect of the research, it was a personal pleasure for me to have this rather close association with Mr. ____________.

I am enclosing a copy of the Report of the Fourth Year School-Community Development Study Review Conference, which was held last February. This may provide you with a little more complete information as to the work of the School-Community Development Study, in case you may be interested. I might also call your attention to an article prepared by members of the School-Community Development Study staff and appearing in the current issue (June, 1955) of The School Executive, entitled "CPEA in Ohio." This presents the story of the work at the Ohio Center.

Sincerely yours,

John E. Hartzler
Research Assistant

JEH:lap
enclosure
APPENDIX E

A Sample Code-Punched "Keysort" Card
APPENDIX F

EXHIBIT 1

Instructions to Reliability Checkers

A. The Data in the Random Sample

1. The cards are arranged in numerical and chronological order.

2. Approximately ten per cent (10%) of the total cards are presented for categorizing. The random sample contains 417 cards; the total number of cards in the data of the study is 4,190.

3. The indented paragraph on each card is the behavior to which the checker's attention is directed. Other statements on the card concern the circumstances or setting of the behavior. In some cases, the latter statements may be of help in determining the category of behavior.

   Although an effort was made to call attention to a single behavior (through editing the original data by setting apart the behavior), in some cases more than one behavior may be seen in the indented paragraph. In some of the latter cases, brackets or underscoring have been used to focus the attention of the checker on the behavior to be categorized.

4. The random sample cards have not been punched for main categories.

B. Recording the Category of Behavior

1. Use the red serial numbers for recording purposes.

2. A "1st Category Choice" should be made for every card. Record the behavior by category number. Category numbers are as follows:

   1 - Appraising Effectiveness

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2 - Communicating

3 - Co-ordinating Administrative Functions and Structure

4 - Determining Roles

5 - Fostering Human Relations

6 - Involving People

7 - Making and Maintaining Policy

8 - Setting Goals

9 - Using the Educational Resources of the Community

10 - Working with Community Leadership to Promote Educational Improvement

3. A "2nd Category Choice" may be made to indicate another category into which the behavior might fall, in case the checker is confronted with uncertainty. It is not imperative that a "2nd Category Choice" be made.

C. Suggestions

1. Since the "operational" definitions are characteristic of the behavior of superintendents (and do not always correspond to those of the other three studies), the checker is urged to first read the definitions carefully.

2. In case of doubt concerning category placement, examine the "operational" or "behavioral" definitions for the likely categories to see if a specific clue is present. Verbs, and their tenses and moods, are of primary importance in analyzing and categorizing the behavior.

3. In case of uncertainty about the category into which a behavior should be placed, leave the space blank, and proceed to the next card, returning to categorize the doubtful card when a clue has appeared or when all of the cards have been examined. The checker will find that by the time he has gone through all of the cards once, he will be much more familiar with the definitions and will be able to make a more accurate placement of the doubtful behaviors.
4. It is doubtful whether the checker should attempt to categorize all the behaviors at "one sitting." On the other hand, he should not let too much time elapse between categorizing sessions. The checker should set his pace according to his mental alertness and physical comfort.
### EXHIBIT 2

Sample of Tabulation Sheet for Reliability Checkers

Reliability Check for Hartzler  
(Superintendents)

<table>
<thead>
<tr>
<th>Red Serial No.</th>
<th>1st Choice Category</th>
<th>2nd Choice Category</th>
<th>Red Serial No.</th>
<th>1st Choice Category</th>
<th>2nd Choice Category</th>
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AUTOBIOGRAPHY

I, John Elwood Hartzler, was born in Elkhart, Indiana, May 7, 1912. I received my secondary school education at Bluffton High School, Bluffton, Ohio. My undergraduate training was taken at Bluffton College, Bluffton, Ohio, and at The College of Wooster, Wooster, Ohio. I received the Bachelor of Arts degree from the College of Wooster in 1933. My first teaching experience was obtained at Jeromesville High School, Jeromesville, Ohio, beginning in September, 1933. After three years at that school, I accepted a position at Ashland High School, Ashland, Ohio, as a teacher in the Social Sciences. During the summer of 1937, I began graduate study in the Department of Political Science at The Ohio State University. The Master of Arts degree was granted to me in 1939 by that institution. In 1943, I was appointed Assistant Principal of Ashland High School. In August, 1951, I became Principal of that School. In 1952, I resumed graduate study at The Ohio State University in the Department of Education, specializing in Educational Administration, Secondary Education, and Elementary Education. During the school year 1954-1955, I was granted a leave of absence from my position at Ashland High School in order to continue my graduate work. While
in residence, I served as Research Assistant on the staff of the School-Community Development Study, the Ohio Center for the Cooperative Program in Educational Administration. In September, 1955, I returned to my position at Ashland High School. Subsequently, I completed the requirements for the degree Doctor of Philosophy at The Ohio State University.