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Craig S Babcock

University of Nevada, Las Vegas

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An investigation of personalities of superintendents from selected public school districts within the western United States

Babcock, Craig S., Ed.D.
University of Nevada, Las Vegas, 1992

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AN INVESTIGATION OF PERSONALITIES OF SUPERINTENDENTS
FROM SELECTED PUBLIC SCHOOL DISTRICTS
WITHIN THE WESTERN UNITED STATES

by
Craig S. Babcock

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Education
in
Educational Administration and Higher Education

Department of Educational Administration and Higher Education
University of Nevada, Las Vegas
December, 1992
The Dissertation of Craig S. Babcock for the degree of Ed.D. in Higher Education is approved.

Chairperson, Anthony Saville, Ed.D.

Examining Committee Member, George Kavina, Ed.D.

Examining Committee Member, Lloyd Bishop, Ph.D.

Graduate Faculty Representative, David Christianson, Ph.D.

Graduate Dean, Ronald Smith, Ph.D.

University of Nevada
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December, 1992
ABSTRACT

AN INVESTIGATION OF PERSONALITIES OF SUPERINTENDENTS FROM SELECTED PUBLIC SCHOOL DISTRICTS WITHIN THE WESTERN UNITED STATES

Craig S. Babcock

The purpose of this study was to establish 16PF personality profiles for superintendents of large and small public school districts from eleven western states, and to determine the significant differences, if any, between the profiles.

Sixteen null hypotheses were formulated based on the sixteen primary personality factors of the 16PF. The first of these hypotheses was:

There was no significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor A, Social Orientation, of the 16PF; using a significance level of .05.

The remaining fifteen hypotheses were stated similarly utilizing the other fifteen personality factors.

Data was gathered, using the Sixteen Personality Factor Questionnaire, from sixty superintendents, thirty from large school districts and thirty from small school districts,
selected from the states of Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Montana, Wyoming, Colorado, and New Mexico.

CONCLUSIONS

Several conclusions were evident from the analysis of the data generated by the study.

1. There was a significant difference between the mean scores of superintendents on Factor B, Ability to Discern Relationships, of the 16PF. This implied that superintendents from large school districts were more abstract thinking, more intelligent, and showed better judgment than superintendents from small school districts.

2. There was a significant difference between the mean scores of superintendents on Factor C, Adaptation to the Environment, of the 16PF. This indicated that superintendents from large school districts were more calm, more emotionally stable and mature, and less affected by feelings than superintendents from small school districts.

3. There was a significant difference between the mean scores of superintendents on Factor I, Emotional Sensitivity, of the 16PF. This suggested that superintendents from large school districts were more tender-minded, more sensitive, and more sentimental than superintendents from small school districts.
4. There was a significant difference between the mean scores of superintendents on Factor Q1, Orientation Toward Change, of the 16PF. This indicated that superintendents from large school districts were more experimenting and more open to change, less conservative, and less tradition bound than superintendents from small school districts.
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CHAPTER 1

INTRODUCTION

The decade of the 1980's may well be remembered as the decade of educational reform or perhaps more accurately as the decade of educational debate and reform proposals. The debate attained national prominence in 1983 when the National Commission on Excellence in Education published its report entitled *A Nation at Risk: The Imperative For Educational Reform*. The Commission, which was created in 1981, was directed to examine the quality of education in the United States, to define problems and barriers that interfered with attaining greater levels of excellence in American education and to make practical recommendations for action. (National Commission on Excellence in Education, 1983, pp.39-40) Soon parents, educators, students, and leaders of business and government on local, state, and national levels were all calling for educational reform.

The debate continued into the 1990's. In 1990, the National Governors' Association (NGA), in cooperation with President Bush, adopted six national education goals to be met by the year 2000. The Bush Administration then adopted a four part plan for meeting those goals. The plan, entitled *America 2000: An Educational Strategy*, called for, among other things, more accountable schools and more
cooperation between schools, business, parents, and civic and religious organizations. (U.S. Department of Education, 1991)

If education reforms were going to make the transition from the drawing board to the chalk board, they would need effective and innovative leaders to advocate education and to mobilize community support. Additionally, strong leadership on the part of the school superintendents would be essential. Furthermore, understanding superintendents' personalities may have contributed to the identification of strong leaders.

STATEMENT OF THE PROBLEM

The purpose of this study was to identify personality profiles of superintendents from selected public school districts in the western United States using Cattell's Sixteen Personality Factors Questionnaire, hereafter referred to as the 16PF. Specifically this study addressed itself to answering the following questions:

1. What was the 16PF personality profile of superintendents from selected large (10,000+ students) public school districts from the western United States?

2. What was the 16PF personality profile of superintendents from selected small (less than 2,500 students) public school districts from the western United States?
3. What were the significant differences, if any, between the two groups of superintendents using the T test as a means of analysis?

NULL HYPOTHESIS

There was no significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on any of the sixteen primary personality factors of the 16PF; using a significance level of .05. The following factors were compared:

Factor A: Social Orientation
Factor B: Ability to Discern Relationships
Factor C: Adaptation to the Environment
Factor E: Dominance
Factor F: Impulsivity
Factor G: Group Conformity
Factor H: Timidity and Boldness in Human Temperament
Factor I: Emotional Sensitivity
Factor L: Suspiciousness
Factor M: Imagination
Factor N: Shrewdness
Factor O: Insecurity
Factor Q1: Orientation Toward Change
Factor Q2: Self-sufficiency
Factor Q3: Self-Discipline
Factor Q4: Tension

(Refer to Appendix A for complete bi-polar descriptions of the primary factors of the 16PF.)

RESEARCH HYPOTHESIS

There was a significant difference between the mean score of superintendents of large public school districts and the mean score of superintendents of small public school districts on the following primary personality factors of the 16PF; using a significance level of .05:

Factor A: Social Orientation
Factor B: Ability to Discern Relationships
Factor C: Adaptation to the Environment
Factor L: Suspiciousness
Factor N: Shrewdness
Factor Q1: Orientation Toward Change
Factor Q4: Tension

(Refer to Appendix A for complete bi-polar descriptions of the primary factors of the 16PF.)

IMPORTANCE OF THE STUDY

Bridges, upon concluding his review of the research on school administrators, indicated that only a handful of studies had investigated the superintendents effect upon schools. (Bridges, 1982, p.12-33)
A similar conclusion was reached by Crowson when he determined that overall research on the superintendency was not thorough and that "the local school district superintendent is one of the least thoroughly researched roles in educational administration." (Crowson, 1987, p.49)

The superintendent symbolized education in the community. Schlechty stated that "whatever moral authority resides in, or is bestowed upon the school system, that authority resides in the office of the superintendent." And ". . .who the superintendent is, what the superintendent values, and the style of operation supported by the superintendent will be manifest throughout the school system." (Schlechty, 1990, p.128)

"In most research the influence of some personality characteristic and some situation on behavior have been jointly considered, without proper specifications of the classes of personality characteristics and situations that are regarded as important in determining particular types of behavior. Moreover, most studies explored the influence of a single personality characteristic in conjunction with some situational variation. We will need to consider the joint influence of a variety of personality characteristics, in interaction with situations, if we are to improve our understanding of how behavior is determined, and the prediction of behavior."
"With the proper specification of the most important personality characteristics, relevant situational influences and their manner of interaction, reasonably accurate predictions about behavior in their specific settings will be possible." (Staub, 1978, p.87-88)

The study was important when one considered that an increased understanding of the personality characteristics of superintendents aided in the understanding and prediction of behavior. And, an increased ability to predict behavior may have aided in identifying those superintendents who were most likely to provide the leadership necessary to transform the nation's schools.

DELIMITATIONS

This study was restricted to the following:

1. The personalities of 60 public school district superintendents: 30 from large school districts (10,000+ students) and 30 from small school districts (under 2,500 students).

2. The use of Cattell's Sixteen Personality Factor Questionnaire (16PF) Form C to establish personality profiles.

3. The use of the T Test to analyze data.

4. The use of superintendent responses only when questionnaires were returned fully and accurately completed.
CONCEPTUAL FRAMEWORK

Many theories had been proposed regarding personality. The theory of this study followed the psychological concept of interactionism or interactional psychology.

Interactionism or interactional psychology in its most general sense considered behavior to be jointly determined by personal and situational factors.

A prime concern in the area of personality is the issue of the determinants or sources of behavior. What initiates the behavioral manifestations of personality? What directs it? How does personality develop? How does one measure personality? Is behavior consistent across situations, or is it situation-specific? How do situations and persons interact in eliciting behaviors? (Endler & Magnusson, 1976, p.1)

Virtually all psychologists recognized the importance of both organism and environment in explaining behavior yet there had been a tendency to emphasize one or the other set of determinants. Those who espoused an internal point of view emphasized characteristics that were a part of the organism while those who proposed an external point of view emphasized characteristics that were part of the environment in order to explain behavior.

There was increasing recognition that behavior was almost always a complex interaction between organism and
environment. Many fields of psychology were exhibiting a growing interest, as indicated by the development of conceptual approaches, in the interaction between internal and external determinants. (Pervin & Lewis, 1978, pp.1-20) An in-depth development of the conceptual framework follows in Chapter 2.

RESEARCH METHODOLOGY

Letters were sent to a sampling of superintendents of large and small public school districts within the eleven western United States. Superintendents were chosen from school districts with kindergarten through twelfth grade student populations. No attempt was made to randomize or obtain a representative sample. Each letter asked for demographic information and whether or not the superintendent would participate in the study. Those superintendents who agreed to participate in the research were sent a copy of the 16PF to be completed and returned to the researcher.

When the questionnaires were returned, they were checked for accuracy of completion. Those chosen to be a part of the research were analyzed statistically using the T test to compare the mean scores of superintendents from large school districts with the mean scores of superintendents from small school districts. Each of the primary personality factors of the 16PF were compared.
A detailed discussion of the research methodology follows in Chapter 3.

DEFINITION OF TERMS

**Personality** -
The pattern of traits characterizing an individual person, trait here meaning any psychological characteristic of a person, including dispositions to perceive different situations similarly and to react consistently despite changing stimulus, conditions, values, abilities, motives, defenses, and aspects of temperament, identity, and personal style. Although the pattern of such characteristics is necessarily unique, personality comprises all of a person's traits, not merely the ones that differentiate the person from others. A descriptive, not a causally efficacious concept, personality (and traits) may be interpreted in terms either of observable consistencies in behavior or of inferred dispositions to behave (behavior being construed in the widest sense, to include implicit, only self-observable thoughts, feelings, emotions, impulses, dreams, and percepts, as well as actions and words observable by others). (Wolman, 1989, p.249)

**Profile** - "a graphic representation of scores or other data by means of curves or histograms." (Goldenson, 1984, p.588)
Sixteen Personality Factor Questionnaire (16PF) - "a factor-analytically derived questionnaire for personality assessment" designed as a measure of a "person's characteristic style of thinking, perceiving, and acting over a relatively long period of time and in a wide range of different situations." (Cattell, 1989, p.2)

Profile Analysis - "a method of evaluating a person in terms of his traits judged against a set of norms or standards." (Goldenson, 1984, p.588)

Large School District - a public school district with a total pupil enrollment of over 10,000 students. (Feistritzer, 1988)

Medium School District - a public school district with a total pupil enrollment of 2,500 to 9,999 students. (Feistritzer, 1988)

Small School District - a public school district with a total pupil enrollment of less than 2,500 students. (Feistritzer, 1988)

ORGANIZATION OF THE STUDY

Chapter one of this study included a brief introduction, an outline of the importance of the study, the conceptual framework that guided the study, and definitions of terms. In addition, it contained hypotheses, delimitations, and questions that guided data collection and analysis.
Chapter two established the conceptual basis for the study and reviewed the literature related to the conceptual framework.

Chapter three detailed the procedures and statistical designs necessary to collect and analyze data.

Chapter four discussed the findings of the data as a result of the statistical processes used.

Chapter five presented conclusions and recommendations relative to the study along with a brief restatement of the problem and a summary.
CHAPTER 2

REVIEW OF THE LITERATURE

INTRODUCTION

The purpose of this chapter was two-fold:

1. To establish the conceptual base for the study, and
2. To review literature in the area of personality and characteristics of educational leaders.

Brody (1989, p.1) defined the psychology of personality as the "study of individual differences" and suggested that since the variety of ways in which people differed was infinite, it was the task of the personality psychologist to describe and study these differences as a means of understanding individuals. The task of describing personal differences took on monumental proportions when one considered that the English language may have contained as many as 30,000 terms that could have been used to describe individuals. (Allport & Odbert, 1936)

Endler and Magnusson (1976) indicated that there were four major models that had the greatest impact on the theory and research of personality. These were the trait model, the psychodynamic model, situationism, and interactionism.
The trait model suggested that behavior was primarily determined by stable dispositions or factors that were internal to the person. Cattell (1957) and Guilford (1959) believed that traits served as a predispositional basis for behavior in many situations. The trait theory of personality recognized the impact of situations because proponents did not believe that people behaved in the same way in different situations. Trait theory did, however, assume that specific personality traits existed for each individual; that the trait retained its rank order across situational differences; and, that traits were the basic units of personality that accounted for cross situational consistency.

Trait theory took into account the disposition of the individual to behave in a similar manner under a diversity of situations, and that the expression of the disposition was contingent upon a set of eliciting conditions. The trait description did not necessarily indicate the situations in which the trait would be manifest. To suggest that a person was assertive was not to say that they were invariably assertive but only that the person had the capacity to behave assertively under certain conditions. It may also have been that a person who was considered to possess a high degree of a certain personality trait would have been likely, either to manifest the trait in many more
situations or with greater intensity, than one who was considered to possess a low degree of the same trait. (Brody, 1988, pp. 7-9)

THE PSYCHODYNAMIC MODEL

The psychodynamic model proposed a basic personality core that focused on the structure of the id, ego, and superego. (Freud, 1959) This personality core then served as a dispositional basis for behavior over the range of situations.

THE SITUATIONAL MODEL

The situational model emphasized external factors (situations) as the primary determinants of behavior. Bandura (1977) Mischel (1973) and Rotter (1975) emphasized a focus on situations and were interested in a person's behavior more than attributes, traits or motives.

Theory and research in personality theory had been influenced primarily by the trait model. However, Endler (1982) indicated that the model making the greatest strides in personality theory and research was interactionism.
THE INTERACTIONAL MODEL

The interactional model of personality (Endler, 1977) assumed, as a basis for reasoning, a continuous interaction between the individual and the situations encountered. Interactionism stressed the interaction between persons and situations and how this interaction promoted or restricted behavior, rather than focusing on whether the persons or situations were a major source of the variance of behavior.

Four major postulates of interactionism had been identified by Endler and Magnusson. (Endler & Magnusson, 1976) These were: 1) behavior was primarily a function of the continuous process of person-situation interactions; 2) the individual was an active agent in this process; 3) cognitive, emotional, and motivational factors played essential roles as individual (person related) factors in the person-situation interactions; and, 4) the person's perception of the situation was an important factor in the behavioral process.

THEORETICAL BASE

The idea that behavior was a function of the interaction between person and environment was a common psychological concept.

An important alternative to the type and trait approaches is to view human behavior as a series of person - environment transactions. The units of
analysis are then not the personal characteristics of the individual alone but the properties of the person-in-situation. Similarities in behavior result from the concurrence of both personal predispositions and situations. (Sundberg, 1977, p.11)

Like people, environments have unique personalities. Just as it is possible to characterize a person's "personality", environment can be similarly portrayed with a great deal of accuracy and detail. Some people are supportive; likewise, some environments are supportive. Some men feel the need to control others; similarly, some environments are extremely controlling. Order and structure are important to many people; correspondingly, many environments emphasize regularity, system, and order. (Insel & Moos, 1974, p.179)

THEORETICAL APPROACHES TO ANALYZING THE INDIVIDUAL-ENVIRONMENT INTERACTION

Several models have been proposed for analyzing the process of individual - environment interaction. The various models have approached the individual - environment interaction from differing psychological points of view, i.e. drive or need, cognitive, behavioral/social learning and general system theory.
MURRAY'S NEED-PRESS MODEL

Henry Murray (1938) distinguished two types of psychologists, the peripheralists and the centralists. The peripheralist defined personality in terms of action or the character of action and focused on external stimuli or the perception of it as the origin of psychological phenomena. Attention was directed toward that which was observable and measurable. The facts that were observed were based upon relationships between the manipulated environment and the behaving, physically responding organism. Personality was therefore the sum total of habitual responses. The interest was in the similarities among people and that which was common among all people. Basically, man was seen as passive and responsive to external stimulation.

The centralist defined personality in terms of the central processes that behavior manifested. Centralists did not limit themselves to the study of overt behavior, but were prepared to study intangibles such as needs, impulses, desires and intentions. The study of overt behavior was not disregarded, there was however, a desire to know the internal life of the subject. Man was seen as active and influenced in all spheres of activity by internal energies and not just passively driven or pulled by outer stimuli. To the centralist, activity could and did occur in the absence of external stimulation.
Murray developed the concepts of need and press to give expression to the internal and external determinants of behavior attributed to the centralists and peripheralists. The concept of need referred to the organized, directed, unitary trend aspects of behavior. The concept of press referred to the responsiveness of the organism to external stimulation.

Needs both led to behavior and affected responses to external stimuli. Murray recognized that the concept of need was similar to that of a trait, and while he recognized parallels between the two concepts, he also emphasized two major differences. First, a trait referred to a recurrent reaction pattern while a need referred to a process that may operate infrequently and only in a limited number of circumstances. Second, a trait referred to an observed behavioral regularity while a need referred to an internal process that may or may not have manifested itself directly or overtly.

Murray felt that while needs could be provoked by internal processes, it was more often the case that they were provoked by forces or press in the environment. Therefore behaviors, which were often complex, expressed need-press combinations in terms of episodes or single organism-environment interactions. Complete behavioral events were therefore seen as being a result of interactions between internal and external forces.
COGNITIVE APPROACHES TO ORGANISM-ENVIRONMENT INTERACTION

A major proponent of cognitive approaches to analyzing organism-environment interaction was Jean Piaget. Piaget emphasized the interaction between the organism and the environment in the development and functioning of structures of cognition. Purely internal and external views were rejected. The organism remained responsive to external events and modified its own structures in accordance with them. Interaction with the environment involved the constant relationship between the processes of assimilation and accommodation. According to Piaget, an organism functioned to preserve its structures while at the same time remained responsive to changing conditions. Life was the auto-regulation or maintenance of stability in the face of outside perturbations.

Behavior is at the mercy of every possible disequilibrating factor, since it is always dependent on an environment which has no fixed limits and is constantly fluctuating. Thus, the autoregulatory function of the cognitive mechanisms produces the most highly stabilized equilibrium forms found in any living creature, namely, the structures of intelligence. (Piaget, 1971, p.37)
Piaget, therefore, emphasized the constant interplay between external factors that caused disequilibria and internal factors that acted as equilibration agents. Life was an ongoing interaction between exogenous and endogenous factors. The organisms efforts were aimed at preserving organization while responding to outside perturbations.

Another cognitive theorist, Hunt (1965) placed emphasis on motivation as an essential characteristic in the organism's informal interaction with its environment. Hunt suggested that discrepancies between current incoming information and relevant information already stored in the brain provided the basis for action on the part of the organism. Congruity provided the basis for stopping the action. The basis for action was, therefore, neither in the organism nor in the environment, but in the interaction between the two. Incongruity between present input and past constants instigated the search for new information. The search was ended when the organism in informed.

Both Piaget and Hunt viewed the organism as an active agent trying to preserve cognitive organizations that had been developed while at the same time remaining open to change.
BEHAVIORAL AND SOCIAL LEARNING MODELS

Behavioral models of analyzing individual-environment interaction followed from Skinner's model which emphasized directly observed behaviors which were governed by maintaining certain conditions in the environment. Wallace (1967) interpreted personality in terms of skills and abilities. Instead of considering needs or traits, Wallace discussed the ability of a person to behave in a certain way under defined stimulus conditions. Behavior was dependent on the concepts of Response Performance, which asks the question: What are the conditions necessary for the performance of the response?

D'Zurilla and Goldfried (1971) suggested that the environment be analyzed in terms of problems the person encountered. The organism was faced with a situation which required a response, a decision must be made concerning the best response, and then the organism must have that response or be able to acquire it as part of its repertoire of problem solving behaviors. Life was viewed as a continuous process of being confronted with new problems and finding ways of solving them. The competent individual had an extensive and variable response repertoire and the ability to make decisions regarding the best response to make in a
given situation. D'Zurilla and Goldfried recognized internal as well as external stimuli and cognitive as well as motoric behaviors.

Julian Rotter (1967) proposed an interactional model which emphasized the importance of situational variables. Rotter hypothesized that the occurrence of a behavior was a function of the expectation that a reinforcement would follow the behavior. The situation was important because the individual's perception of the situation aroused expectations for a reinforcement which determined the direction of the behavior.

Bandura (1977b) rejected the premise that man's behavior was exclusively under external or internal control. He rejected exclusive external control because behavior was not consistent across situations and behavior was not always predictable from an analysis of the external sources of influence. He rejected exclusive internal control because a person's behavior was not always predictable based on an analysis of his personality and the effects of a situation were not consistent across persons. Thus Bandura's sociobehavioristic approach suggested that the organism and the environment were engaged in continuous reciprocal interaction.
Mischel's (1976) cognitive social learning theory suggested that through cognitive activity the individual could overcome stimulus control. The individual could select and influence situations as well as be influenced by them. The effects of situations were strong or weak depending on the characteristics of the situation and the effects of the person were strong or weak depending on the person's organization of cognitive activity. Thus the relationship between situations and persons was interdependent and reciprocal. Situations, through their informational value, modified the behavior of the person while the person organized environmental input and generated his own conditions. The individual had a unique organization of stimulus inputs and response conditions so that it was the individual's organization of cognitive activity that counted in terms of behavior.

GENERAL SYSTEMS THEORY

General Systems Theory (GST) was first introduced by Von Bertalanffy (1966) as a result of his research in the area of biological organisms. Since then it has been expanded as a model for all systems. GST viewed man as an active, self-regulating agent engaged in the processes of selection, organization and coding of stimuli.
Pervin (1978) noted certain general concepts of General Systems Theory. Basic to GST was the distinction between open and closed systems. Closed systems were self-contained and insulated from the influence of the external environment. Open systems, by contrast, were involved with the environment through a continuous exchange of inputs and outputs. GST was concerned with the ongoing processes present within a living system, and with the process between the system and its environment. Living systems exhibited distinctiveness, self-regulation, and purposefulness. A living system made use of feedback from its internal and external environments when orienting itself towards a particular goal or end-point. Interest was in self-regulation, how a system remained responsive to internal and external changes while still retaining its basic identity.

The concept of conflict referred to a condition where either the internal components of the system were incompatible with each other or where the entire system may be incompatible with the surrounding environment. Conflict expressed a failure in adaptation by the system and was seen as a basic antagonism between the interacting parts. Conflict could exist within the system, between the system and its environment, or in the input the system receives from the environment.
In virtually all of the formulations of an interactional position there had been an emphasis on the reciprocal character of the person - environment interaction. This reciprocity suggested that the individual was influenced by his environment while at the same time he was exerting influence on the environment. The individual was not a passive receiver but rather an active participant who interpreted information about his environment and acted based upon his own plans, motives, goals and so forth. The individual, therefore, could seek some environments, avoid others, or change the environment by acting directly upon it.

It should be understood that the main object of interest was the person. The primary goal of psychology was to explain why individuals felt, thought, acted and reacted the way they did in real life situations. The interest in the environment was to provide further understanding of the individual.

The person - environment interaction was seen as an open system and as only one of many systems that existed within a hierarchical arrangement of systems. These systems extended from the micro-level (physiological processes) to
the macro-level (society and culture). Open systems, therefore, existed both above and below the level of the person - environment interaction. (Magnusson & Vernon, 1983, pp.7-9)

THE ENVIRONMENT

Magnusson (1981) reported that during the 1970s, theoretical and empirical study on environments and situations had become an important field of research in personality. This was a result of intense debates on the consistency of personality, and on theory and research in an interactional framework.

OPERATING LEVELS

Magnusson and Vernon (1983) distinguished three levels of analysis of the environment. They were momentary situations, micro-environments, and macro-environments. Momentary situations were divided into actual situations which were defined as a part of the environment that was accessible to sensory perception, while a perceived situation was an actual situation to which an interpreted meaning was attributed based on the frame of reference (micro- or macro-environment) in which it was embedded.
Situations were important because we formed our conceptions about the world, and developed behaviors for dealing with it, through our encounters with actual situations. Knowledge about situations and their accompanying micro-environments (physical, social, cultural) gave us a better understanding of behavior.

The *micro-level* of the environment may be defined as that part of the total physical and social environment that an individual is in contact with and can interact with directly in daily life during a certain period of time (in the family, at school, at work, during leisure time, etc.). The micro-environment is, to some extent, specific to individuals even within the same family. This is important from a developmental perspective because the micro-environment determines the type of situations an individual will encounter.

The *macro-level* of the environment is that part of the total environment that in some way or another influences and determines the character and functioning of the micro-environment. For the social environment this involves the physical, social, cultural, economic, and political structure of the society in which individuals grow up, including technology, language, housing, laws and regulations, customs, etc. At this level the environment is common to most members of groups living in it. (Magnusson & Allen, 1983, p.11)
CHARACTERISTICS OF THE ENVIRONMENT

The macro-level, micro-level and situation level of environments all differed in regards to the factors important to human development. Magnusson (1978) suggested two distinctions between characteristics of the social environment. They were first, structural characteristics, which included complexity, clarity, strength, and promotive versus restrictive and second, content characteristics, which included goals, rules, roles, expectations and norms. The extent to which the environment promoted or inhibited various types of behavior, whether in the social or physical environment, was one of the most important environmental factors affecting human development.

FUNCTIONS OF THE ENVIRONMENT

According to Wohlwill (1973) the environment served two important functions. First, the environment was a source of active stimulation. Since either too little or too much stimulation would result in less satisfaction and less adequate development; the concept of "optimal stimulation" must be considered when discussing active stimulation as a function of the environment. Within the central concept of optimal stimulation lie the subconcepts of "preference", which referred to the preferred level of stimulation, and "enhancement", which referred to the developmentally optimal
level of stimulation. The optimal level of stimulation varied depending on the individual's level of adaptation, which was based on prior experience, learning and maturation.

Second, the environment provided a frame of reference, or a general context within which specific behaviors occurred. In serving as a general context for behavior, the external environment did not assume the role of a direct source of stimulation but rather acted primarily as a medium through which a wide range of behaviors could be manifested.

ACTUAL VERSUS PERCEIVED ENVIRONMENTS

Magnusson (1981) noted that when analyzing the environment distinctions were made between two general conceptions. He designated these concepts the "actual environment" which was described in terms of its social and physical properties, and the "perceived environment" which was based upon the interpretation of the person experiencing it.

THE ACTUAL ENVIRONMENT

The actual environment had two components, the social environment and the physical environment. The character of the social environment affected both the cognitive and the social development of the individual at all levels from the laws and customs of the culture down to the habits, norms,
rules and relationships of small groups and families. The support one received from the social environment was seen as being of particular importance to a positive psychological development. (Sarason & Sarason, 1980)

The physical environment provided the opportunities for and sets the limits of the physical activity that was a prerequisite for physical, cognitive and social development. "Experience of objects, of physical reality is obviously a basic factor in the development of cognitive structures." (Piaget, 1964, p.178)

Many of the problems that have become so difficult in our societies are obviously due to the fact that the physical environments in which we grow up, live and work, and spend our leisure time have not been constructed with due consideration given to human potentialities and needs. By forming the physical environment in a certain way, we promote some types of behaviors and prohibit others - good or bad. This implies a challenge to psychology. Effective research on the physical environment might contribute knowledge that could form the bases for the construction of physical environments that are better adapted to the needs and potentialities of individuals and groups and thus promote physical and mental health. (Magnusson & Allen, 1983, p.16)
THE PERCEIVED ENVIRONMENT

While it was recognized that the actual environment influenced behavior, it was the individual's perceptions and interpretations of the environment that influenced behavior in most cases, and that emotions and values were often strongly associated with the perceived environment.

Magnusson and Allen (1983, p.17) conclude that . . . in order to understand why an individual feels, thinks, and acts as he does in a specific situation, it is necessary to determine his conceptions and cognitive representations of the world and his perceptions and interpretation of the situation in which he finds himself. This is a basic assumption underlying the formulations of an interactional psychology, which asserts that the individual's pattern of stable and changing behaviors across situations is typical for him and can be explained in terms of his characteristic way of perceiving and interpreting situations and situational cues.

Just as people changed, changes also occurred in the environment. These changes, which occurred at both the micro-environment and the macro-environment level, effected the development of the individual.
MACRO-ENVIRONMENT CHANGE

The macro-environment was undergoing constant change. A person's physical macro-environment, for example, underwent change as a result of technical advancements. In years past were major technological advances made in the areas of medicine, communications, computer technology, as well as others.

Ideological and political movements influenced societal norms, rules and roles. Consider the tearing down of the Berlin Wall and the reunification of Germany, or the dissolution of the Union of Soviet Socialist Republics and the subsequent establishment of new and independent states. It is possible for a person to be born in, live in and die in different macro-environments while staying in the same environment. Constant change in the macro-environment meant that different generations may have been born into environments with different norms and expectations. (Elder, 1977)

MICRO-ENVIRONMENT CHANGE

Changes in micro-environments were often a result of changes in the macro-environment in which the micro-environment was found. Other changes in the micro-environment may have been a result of the individual actively changing his environment through direct action;
actively seeking new situations while avoiding previous ones; or changing roles, for example, getting married or becoming a parent. Other changes have resulted from specific circumstances which effected the character of the micro-environments such as a change in family income, the family moving to a new home, or the birth of a child. In addition, biological or physiological changes in the individual may have caused changes in the social environment. For example, aging often lead to reactions from the environment, such as the way the social environment reacted differently to a boy or girl after they had reached maturation as opposed to before they had matured. (Magnusson & Allen, 1983, p.18)

THE PERSON

The person, which was the active agent in the person-environment interaction, could be discussed in terms of three subsystems: the mediating system, the biological subsystem, and manifest behavior. While not an exhaustive representation of the person-centered factors involved in the person-environment interaction, these three subsystems represented a few of the most essential aspects of an individual's functioning within the person-environment interaction. (Magnusson & Allen, 1983, pp.18-19)
THE MEDIATING SYSTEM

"The existing mediatory system determines the way information about the external world is selected, interpreted, and used, and it forms the stage for dealing with problems and plans of action by means of cognitive activity." (Magnusson & Allen, 1983, p.19)

The emotions and values which are associated with specific aspects of the physical and social environments, and which are bound to specific cognitive contents, play a crucial role in determining how an individual selects, interprets, and treats external information with regard to his expectations, decisions, plans, and actions. (Magnusson & Allen, 1983, pp.19-20)

Included within the mediating system was the individual's conceptualization of the world and the subcomponent of those world conceptions, the self concept. In referring to world conceptions, Magnusson and Allen (1983, p.20) stated:

At each stage of development the total system of conceptions about the outer world plays a crucial role in a person's inner thoughts as well as his actual behavior. To a considerable degree one's conception of the world determine which kinds of environments and situations one seeks and avoids, which situational cues
and events one attends to, and how one interprets them. These interpretations form the main basis for a person's actual manifest behavior and also contribute to producing changes in the mediating system.

Bandura (1977) concluded that self concept was the result of cognitive and affective perceptions of the self in relation to physical, social and psychological environments. According to Magnusson and Allen (1983, p.20)

The self-concept system can be described by structural characteristics (complex, differentiated, etc.) and by affective or evaluative loadings (good-bad, like-dislike). Most important of these, however, are the evaluative and cognitive dimensions as they are perceived by the person. The evaluative dimension concerns the positive or negative affect that is associated with the conception of one's self, as conveyed by terms such as self-esteem, self-confidence, and the like (to use positive ends of the dimension). As for the cognitive dimension, the perception by an individual of the degree of his or her competence and of the ability to control outcomes in the physical and social environments play a crucial role in influencing many aspects of one's behavior . . . .
THE BIOLOGICAL SUBSYSTEM

Twin studies had played a central role in studying individual differences in personality. Several studies have been of major importance in investigating the biological factors of personality and personality development. Each of these studies by Eaves and Eysenck (1977), Loehlin and Nichols (1976) and Martin and Jardine (1986) dealt with large populations, measured major personality factors and had been conducted by different investigators using different populations.

Consistent to each of the studies was the conclusion that there was a significant genetic component to each of the personality factors studied.

In their discussion of adult twin studies and major personality factors Eaves, Eysenck and Martin concluded:

In etiological terms, this means that the personality of each individual is molded by his/her unique genotype and unique experiences that he shares with none of his family members. The fact that the MZ twin correlations are all lower than the test-retest reliabilities for the personality measures suggest that a substantial part of the environmental variation within families is due to long-term environmental differences rather than day-to-day fluctuations in behavior. (Eaves, L.J., Eysenck, H.J., & Martin, N.G., 1989, pp.121-122)
The physiological system is a continuous, reciprocal interaction with the mediating system and with behavior; it is influenced by and influences both. Recent physiological research has shown that role of hormones and neurotransmitters is crucial for cognitive and emotional functioning, as manifested, for example, in anxiety and depression. A person's physical equipment determines to some extent his behavior by setting the limits and offering the possibilities for various kinds of behaviors, and its fitness determines to a great extent his satisfaction and well being.

The role of the biological side of the individual is clearly demonstrated in the strong determination of behavior by maturational factors during development in infancy and childhood, but biological factors continue to exert a powerful influence on behavior throughout the life span. At the most basic level, the onset and course of certain developmental sequences are determined genetically in a normative way and are common to all normally developing individuals. In other instances biological development takes place in a process of maturation and learning in interaction with the environment on the basis of and within the limits set by inherited factors. (Magnusson & Allen, 1983, p.21)
MANIFEST BEHAVIOR

The actions and reactions exhibited by an individual were considered his manifest behavior. These behaviors may have been either intentionally initiated by the person or they may have been a reaction to external or internal stimuli, including objectively observable activities, introspectively observable activities, and unconscious processes.

There is considerable disagreement in psychology as to what actually constitutes behavior, although there is a general agreement in that behavior is seen as the activity of an organism. The problem arises in the delimiting of those activities which are considered behaviors. According to behaviorists, for an activity to qualify as a behavior, it must be directly observable and measurable. For other psychologists, activities that qualify as behaviors include ideas, thoughts, dreams, images as well as overt muscular and neurophysiological activities. There is also disagreement in distinguishing activities that are considered behaviors from those activities studied by physiology, that is, the distinction between talking, perceiving, walking, on the one hand, and breathing, digestion, secreting bile, on the other hand. (Wolman, 1989, p.38)
An interactional model of actual behavior in a contemporaneous perspective assumes that what is characteristic of an individual is his or her typical pattern of changing and stable behaviors across situations, which reflects his or her typical way of adjusting and reacting to different situational conditions. In terms of data for a certain behavior, this implies that a person is best described for each kind of behavior by a cross-situational profile that is typical for him or her. (Magnusson & Allen, 1983, p.22)

THE STUDY AND PRACTICE OF ADMINISTRATION

Getzels, Lipham and Campbell (1968) proposed at least three possible approaches concerning the study and practice of administration. The first, a trait point of view, suggested that a successful administrator possessed a large number of traits that were necessary to be successful in administrative endeavors. In other words, the trait point of view suggested that the successful administrator had innate abilities which allowed for successful execution of duties.

The second point of view approached administration from a technological point of view. Given a particular problem, the solution would be arrived at through the application of specific techniques. If the technique were known and the
steps were followed carefully and sequentially, the problem would be solved.

From this point of view, the improvement of administration depends on the discovery and communication of more effective techniques and prescriptions - the productive or more expedient administrator is one who knows and applies the techniques and prescription - who follows the itineraries. (Getzels et al., 1968, p.5)

The third position as discussed by Getzels, Lipham and Campbell suggested that the focus of study and practice in administration should be centered upon concepts, theories and the comprehension of complex relationships.

Getzels, Lipham and Campbell (1968) conceived administration as being a social process that operated within the context of a social system. Since administration functions within a social system it must also be analyzed within that same system. Parsons (1951, pp.5-6) defined a social system as consisting of:

a plurality of individual actions interacting with each other in a situation which has at least a physical or environmental aspect, actors who are motivated in terms of a tendency to the opinionization of gratification and whose relation to their situations, including each other, is defined and mediated in terms of culturally structured and shared symbols.
Getzels, Lipham and Campbell (1968, p.56) conceived a social system as involving two classes of phenomena which were phenomenally interactive while remaining conceptually independent. These two classes consist of the normative (or nomothetic) dimension and the personal (or idiographic) dimension.

THE NOMOTHETIC DIMENSION

According to Getzels, Lipham and Campbell (1968, pp.56-65) the elements of the nomothetic dimension were institution, role and expectation. Each institution, regardless of size, was defined by its constituent roles, and each role by the expectations attached to it.

Institutions generally had at least five basic properties:

1) They were established to carry out a certain purpose.

2) Human agents were required to carry out the institutional purpose.

3) Institutions were structured or organized into component parts or roles with each role having certain responsibilities toward implementing the institutional purpose.

4) Institutions had norms and each agent in the institution was expected to behave in a certain way if he expected to retain his legitimate place in the institution.
5) Institutions had at their disposal positive and negative sanctions for insuring compliance to the norms.

The most important unit for analyzing the institution was the role.

The role was described as, "that organized sector of an actor's orientation which constitutes and defines his participation in an interactive process. It involves a set of complimentary expectations concerning his own actions and those of others with whom he interacts." (Parsons & Shils, 1951, p.23) Roles, like institutions, had several notable characteristics:

1) Roles represented positions within the institution.

2) Roles were defined by expectations. The expectations prescribed what the actor should or should not do within the institution.

3) Role expectations were an intrinsic part of the institution formulated before the actor assumed his role.

4) Roles were flexible and existed along a continuum of behaviors ranging from mandatory to forbidden.

5) Roles complimented each other and were interdependent.

6) Roles varied in scope. (Getzels et al., 1968, pp.60-63.)

The third component of the nomothetic dimension was that of expectations.
Expectations are those rights and duties, privileges and obligations - in a word, those prescriptions - that delineate what a person should and should not do under various circumstances as the incumbent of a particular role in a social system. When the role incumbent acts in accordance with these expectations, he is said to be performing his role in the social system (Getzels et al., 1968, p. 64)

The institutions along with certain roles and expectations fulfilled the goals of the system.

The normative dimension is schematically represented in Figure 1.

Figure 1. The normative dimension

Social System → Institution → Role → Expectation → Institutional Goal Behavior


The social system was therefor described by the institutions, the institutions by their roles, and the roles by their expectations. The nature of institutional goal behavior could be predicted when the institutions, roles and expectations of the social systems were known.
THE IDIOGRAPHIC DIMENSION

The second basic classification within a social system was the personal or idiographic dimension. (Getzels et al., 1968, pp.65-77) The idiographic dimension consisted of two components, personality and need-disposition. Getzels, Lipham and Campbell (1968, p.69) defined personality as "the dynamic organization within the individual of those need-dispositions and capacities that determine his unique interaction with the environment".

Just as roles were defined by the expectation component; personality was defined by the need-disposition component. Parsons and Shils (1951, p.114) defined need-dispositions as "tendencies to orient and act with respect to objects in certain manners and to expect certain consequences from these actions." Getzels, Lipham and Campbell described need-dispositions using the following generalizations:

1) Need-dispositions were forces within the individual.
2) Need-dispositions were, by nature, goal oriented.
3) Need-dispositions influenced cognitions and perceptions.
4) Need-dispositions varied in the ways through which they found expression and could find satisfaction through a variety of situations.
5) Need-dispositions were interrelated in such a manner as to give personality a structure which could not be explained by merely listing the separate need attributes. (Getzels et al., 1968, pp.70-77)

The personal dimension is schematically represented in Figure 2.

Figure 2. The personal dimension.

Social System → Individual → Personality → Need Disposition → Individual Goal Behavior


Within the personal dimension, the social system was defined by the individual, the individual by their personality, and personality by need-dispositions. The nature of individual goal behavior could be predicted when the individual, their personality and their need-dispositions were known.

There were, therefore, "two components of behavior in a social system, the one conceived as arising in institutional goals and fulfilling role expectations, the other as arising in individual goals and fulfilling personality dispositions." (Getzels et al., 1968, p.78) As illustrated in figure 3, observed behavior within a social system was a function of the interaction between the nomothetic and idiographic dimensions.
Figure 3. The normative and personal dimensions of social behavior.

Institution → Role → Expectation

Social System ↑ ↓ Social Behavior

Individual → Personality → Need-disposition


Social behavior was therefore considered to be a result of an individual's attempt to cope with environmental expectations for his behavior in ways which are consistent with his own need-dispositions. Therefore, $B = f(R \times P)$ given that $B$ was observed behavior, $R$ was an institutional role as defined by expectations attached to it, and $P$ was the personality of the individual as defined by his need-dispositions.

The proportion of role and personality factors would vary with the specific system, role, and personality involved. The general nature of this interaction is expressed graphically in figure 4.
According to Getzels, Lipham and Campbell (1968, p.83) social behavior:

is a function of both role and personality, although the proportion of each may vary with the particular situation and the particular act. When role is maximized, behavior still retains some personal aspects because no role is ever so closely defined as to eliminate all individual latitude. When personality is maximized, social behavior still cannot be free from some role prescription.

In addition to the above mentioned factors it was important to consider biological and cultural dimensions when evaluating social behavior. Since man was a biological
organism it was necessary to consider his behavior as it related to his organic processes. Indeed, there was evidence of a genetic influence on personality and this suggested that one cannot adequately understand the social actions of an individual without also understanding the characteristics that individual brought to the situation. However, it was not known with any degree of confidence just how important these influences were. (Brody, 1988, chap.3)

When one takes into account the cultural dimension, it was seen that there was an interaction between the values of a culture and the expectations on institutional roles. The cultural dimension was analyzed by its component parts, ethos and values. Ethos, being defined as a distinguishable pattern of values in a culture, and values, being defined as that set of moral standards which was used as a means of evaluating the relative worth of goals and goal directed behavior. While the subsidiary factors of the biological, environmental, and cultural dimensions must be taken into account when considering a general model of behavior; Getzels et al., considered the operational model for the analysis of the administrative processes to consist of "the interaction of role and personality in the context of value." (Getzels et al., 1968, p.106) The relations among these are graphically represented in figure 5.
DEFINITIONS OF LEADERSHIP

Given the increased attention the study of leadership had received, it was not surprising that numerous definitions of leadership exist. Bennis (1989) suggested that leadership was like beauty: it was hard to define but you knew it when you saw it. With Bennis in mind, the following are a few examples of definitions of leadership.

"Leadership is the process of influencing the activities of an individual or group in efforts toward goal achievement in a given situation." (Hersey & Blanchard, 1982, p.83)

"To lead is to engage in an act that initiates a structure-in-interaction as part of the process of solving a mutual problem." (Hemphill, 1964, p.98)
"Leadership is power based predominantly on personal characteristics, usually normative in nature." (Etzioni, 1964, p.116)

"The leader is the individual in the group given the task of directing and coordinating task-relevant group activities." (Fiedler, 1967, p.8)

"Leadership is the initiation of a new structure or procedure for accomplishing an organization's goals and objectives or for changing an organization's goals and objectives." (Lipham, 1964, p.122)

"Leadership is the activity of influencing people to strive willingly for group objectives." (Terry, 1960, p.493)

"The essence of organizational leadership is the influential increment over and above mechanical compliance with the routine directives of the organization." (Katz & Kahn, 1978, p.528)

LEADERSHIP/FOLLOWERSHIP STYLES

As illustrated in figure 6, Getzels, Lipham and Campbell (1968, pp.145-150) identified three distinct "leadership-followership" styles: the normative style, the personal style, and the transactional style.
NORMATIVE STYLE

The normative style emphasized the requirements of the institution rather than the individual. The individual was seen as being expendable. It was the leader's role to set the guidelines and the follower's role to act within those guidelines. In the equation $B=f(RxP)$ $R$ was maximized and $P$ was minimized.

PERSONAL STYLE

The personal style emphasized the personal dimension of behavior and the requirements of the individual and his personality and need-dispositions rather than the institution and its roles and expectations. In the equation $B=f(RxP)$ $R$ is minimized while $P$ is maximized.

TRANSACTIONAL STYLE

The transactional style was intermediate and moved toward one style or the other as the circumstances required. In the equation $B=f(RxP)$ $R$ and $P$ were minimized or maximized as the situation dictates. The transactional style was at the same time the style most often found while remaining the least well defined.
Figure 6. Three leadership-followership styles.

Role Expectations

Normative ➔ ➔

Leadership ➔

Followership ➔ Transactional ➔ Behavior

Personal ➔

Need-Dispositions


POWER - INFLUENCE APPROACH

According to the power-influence approach to leadership/followership, leaders and followers exerted influence over one another. Leaders exerted influence through power and authority. Power was the ability to get another to change his or her behavior, and authority was the right to exert influence. Leaders derived power from their position (position power) and their personal characteristics such as expertise or charisma (personal power). Followers manifested power to the extent that leaders depended on information they generated, expertise they possessed or cooperation they showed in meeting organizational goals. (Weber, 1947 and Etzioni, 1964)

Etzioni (1961) classified power as either coercive, remunerative or normative depending on the means (physical, material or symbolic) used by those in power to gain compliance. Etzioni suggested that when two types of power
are used at the same time over the same group of people they tended to neutralize each other.

BEHAVIORAL APPROACH

Studies of leader behavioral styles by R. Likert (1961) and Cartwright and Zander (1960) revealed that concern for the individual and for the task of the organization were both important dimensions of leadership. Cartwright and Zander concluded that most group objectives can be categorized under one of two headings: 1) goal achievement which was the achievement of some specific group goal, and 2) group maintenance which was the strengthening of the group itself. Some leaders expressed more or less concern for the individual or the task, and some neither, but in general Halpin (1966) concluded that leaders who frequently displayed high levels of both individual consideration and concern for organizational goals tended to be more effective.

CONTINGENCY APPROACH

Contingency theorists believed that effective leadership was a function of the interaction between leader style or behavior and situational variables. Since leadership behavior was effective or ineffective depending on the situation in which it was exercised, there was no best leadership style.
Fiedler (1967) developed a model in which effectiveness was considered a function of the leader's style in relationship with the favorability of the situation. Style was classified as either task or relationship oriented and was determined by measuring leader attitude. Situation favorability was measured by leader-member relations, the existence of guidelines relative to organizational tasks, and the leader's position power. The most favorable situation existed when leader-member relationships were positive, the task was highly structured, and position power was strong.

According to Fiedler, task-oriented leaders were more effective than relationship-oriented leaders when situations were either very favorable or very unfavorable. Relationship-oriented leaders were more effective when situations were moderately favorable.

Hersey and Blanchard (1982) contended that leadership style should be a function of follower maturity level. Maturity was two-dimensional based on job ability and psychological willingness. Leadership styles were categorized as telling, selling, participating, and delegating. Telling and selling were considered to be task behaviors in which guidance and direction was provided. Participating and delegating were relationship behaviors in which the leader provided facilitating behaviors such as support and encouragement. As the follower matured, the
style of the leader should change from a task orientation to a relationship orientation.

TRANSFORMATIONAL LEADERSHIP APPROACH

The transformational leadership approach viewed the leader as having the ability to change followers' attitudes and raise their level of motivation and morality so as to achieve organizational levels higher than those that might otherwise be expected. Followers were motivated by trust, loyalty and admiration. Leaders could also be motivated to reach higher plateaus through interaction with their inspired and motivated followers. "The focus is on arousing human potential, satisfying higher needs, and raising expectations of both leaders and followers to motivate them to higher levels of commitment and performance." (Sergiovanni, 1989, p.215)

PERSONALITY

Hersey and Blanchard (1982) suggested one of the most difficult changes to make was a complete change in the style of a person. Fiedler (1964) believed that a person's leadership style reflected the individual's basic structure of motivation and need. He also suggested that at best it may take from one to three years of intensive psychotherapy to effect lasting changes in the structure of personality.
Keirsey and Bates (1978) indicated that people were different from each other in fundamental ways such as wants, motives, values, needs, drives, conceptualizations, emotions and cognitions and because of these fundamental differences, no amount of persuasion for them to change could effect a lasting change. And, Likert (1976) found that it took from three to seven years, depending on the size and complexity of the organization, for the members of the organization to reach a level of skillful and easy habitual use of new leadership and to be able to implement new management theory effectively. For these reasons personality was being considered of greater importance when selecting individuals for a leadership role.

Review of early leadership trait studies revealed no consistent patterns of traits for either leaders versus nonleaders or for effective leaders versus ineffective leaders. Stogdill (1948) reviewed about 120 trait studies of leadership that were completed between 1904 and 1947. From this review he concluded that the trait approach to the study of leadership yielded negligible and confusing results.

R. D. Mann (1959) reviewed 125 leadership studies and reached conclusions similar to those of Stogdill. Many traits considered important in one study were found to be unimportant in another.
More recent studies had focused on managers and administrators rather than other kinds of leaders and had used a greater variety of measurement procedures.

One reason for this trend is that the 1948 literature review by Stogdill greatly discouraged many leadership researchers from studying leader traits, whereas industrial psychologists interested in improving managerial selection continued to conduct trait research on the relation of leader traits to leader effectiveness, rather than on the comparison of leaders and nonleaders. (Yukl, 1981, p.69)

As a result this second generation of studies produced more consistent results. Stogdill reviewed 163 new trait studies in 1970 and concluded:

The leader is characterized by a strong drive for responsibility and task completion, vigor and persistence in pursuit of goals, venturesomeness and originality in problem solving, drive to exercise initiative in social situations, self-confidence and sense of personal identity, willingness to accept consequences of decision and action, readiness to absorb interpersonal stress, willing to tolerate frustration and delay, ability to influence other persons' behavior, and capacity to structure interaction systems to the purpose at hand. (Stogdill, 1981, pp.73-79)
Immegart (1988) concluded that the traits of intelligence, dominance, self-confidence, and high energy or activity level were commonly associated with leaders.

PERSONALITIES OF EDUCATIONAL ADMINISTRATORS

Numerous studies had been completed which assessed the personality characteristics of educational administrators. Studies had investigated, among other things, personality as it relates to administrative success, innovation, effectiveness, and leadership. The following represents a sampling of the research.

White (1965, pp.292-300) determined that the educational administrator was interested in people, intelligent, concerned with social norms, practical and conservative or as White stated, "a practically oriented extrovert". Also, the personality characteristics of educational administrators differed from the general population norms at the .01 level of confidence on 10 of the 16 personality factors on the 16PF.

Shiroda (1973) concluded that the personality of school superintendents differed from that of the general population. Shiroda's research suggested that superintendents were more outgoing, intelligent, venturesome, and self controlled than the general population.
Fogarty's (1964) research revealed that superintendents were above average on warmth, sociability, intelligence, sensitivity, absent-mindedness, self-sufficiency, intenseness, and excitability. They were also more emotional, sober and unpretentious than the typical adult male.

Hinman (1967) found that administrators who innovated change were more assertive, enthusiastic, creative and adventuresome than administrators who were considered non-innovators.

Tirpak, (1970) upon completing his investigation of the relationship between organizational climate of elementary schools and the personal characteristics of the school's administrators concluded, that administrators of open climate schools tended to be warmhearted, sociable, good-natured, and attentive to people.

According to Erickson (1969) and Johnson, Carnie, and Lawrence (1967) innovative administrators were more assertive, happy-go-lucky, venturesome, imaginative, experimenting, and relaxed than non-innovative administrators.

Lawrence (1968) investigated the relationship between personality characteristics of school district superintendents and their willingness to accept innovation in education. He found a significant relationship between the size of the district and the degree of innovativeness of
the superintendent. The superintendent of a large district was more apt to be innovative. In addition, highly innovative superintendents were significantly more outgoing, more assertive, more venturesome, more imaginative, more experimenting and more relaxed than low innovative superintendents.

Allen (1967) also investigated superintendent personality and adoption of innovations. No statistically significant differences were found in the personality factor scores between high adoptive and low adoptive superintendents. It was, however, concluded that superintendents from districts with enrollments of 2,000 or more pupils, who had also spent 10 or more years as a classroom teacher were more likely to adopt innovations.

Martin (1975) identified the effective administrator as having been, among other things, outgoing, venturesome, emotionally stable, self-sufficient, and conscientious. And while administrators had a personality structure similar to that of the general adult population, effective administrators had developed given traits to a greater degree than adults from the general population.

Wooten (1983) investigated superintendents of selected school districts in South Carolina to determine if superintendents had certain personality characteristics in common. Wooten's results indicated that generally superintendents were creative, emotionally mature,
persistent, decisive, ambitious and self-disciplined. They were also good communicators and assertive in leadership personality as opposed to being aggressive.

Pressel (1986) found that superintendents were significantly warmer, more shrewd and more conservative than assistant superintendents and principals. Donnan and Harlan (1968) reported significant differences in personality factors between administrators and counselors. Additionally, Lair (1985) discovered significant differences in the personality profiles between superintendents and special education administrators.

SUMMARY

This chapter presented the conceptual base for the study, and a review of the literature in the area of personality and characteristics of educational leaders.

Four major models of personality (trait, psychodynamic, situationism, and interactionism) were briefly discussed.

Several models for analyzing the process of individual-environment interaction were presented. These models approached the individual-environment interaction from the psychological points of view of drive or need, cognition, behavioral/social learning, and general system theory. The person-environment interaction was discussed at some length.
The study and practice of administration, from the viewpoint of Getzels, Lipham and Campbell (1968), was discussed and various leadership/followership styles were presented.

The chapter concluded with a presentation of a sampling of the research which had been conducted concerning the personality characteristics of educational administrators.
CHAPTER 3

RESEARCH DESIGN AND COLLECTION OF DATA

INTRODUCTION

The purpose of this investigation was to use Cattell's 16PF to identify the personality profile of superintendents from selected large (10,000 + students) and small (less than 2,500 students) public school districts from the western United States. The study further sought to determine the significant differences, if any, between the personality profiles of the two groups of superintendents using the T test as a means of analysis.

The purpose of this chapter was to describe the research design and the procedures used for the collection of data.

INSTRUMENT SELECTION

The Sixteen Personality Factor Questionnaire was selected because it was the product of extensive developmental research and over 42 years of applied use.
No other personality measuring instrument has a more substantial scientific foundation. Nor has any instrument undergone a more thorough examination by critics. When evaluated by reasonable standards, the 16PF compares favorably with any other inventory that purports to measure variations in normal personality functioning. (Buros, 1978, p.1080)

The 16PF had been translated into numerous languages and the structure of its factors had been confirmed in over twenty different cultural groups. (Cattell, 1989, p.234)

TEST INSTRUMENT OVERVIEW

The 16PF was a measure of normal adult personality. Through the use of factor analysis, Raymond B. Cattell and his associates established a set of elementary personality dimensions. These were then incorporated into questionnaire form and commercially published as the 16PF in 1949.

Five forms of the 16PF were commercially available: Two forms, A and B, each contained 187 items and required approximately one hour to administer; two forms, C and D, contained 105 items each and required approximately thirty minutes to administer; the fifth form, Form E, which was designed for individuals with a low reading level, contained 128 items. (Cattell, Eber & Tatsuoka, 1970)
The sixteen primary scales of the 16PF measured temperament -
a person's characteristic style of thinking, perceiving, and acting over a relatively long period of time and in a wide range of different situations. These personality traits are manifested in a set of attitudes, preferences, social and emotional reactions, and habits. Each trait has its own history, and is derived from a complicated interaction between inherited disposition and learning from experiences. Some traits primarily involve internal regulation of impulses and service defensive or adaptive purposes. Others are maintained by habit or are functionally autonomous. Still others seem to be stylistic responses to the pressure of inner drives. In all, they have a pervasive effect on practically every facet of a person's overall functioning and way of being in this world. (Cattell, 1989, p.2)
Thus the central feature of the 16PF ... which distinguishes it from most other adult questionnaires is that it is firmly based on the personality sphere concept ... a design to insure initial item coverage for all the behavior that commonly enters ratings and the dictionary descriptions of personality. Thus, it has not been built up only by factoring of questionnaire material, but is part of the general structuring research on personality in everyday life rating data, objective tests, etc. (Cattell, Eber & Tatsuoka, 1970, p.6)

The 16PF Form C 1969 Edition R consisted of 105 items, each with three possible responses. The 16PF was bipolar, each of the sixteen primary personality traits had opposite meanings which were on two ends of a continuum. Thus, an individual who scored high on Factor A would be considered cool and reserved, while an individual who scored low on Factor A would be considered warm, good natured, and attentive to people. The bipolar descriptions of the traits for all sixteen factors of the 16PF are listed in Appendix A.
RELIABILITY

Cattell et al. considered what they called the "dependability coefficient" as the most important of several varieties of reliability coefficients. They defined the dependability coefficient as "the correlation between the two administrations of the same test when the lapse of time is insufficient for people themselves to change with respect to what is being measured". (Cattell, Eber & Tatsuoka, 1970, p. 30) Test - retest reliability for each of the sixteen factor scales on Forms C & D ranged from .67 to .83, averaging .78.

REVIEW OF HYPOTHESES

For this study it was hypothesized that:

1. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor A, Social Orientation, of the 16PF; using a significance level of .05.

2. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor B, Ability to Discern Relationships, of the 16PF; using a significance level of .05.
3. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor C, Adaptation to the Environment, of the 16PF; using a significance level of .05.

4. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor L, Suspiciousness, of the 16PF; using a significance level of .05.

5. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor N, Shrewdness, of the 16PF; using a significance level of .05.

6. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor Q1, Orientation Toward Change, of the 16PF; using a significance level of .05.

7. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor Q4, Tension, of the 16PF; using a significance level of .05.
(Refer to Appendix A for complete bi-polar descriptions of the primary factors of the 16PF.)

SAMPLE POPULATION

The sample population came from both rural and urban settings of the eleven western states of Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Montana, Wyoming, Colorado, and New Mexico. The population selected consisted of superintendents of large and small public school districts that had a kindergarten through twelfth grade enrollment.

An education directory was obtained from the state department of education for each of the eleven states. School districts in each state were then identified according to pupil population served and only public school districts with enrollments in grades K-12 were considered for inclusion in the study. The public school districts with K-12 pupil enrollment were then classified according to size (total pupil enrollment) and only those meeting the definition of a "large" school district (10,000+ students) or a "small" school district (less than 2,500 students) were considered for inclusion in the study. No attempt was made to randomize or select a representative sample. Table 1 indicates the total number of large public school districts and small public school districts, by state, considered for inclusion in the study.
Table 1

SOURCE OF SAMPLING POPULATION

<table>
<thead>
<tr>
<th>State</th>
<th>Large Districts</th>
<th>Small Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>10</td>
<td>57</td>
</tr>
<tr>
<td>California</td>
<td>75</td>
<td>87</td>
</tr>
<tr>
<td>Colorado</td>
<td>16</td>
<td>138</td>
</tr>
<tr>
<td>Idaho</td>
<td>3</td>
<td>85</td>
</tr>
<tr>
<td>Montana</td>
<td>4</td>
<td>42</td>
</tr>
<tr>
<td>Nevada</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>New Mexico</td>
<td>5</td>
<td>61</td>
</tr>
<tr>
<td>Oregon</td>
<td>5</td>
<td>79</td>
</tr>
<tr>
<td>Utah</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Washington</td>
<td>20</td>
<td>166</td>
</tr>
<tr>
<td>Wyoming</td>
<td>3</td>
<td>35</td>
</tr>
</tbody>
</table>
Ten of the states—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming—had a relatively small number of school districts which met the classification criteria for inclusion in the study as a large school district. Because of the small numbers involved, all of the large school districts from these ten states were considered for inclusion in the study. One state, California, had a notably larger number of large school districts. The sample population of large school districts from California was chosen at random. The procedure for choosing the large school districts from California consisted of assigning each of the districts a number. Numbers were then chosen using the random number generator feature of the PFS: First Choice version 3.0 software program run on an IBM PC compatible computer. Districts whose assigned numbers corresponded to the randomly generated numbers were designated for inclusion in the study.
Like numbers of small school districts from each state were chosen for possible inclusion in the study. As an example, Arizona had 10 large school districts the superintendents of which were all included as possible participants in the study. Arizona also had 57 small school districts. Superintendents from 10 of the 57 small school districts were chosen, at random, for possible inclusion in the study. Since each state had a larger number of small school districts than large school districts, the sample population of small school districts from each state was chosen at random using the random number generator procedures outlined above.

DATA COLLECTION PROCESS

The superintendents of each of the selected districts were sent a letter of introduction (Appendix B) which explained the purpose of the study and asked if they would be willing to participate in the study. Table 2 represents total number of letters, by state, sent to superintendents of large and small school districts.
Table 2

TOTAL LETTERS SENT, BY STATE

<table>
<thead>
<tr>
<th>State</th>
<th>Large Districts</th>
<th>Small Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>California</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Colorado</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Idaho</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Montana</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Nevada</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>New Mexico</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Oregon</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Utah</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Washington</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Wyoming</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
Superintendents who stated a willingness to participate in the study were each sent a copy of the 16PF, a separate coded answer sheet, and a cover letter of instructions (Appendix C). Also included was a self-addressed, stamped envelope in which survey participants were to mail their responses directly to the researcher. Superintendents were asked not to identify themselves, by name, on the answer sheets. Code numbers written on each answer sheet were used to identify whether the answer sheet came from a superintendent of a large or small school district. The same code numbers were also used to determine the need for follow-up. After two weeks, nonrespondents were sent a follow-up post card and encouraged to respond.

Upon receipt of the returned 16PF answer sheets, the researcher checked them for completeness and accuracy. Thirty properly completed 16PF protocols were received from superintendents of the large school districts and all were included in the study. Forty-eight properly completed protocols were received from superintendents of the small school districts. Thirty of the forty-eight were chosen, using a random number generator, for inclusion in the study. Table 3 indicates the number of superintendents, by state, who were sent questionnaires and the number of superintendents, by state, who actually participated in the study.
Table 3

NUMBER OF SUPERINTENDENTS AGREEING TO PARTICIPATE IN THE STUDY

( ) NUMBER OF SUPERINTENDENTS ACTUALLY PARTICIPATING IN THE STUDY

<table>
<thead>
<tr>
<th>State</th>
<th>Large Districts</th>
<th>Small Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>4 (2)</td>
<td>6 (3)</td>
</tr>
<tr>
<td>California</td>
<td>14 (8)</td>
<td>19 (9)</td>
</tr>
<tr>
<td>Colorado</td>
<td>6 (1)</td>
<td>11 (5)</td>
</tr>
<tr>
<td>Idaho</td>
<td>2 (2)</td>
<td>2 (1)</td>
</tr>
<tr>
<td>Montana</td>
<td>1 (1)</td>
<td>1 (0)</td>
</tr>
<tr>
<td>Nevada</td>
<td>2 (2)</td>
<td>2 (1)</td>
</tr>
<tr>
<td>New Mexico</td>
<td>2 (2)</td>
<td>5 (3)</td>
</tr>
<tr>
<td>Oregon</td>
<td>0 (0)</td>
<td>4 (2)</td>
</tr>
<tr>
<td>Utah</td>
<td>8 (5)</td>
<td>6 (2)</td>
</tr>
<tr>
<td>Washington</td>
<td>9 (6)</td>
<td>7 (4)</td>
</tr>
<tr>
<td>Wyoming</td>
<td>1 (1)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>TOTALS</td>
<td>49 (30 = 61.2%)</td>
<td>63 (30 = 47.6%)</td>
</tr>
</tbody>
</table>

Participant answer sheets were hand scored using a stencil key for Form C of the 16PF. Raw scores for each of the sixteen primary personality factors were converted to standard scores using "Norms for General Population Female Form C" and "Norms for General Population Male Form C" as found in Tabular Supplement No. 2 to the 16PF Handbook. (IPAT, 1972, p.3 & p.6)
Statistical analysis of the standard scores was performed using the paired T test function of MYSTAT (SYSTAT, 1988) run on an IBM PC compatible computer.

SUMMARY

This chapter presented a review of the purpose of the investigation, an overview of the test instrument, and a review of the research hypotheses. Also included was a description of the sample population, and the procedures used for the collection and analysis of data.
Chapter 4

ANALYSIS OF DATA

INTRODUCTION

The purpose of this chapter was to take the data generated by the 16PF questionnaires, present them in both written and graphic form, and then interpret and discuss the results within the context of the research questions and the purpose of this study.

The purpose of this study was to use Cattell's 16PF Questionnaire to establish the personality profiles of selected public school district superintendents from large and small school districts within the western United States. Once the profiles were established the study was to determine what significant differences, if any, exist between the personality characteristics of the two groups of superintendents.

RESPONDENT DEMOGRAPHICS

There were 240 letters of introduction sent to selected public school district superintendents in the eleven western states of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. Letters were sent to 120 superintendents of large school districts and 120 superintendents of small school districts.
As a result, forty-nine of 120 superintendents (40.8%) from large school districts agreed to participate in the study by returning affirmative responses to the letter of introduction. Each of these superintendents was sent a copy of the 16PF questionnaire. Seventy-one of 120 superintendents (59.2%) either responded negatively or did not respond at all to letters sent.

Figure 7 represents response to letters sent to superintendents of large school districts.

Thirty out of forty-nine (61.2%) of the superintendents from large school districts who agreed to participate in the study returned completed questionnaires. All thirty were completed correctly and were included in the study.
Nineteen out of forty-nine superintendents (38.8%) from large school districts who agreed to participate in the study did not return questionnaires even after follow-up post cards were sent encouraging their participation. Negative responses, or no response at all, were received from seventy-one of the 120 superintendents (59.2%) from large school districts.

Figure 8 represents 16PF questionnaires returned by superintendents from large school districts who agreed to participate in the study.

Figure 8
16PF Returned/Not Returned
Large School Districts

16PF Not Returned (38.8%) 16PF Returned (61.2%)
Sixty-three out of 120 superintendents (52.5%) from small school districts agreed to participate in the study by returning affirmative responses to the letter of introduction. Each of these superintendents was sent a copy of the 16PF questionnaire. Fifty-seven of 120 superintendents (47.5%) either responded negatively or did not respond at all to letters sent.

Figure 9 represents response to letters sent to superintendents of small school districts.

Forty-eight out of sixty-three superintendents (76.2%) from small school districts who agreed to participate in the study returned completed questionnaires. Thirty of these were chosen at random for inclusion in the study.
Fifteen of the superintendents (23.8%) from small school districts who agreed to participate in the study did not return questionnaires even after follow-up post cards were sent encouraging their participation. Negative responses, or no response at all, were received from fifty-seven of the 120 superintendents (47.5%) from small school districts.

Figure 10 represents 16PF questionnaires returned by superintendents from small school districts who agreed to participate in the study.

Figure 11 graphically represents the number of letters sent, the number of questionnaires sent, the number of questionnaires returned, and the number of participants in the study for both large and small school districts.
An analysis of the data for the sixty superintendents included in the study produced the following characteristics about the participants.

AGE

The ages of participants from large school districts ranged from 39 to 69 years old. The mean was 53.0 years of age with a standard deviation of 7.11.

The ages of participants from small school districts ranged from 41 to 65 years old. The mean was 51.3 years of age with a standard deviation of 6.86.

Figure 12 graphically represents the ages of the superintendents participating in the study.
SEX

It was found that 93.3 percent, or 28 of the 30 superintendents from large school districts were male, while 6.7 percent or 2 respondents were female.

Of the thirty participants from small school districts 100.0 percent were male.

Figure 13 graphically represents the sex of the superintendents participating in the study.
All of the participants in the study had either their Masters, Specialist, or Doctors degree. Of the participants from large school districts, two (6.7 percent) had their Masters degree, one (3.3 percent) had a Specialist degree, and twenty-seven (90 percent) had their Doctorate.

Fifteen (50 percent) of the participants from small school districts had their Masters degree, three (10 percent) had their Specialist degree, and twelve (40 percent) had their Doctorate.

Figure 14 graphically represents the highest educational degree obtained by participants in the study.
YEARS EXPERIENCE

Years of experience was represented as total years of experience as a public school district superintendent. Total years of experience as a superintendent for participants from large districts ranged from a low of one year to a high of thirty-four years with a mean of 10.64 years and a standard deviation of 9.80.

Total years of experience as a superintendent for participants from small school districts ranged from a low of one year to a high of twenty-seven years with a mean of 9.36 years and a standard deviation of 6.78.

Figure 15 graphically represents the total years of experience as a superintendent of schools for participants of the study.
YEARS IN PRESENT POSITION

Years of experience in their present position ranged from a low of one year to a high of thirty-four years for superintendents from large school districts. The mean was 7.70 years with a standard deviation of 7.29.

Superintendents of small school districts had been in their present position from a low of one year to a high of fourteen years. The mean was 4.87 years with a standard deviation of 3.77.

Figure 16 graphically represents the number of years participants have been superintendents in their present position.
Scores for each of the factors of the 16PF range from 1 to 10, this is a standard ten or "sten" scale. On a sten scale, the mean is 5.5 and the standard deviation is 2.0. Scores that fall between 3.5 and 7.5 (one standard deviation below to one standard deviation above the mean) are considered average for the normal adult population. Only when scores fall below 3.5 or above 7.5 are they considered to be distinctly outside the average range for the normal adult population.

Table 4 lists the sten scores for each of the primary factors of the 16PF for superintendents of large school districts.
Table 4
STEN SCORES FOR SUPERINTENDENTS FROM LARGE SCHOOL DISTRICTS

<table>
<thead>
<tr>
<th>16PF Factor</th>
<th>Description</th>
<th>Mean Sten Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Social Orientation</td>
<td>7.43</td>
</tr>
<tr>
<td>B</td>
<td>Ability to Discern Relationships</td>
<td>7.13</td>
</tr>
<tr>
<td>C</td>
<td>Adaptation to the Environment</td>
<td>7.27</td>
</tr>
<tr>
<td>E</td>
<td>Dominance</td>
<td>5.60</td>
</tr>
<tr>
<td>F</td>
<td>Impulsivity</td>
<td>4.93</td>
</tr>
<tr>
<td>G</td>
<td>Group Conformity</td>
<td>6.03</td>
</tr>
<tr>
<td>H</td>
<td>Timidity and Boldness in Human Relationships</td>
<td>5.97</td>
</tr>
<tr>
<td>I</td>
<td>Emotional Sensitivity</td>
<td>6.00</td>
</tr>
<tr>
<td>L</td>
<td>Suspiciousness</td>
<td>4.30</td>
</tr>
<tr>
<td>M</td>
<td>Imagination</td>
<td>5.37</td>
</tr>
<tr>
<td>N</td>
<td>Shrewdness</td>
<td>5.17</td>
</tr>
<tr>
<td>O</td>
<td>Insecurity</td>
<td>4.60</td>
</tr>
<tr>
<td>Q1</td>
<td>Orientation Toward Change</td>
<td>6.00</td>
</tr>
<tr>
<td>Q2</td>
<td>Self-Sufficiency</td>
<td>5.17</td>
</tr>
<tr>
<td>Q3</td>
<td>Self-Discipline</td>
<td>5.83</td>
</tr>
<tr>
<td>Q4</td>
<td>Tension</td>
<td>4.87</td>
</tr>
</tbody>
</table>
Figure 17 graphically represents the personality profile established for superintendents of large school districts.

Figure 17

Personality Profile of Superintendents
From Large Districts

Table 5 lists the sten scores for each of the primary factors of the 16PF for superintendents of small school districts.
Table 5
STEN SCORES FOR SUPERINTENDENTS FROM SMALL SCHOOL DISTRICTS

<table>
<thead>
<tr>
<th>16PF Factor</th>
<th>Description</th>
<th>Mean Sten Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Social Orientation</td>
<td>7.37</td>
</tr>
<tr>
<td>B</td>
<td>Ability to Discern Relationships</td>
<td>6.20</td>
</tr>
<tr>
<td>C</td>
<td>Adaptation to the Environment</td>
<td>6.07</td>
</tr>
<tr>
<td>E</td>
<td>Dominance</td>
<td>5.57</td>
</tr>
<tr>
<td>F</td>
<td>Impulsivity</td>
<td>5.33</td>
</tr>
<tr>
<td>G</td>
<td>Group Conformity</td>
<td>5.77</td>
</tr>
<tr>
<td>H</td>
<td>Timidity and Boldness's in Human Relationships</td>
<td>5.60</td>
</tr>
<tr>
<td>I</td>
<td>Emotional Sensitivity</td>
<td>4.87</td>
</tr>
<tr>
<td>L</td>
<td>Suspiciousness</td>
<td>5.03</td>
</tr>
<tr>
<td>M</td>
<td>Imagination</td>
<td>5.00</td>
</tr>
<tr>
<td>N</td>
<td>Shrewdness</td>
<td>5.93</td>
</tr>
<tr>
<td>O</td>
<td>Insecurity</td>
<td>5.40</td>
</tr>
<tr>
<td>Q1</td>
<td>Orientation Toward Change</td>
<td>4.83</td>
</tr>
<tr>
<td>Q2</td>
<td>Self-Sufficiency</td>
<td>5.63</td>
</tr>
<tr>
<td>Q3</td>
<td>Self-Discipline</td>
<td>5.43</td>
</tr>
<tr>
<td>Q4</td>
<td>Tension</td>
<td>5.53</td>
</tr>
</tbody>
</table>
Figure 18 graphically represents the personality profile established for superintendents of small school districts.

**Figure 18**

**Personality Profile of Superintendents**
From Small Districts

Figure 19 graphically represents the comparison of personality profiles established for superintendents of large and small school districts.
TESTING OF HYPOTHESES

RESEARCH HYPOTHESIS 1.

There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor A, Social Orientation, of the 16PF; using a significance level of .05.
Factor A measured emotional orientation toward other people. Since the factors of the 16PF were listed in order of their effect on behavior, it was Factor A which made the largest single contribution to the assessment of personality of all the factors of the 16PF. It was a person's orientation toward Factor A that largely determined whether energies were focused on social interactions or on objects and ideas. Persons who scored high (7.5 or above) on Factor A were considered to be good natured, easygoing, attentive to people, trustful and ready to cooperate. Individuals who scored low (3.5 or below) on Factor A were considered to be critical, cool, aloof and distrustful.

Superintendents from large school districts obtained a mean score of 7.43 on Factor A. This was in the high average range and suggested that they were more warm and outgoing than the average adult. The difference, however, was not analyzed to determine statistical significance.

Superintendents from small school districts obtained a mean score of 7.37. This was also in the high average range, and suggested that superintendents from small school districts were more warm and outgoing than the average adult. The difference, however, was not analyzed to determine if it was statistically significant.
A comparison of Factor A scores of superintendents from large school districts and those of superintendents from small school districts resulted in a T distribution factor of .167. A T factor of .167 was not significant at the .05 level established for this study.

Research Hypothesis 1 was therefore rejected because there was no significant difference between the mean scores of superintendents from large and small school districts for Factor A, Social Orientation.

RESEARCH HYPOTHESIS 2.

There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor B, Ability to Discern Relationships, of the 16PF; using a significance level of .05.

Factor B measured intelligence, which in the case of the 16PF, was defined as the capacity to discern relationships in terms of how things stand relative to one another. Cattell used recognizing analogies and similarities, and being able to classify events and form typologies, as essential skills involved in this discernment. Unlike the other factors of the 16PF, Factor B measured ability not temperament. Individuals who scored high (7.5 or above) on Factor B were faster learning, more
insightful, had a higher mental capacity, and were intellectually more adaptable than the average adult. Individuals who scored low (3.5 or below) on Factor B had a lower mental capacity and were less able to handle abstract problems than the average adult.

Superintendents from large school districts obtained a mean score of 7.13, which was in the high average range, on Factor B. This suggested that superintendents from large school districts were more abstract thinking and more intellectually adaptable than the average adult. The difference, however, was not analyzed to determine if it was statistically significant.

Superintendents from small school districts obtained a mean score of 6.20 on Factor B. This was within the average range when compared to the general adult population.

A comparison of Factor B scores of superintendents from large and small school districts resulted in a T distribution factor of 2.580 which was significant at the .01 level of confidence. This suggested that superintendents of large school districts were more insightful, had a higher mental capacity, and were intellectually more adaptable than superintendents from small school districts.
Research Hypothesis 2 was therefore accepted because there was a significant difference between the mean scores on Factor B, Ability to Discern Relationships, for superintendents of large and small school districts.

RESEARCH HYPOTHESIS 3.

There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor C, Adaptation to the Environment, of the 16PF; using a significance level of .05.

Factor C measured emotional stability or what was regarded as ego strength. A person with low ego strength was expected to have difficulty adjusting to life on many fronts. Cattell (1957) indicated that a person with a low Factor C score was emotional, dissatisfied, immature, impatient, changeable and anxious while a person with a high Factor C score was emotionally stable, realistic about life, steadfast, calm, patient and dependable. This factor dealt with the ability to express impulses well at a given time.

Superintendents from large school districts obtained a mean score of 7.27, which was in the high average range, on Factor C. This suggested that superintendents from large school districts were more emotionally stable and better able to adapt to changes in the environment than the average
adult. The difference, however, was not analyzed to determine if it was statistically significant.

Superintendents from small school districts obtained a mean score of 6.07 on Factor C. This indicated that superintendents of small school districts were within the average range of the adult population in terms of ego strength, emotional maturity and adaptation to the environment.

A comparison of Factor C scores of superintendents from large school districts and superintendents from small school districts resulted in a T distribution factor of 2.290 which was significant at the .025 level of confidence. This suggested that superintendents from large school districts were more emotionally mature, more calm, and more self-controlled than superintendents from small school districts. Superintendents from large school districts exhibited a higher capacity, than superintendents from small school districts, to express available emotional energy along integrated channels as opposed to impulsive channels.

Research Hypothesis 3 was accepted because there was a significant difference between the mean scores of superintendents from large and small school districts for Factor C, Adaptation to the Environment.
RESEARCH HYPOTHESIS 4.

There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor L, Suspiciousness, of the 16PF, using a significance level of .05.

Factor L measured the degree to which one identified with others. This did not mean merely close friends or immediate kin but extended to the human race in general. Persons who scored high (7.5 or above) on Factor L were oppositional, found it difficult to endure human frailties, were antagonistic and quick to take offense, and were suspicious, jealous and withdrawn. Persons who scored low (3.5 or below) on Factor L felt at one with their fellow humans. They were trustful, understanding, composed and socially at home with others.

Superintendents from large school districts obtained a mean score of 4.30 on Factor L. This score was within the average range and indicated that there was no important difference in the degree to which superintendents from large districts and the average adult felt identified with others.
Superintendents from small school districts obtained a mean score of 5.03 on Factor L. This score was within the average range and indicated that there was no important difference in the degree to which superintendents from small school districts and the average adult felt identified with others.

A comparison of Factor L scores of superintendents from large school districts and superintendents from small school districts resulted in a T factor of 1.391 which was not significant at the .05 level of confidence established for the study.

Research Hypothesis 4 was rejected because there was no significant difference between the mean scores of superintendents from large districts and small school districts for Factor L, Suspiciousness.

RESEARCH HYPOTHESIS 5.

There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor N, Shrewdness, of the 16PF; using a significance level of .05.

Factor N measured the socially important personality trait of poise or sophistication. Factor N represented the social mask people donned in order to present an image designed to invoke the kind of responses they desired from
others. Persons who scored high (above 7.5) on Factor N kept their social masks in place with most people and in most situations and were often seen as being socially aware and polished. Persons who scored low on Factor N (below 3.5) made little effort to hide their reactions and were often viewed as being genuine but socially clumsy.

Superintendents from large school districts obtained a mean score of 5.17 on Factor N. This was within the average range and indicated that superintendents from large school districts were no more or less shrewd than the average adult.

Superintendents from small school districts obtained a mean score of 5.93 on Factor N. This was within the average range and indicated that they were no more or less shrewd than the average adult.

A comparison of Factor N scores of superintendents from large and small school districts resulted in a T distribution factor of 1.462 which was not significant at the .05 level of confidence established for the study.

Research Hypothesis 5 was rejected because there was no significant difference between the mean scores of superintendents from large and small school districts for Factor N, Shrewdness.
RESEARCH HYPOTHESIS 6.

There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor Q1, Orientation Toward Change, of the 16PF; using a significance level of .05.

Factor Q1 measured one’s psychological orientation towards change. Individuals who scored high (above 7.5) on this dimension tended to be analytic, liberal and innovative. They trusted logic rather than feelings and preferred to break with established ways of doing things. High Q1 individuals were often seen as the most effective problem solvers in a group but were not necessarily seen as the best-liked group leaders. A person who scored low (below 3.5) on Q1 tended to be conservative, respecting of established ideas, cautious and compromising in regard to new ideas and tended to oppose and postpone change.

Superintendents from large school districts obtained a mean score of 6.00 on Factor Q1. This indicated that superintendents from large school districts were average in their orientation toward change when compared to the general population.
Superintendents from small school districts obtained a mean score of 4.83 on Factor Q1. This indicated that superintendents from small school districts were average in their orientation toward change when compared to the general adult population.

A comparison of Factor Q1 scores of superintendents from large and small school districts resulted in a T distribution factor of 2.686 which was significant at the .01 level of confidence. This indicated that superintendents of large school districts were more open to change, analytic, liberal and innovative than were superintendents from small school districts.

Research Hypothesis 6 was accepted because there was a significant difference between the mean scores on Factor Q1, Orientation Toward Change, for superintendents of large and small school districts.

RESEARCH HYPOTHESIS 7.

There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor Q4, Tension, of the 16PF; using a significance level of .05.
Factor Q4 measured what was often referred to as nervous tension, those unpleasant feelings that accompanied autonomic arousal. A person who scored high (above 7.5) on Q4 was characteristically tense, volatile and easily irritated by small things. An individual who scored low (below 3.5) on Q4 was characterized as being relaxed, tranquil and composed.

Superintendents from large school districts obtained a mean score of 4.87 on Factor Q4. This suggested that they were no more or less tense or relaxed than the average adult.

Superintendents from small school districts obtained a mean score of 5.55 on Factor Q4. This indicated that they were no more or less tense or relaxed than the average adult.

A comparison of Factor Q4 scores of superintendents from large and small school districts resulted in a T distribution factor of 1.342 which was not significant at the .05 level of confidence established for the study.

Research hypothesis 7 was rejected because there was no significant difference between the mean scores of superintendents from large and small school districts for Factor Q4, Tension.
OTHER FINDINGS

The findings indicated that there was also a significant difference between the personality characteristics of superintendents from large and small school districts on Factor I, Emotional Sensitivity.

Factor I measured the tendency to respond to circumstances or ideas either with feeling or thinking. Individuals who scored high (above 7.5) on Factor I were seen as being attention seeking, insecure, gentle, aesthetically fastidious, and relying on their empathetic understanding to make evaluations. Individuals who scored low (below 3.5) on Factor I were seen as being practical, unsentimental, self-reliant, accepting of the harsh realities of life, and were typically unindulgent toward both themselves and others.

Superintendents from large school districts obtained a mean score of 6.00 on Factor I. This was in the average range and suggested that they were no more or less emotionally sensitive than the average adult.

Superintendents from small school districts obtained a mean score of 4.87 which was in the average range when compared to the general adult population. This suggested that superintendents from small school districts were no more or less emotionally sensitive than the average adult.
A comparison of Factor I scores of superintendents from large and small school districts resulted in a $T$ distribution factor of 2.226 which was significant at the .025 level of confidence. This indicated that superintendents from small school districts were more practical, unsentimental, and unindulgent than superintendents from large school districts.

Table 6 represents observed mean scores obtained by superintendents of large and small school districts on each of the primary factors of the 16PF, and the associated $T$ test distribution values for the comparisons of each factor.
### Table 6

**Comparison of Raw Score Means of Personality Factors for Superintendents of Large and Small School Districts**

<table>
<thead>
<tr>
<th>16PF Factor</th>
<th>Mean Score</th>
<th>Mean Score</th>
<th>T Dist.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7.43</td>
<td>7.37</td>
<td>.167</td>
</tr>
<tr>
<td>B</td>
<td>7.13</td>
<td>6.20</td>
<td>2.580 **</td>
</tr>
<tr>
<td>C</td>
<td>7.27</td>
<td>6.07</td>
<td>2.290 *</td>
</tr>
<tr>
<td>E</td>
<td>5.60</td>
<td>5.57</td>
<td>.059</td>
</tr>
<tr>
<td>F</td>
<td>4.93</td>
<td>5.33</td>
<td>.907</td>
</tr>
<tr>
<td>G</td>
<td>6.03</td>
<td>5.77</td>
<td>.556</td>
</tr>
<tr>
<td>H</td>
<td>5.97</td>
<td>5.60</td>
<td>.752</td>
</tr>
<tr>
<td>I</td>
<td>6.00</td>
<td>4.87</td>
<td>2.226 *</td>
</tr>
<tr>
<td>L</td>
<td>4.30</td>
<td>5.03</td>
<td>1.391</td>
</tr>
<tr>
<td>M</td>
<td>5.37</td>
<td>5.00</td>
<td>.659</td>
</tr>
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<td>N</td>
<td>5.17</td>
<td>5.93</td>
<td>1.462</td>
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<tr>
<td>O</td>
<td>4.60</td>
<td>5.40</td>
<td>1.691</td>
</tr>
<tr>
<td>Q1</td>
<td>6.00</td>
<td>4.83</td>
<td>2.686 **</td>
</tr>
<tr>
<td>Q2</td>
<td>5.17</td>
<td>5.63</td>
<td>.901</td>
</tr>
<tr>
<td>Q3</td>
<td>5.83</td>
<td>5.43</td>
<td>.783</td>
</tr>
<tr>
<td>Q4</td>
<td>4.87</td>
<td>5.55</td>
<td>1.342</td>
</tr>
</tbody>
</table>

Large Districts N = 30  
Small Districts N = 30  
Degrees of freedom = 29  
* Significant at the .025 level  
** Significant at the .01 level
This chapter presented, in narrative and visual form, the findings of the data collected during the research. Included in the presentation was an analysis of the respondent's demographics, a personality profile for superintendents from large school districts, a personality profile for superintendents from small school districts, and an analysis of the comparison of the two profiles.
CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

PROBLEM

The purpose of this investigation was to use the 16PF to establish personality profiles for superintendents from selected large and small public school districts within the western United States. Furthermore it was the purpose of this investigation to determine whether any significant differences existed between the two profiles. Specifically the study sought to answer the following questions:

1. What was the 16PF personality profile of superintendents from selected large (10,000+ students) public school districts from the western United States?

2. What was the 16PF personality profile of superintendents from selected small (less than 2,500 students) public school districts from the western United States?

3. What were the significant differences, if any, between the two groups of superintendents using the T test as a means of analysis?
METHODOLOGY

The sample population came from both rural and urban settings of the eleven western states of Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Montana, Wyoming, Colorado, and New Mexico. The population selected consisted of superintendents of large and small public school districts that had a kindergarten through twelfth grade enrollment.

An education directory was obtained from the state department of education for each of the eleven states. School districts in each state were then identified according to pupil population served and only public school districts with enrollments in grades K-12 were considered. The public school districts with K-12 pupil enrollment were then classified according to size (total pupil enrollment) and only those meeting the definition of a "large" school district (10,000+ students) or a "small" school district (less than 2,500 students) were considered for inclusion in the study. Sixty superintendents, thirty from large school districts and thirty from small school districts, were selected for inclusion in the study. No attempt was made to randomize or select a representative sample.
Each superintendent who participated in the study completed a 16PF questionnaire. The T test was used to determine if any significant differences existed between the personality profiles of the two groups of superintendents. Figures and tables were developed and presented indicating the results of the findings. The .05 level of confidence was used to determine significant differences.

SUMMARY AND CONCLUSIONS

Several conclusions were evident from the analysis of the data generated by the study.

1. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor B, Ability to Discern Relationships, of the 16PF.

The significantly higher score on Factor B, for superintendents of large school districts, implied that they were more abstract thinking, more intelligent, and show better judgment than superintendents from small school districts.

2. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor C, Adaptation to the Environment, of the 16PF.
The significantly higher score on Factor C, for superintendents from large school districts, indicated that they were more calm, more emotionally stable and mature, and less affected by feelings than superintendents from small school districts.

3. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor I, Emotional Sensitivity, of the 16PF. The significantly higher score on Factor I, for superintendents from large school districts, suggested that they were more tender-minded, more sensitive, and more sentimental than superintendents from small school districts.

4. There was a significant difference between the mean score of superintendents from large public school districts and the mean score of superintendents from small public school districts on Factor Q1, Orientation Toward Change, of the 16PF. The significantly higher score on Factor Q1, for superintendents from large school districts, indicated that they were more experimenting and more open to change, less conservative, and less tradition bound than superintendents from small school districts.
The above conclusions were reached on the basis of how likely was the observed outcome. The term "significant" was applied to results where the probability of chance was less than the .05 level of confidence (p < 0.05), which means that if the study were repeated 100 times we would expect to observe these results less than five times due to chance.

In regard to Factor B, Ability to Discern Relationships, it was determined that the observed results could have occurred by chance with a probability of less than one time out of 100. Since Factor B measured intelligence, which was regarded as an ability and not a temperament, educational factors may have had an effect on the significance of the differences observed.

It was determined that Factor C, Adaptation to the Environment, was significant at the .025 level of confidence (p < 0.025), which meant that we would expect to observe these results less than twenty-five times out of 1,000 due to chance. Factor C measured ego strength and emotional maturity which was considered to be a temperament. Temperaments were considered to have an inherent basis, but may have been affected in some degree by life experiences.
Factor I, Emotional Sensitivity, measured the tendency to respond to circumstances or ideas either with feeling or thinking. The observed results were significant at the .025 level of confidence (p < 0.025), which meant that we would expect to observe these results less than twenty-five times out of 1000 due to chance. Factor I was considered to be a temperament but may have been affected in some degree by life experiences.

It was determined that the observed results in regard to Factor Q1, Orientation Toward Change, would have occurred by chance less than one time out of 100 (p < 0.01). Factor Q1 measured psychological orientation toward change which was considered a temperament but may have been affected in some degree by life experiences.

RECOMMENDATIONS FOR FURTHER STUDY

It was recommended that further investigation be conducted in the following areas:

1. Conduct a similar study using an alternate form of the 16PF.

2. Conduct a similar study expanding the sample population to include superintendents from medium sized school districts, those with a pupil population of 2,500 to 10,000 students, to see if profiles differ from those of superintendents from large and small school districts.
3. Conduct a similar study with the sample population drawn from other geographic areas within the United States to determine if the personality profiles vary according to geographic area.

4. Conduct a similar study using another instrument to assess the personality characteristics.

5. Conduct a similar study using a representative sample of school district superintendents.
APPENDIX A

Bi-polar Descriptions of the 16PF
FACTOR A
SOCIAL ORIENTATION
Cool vs. Warm
Critical vs. Good Natured
Aloof vs. Attentive to People
Distrustful vs. Trustful

FACTOR B
ABILITY TO DISCERN RELATIONSHIPS
Concrete Thinking vs. Abstract Thinking
Less Intelligent vs. More Intelligent
Persevering vs. Quitting
Showing Poor Judgment vs. Showing Better Judgment

FACTOR C
ADAPTATION TO THE ENVIRONMENT
Affected by Feelings vs. Emotionally Stable
Easily Perturbed vs. Calm
Emotional when Frustrated vs. Emotionally Mature
Worrying vs. Serene
FACTOR E
DOMINANCE
Submissive vs. Dominant
Dependent vs. Independent-Minded
Conforming vs. Rebellious
Easily Led vs. Competitive

FACTOR F
IMPULSIVITY
Sober vs. Enthusiastic
Introspective vs. Talkative
Restrainted vs. Impulsive
Concerned vs. Happy-go-lucky

FACTOR G
GROUP CONFORMITY
Expedient vs. Conscientious
Disregards Rules vs. Rule-bound
Frivolous vs. Responsible
Self-indulgent vs. Emotionally Disciplined
FACTOR H
TIMIDITY AND BOLDNESS IN HUMAN RELATIONSHIPS

Shy vs. Bold
Restrained vs. Impulsive
Careful vs. Carefree
Threat-sensitive vs. Can Take Stress

FACTOR I
EMOTIONAL SENSITIVITY

Tough-minded vs. Tender-minded
Cynical vs. Indulgent to Self and Others
Self-reliant vs. Insecure, Dependent
Unsentimental vs. Expecting Affection and Attention

FACTOR L
SUSPICIOUSNESS

Trusting vs. Suspiciousness
Open vs. Withdrawn
Pliant to Change vs. Dogmatic
Conciliatory vs. Irritable
FACTOR M
IMAGINATION
Practical vs. Imaginative
Conventional vs. Unconventional
Lacks Creativity vs. Creative
Practical Judgment vs. Frivolous

FACTOR N
SHREWDNESS
Forthright vs. Shrewd
Emotionally Involved vs. Emotionally Detached
Socially Clumsy vs. Socially Alert
Content vs. Ambitious

FACTOR O
INSECURITY
Self-assured vs. Apprehensive
Self-confident vs. Worrying
Free of Guilt vs. Guilt-prone
Complacent vs. Troubled
FACTOR Q1
ORIENTATION TOWARD CHANGE

Conservative vs. Experimenting
Tradition-bound vs. Open to Change

FACTOR Q2
SELF-SUFFICIENCY

Group Oriented vs. Self-sufficient
Follower vs. Prefers Own Decisions

FACTOR Q3
SELF-DISCIPLINE

Undisciplined Self-conflict vs. Controlled
Follows Own Urges vs. Exacting Will Power

FACTOR Q4
TENSION

Relaxed vs. Tense
Tranquil vs. Frustrated
APPENDIX B

Letter of Introduction
Dear Superintendent:

I need your help! I am a doctoral candidate at the University of Nevada, Las Vegas. Under the direction of my advisor, Dr. George J. Samson, I intend to research the personality characteristics of public school superintendents in the western United States. Would you please take a minute of your time to respond to the following items and return this form to me in the enclosed postage paid envelope:

1) Name: _________________________________________
2) Age: _______
3) Sex: Male Female (circle one)
4) Highest degree earned: ______________________
5) Number of years as a superintendent of schools: _____________
6) Number of years in your current position, if different than #5: _____________
7) Total pupil enrollment (K-12) of your district: _____________
8) Would you be willing to take 20-30 minutes of your time to complete a personality questionnaire? Yes No (circle one)
If you answered yes to #8, thank you very much. You will soon receive a personality questionnaire in the mail.

I request your cooperation in advance primarily to hold down the cost of mailing a large number of inventories to people who are not disposed to become participants in the study.

The code you will find on the instrument you receive is only for bookkeeping purposes. All demographics and responses will be held in strict confidence by the researcher and will not permit identification of any individual participant.

I thank you in advance for your cooperation, and I will provide to all participants a summary of the findings upon the completion of my study.

Sincerely,

Craig S. Babcock
APPENDIX C

Survey Cover Letter to Participants
Dear Superintendent:

Thank you for participating in my research. Enclosed you will find a copy of the 16PF, a separate answer sheet, and an envelope for returning the enclosed materials.

Please read and follow the directions on the cover of the test booklet. Please mark your answers on the enclosed separate answer sheet. Do not, however, write your name or any other information on the answer sheet. When you have finished, PLEASE RETURN THE TEST BOOKLET AND COMPLETED ANSWER SHEET in the enclosed postage paid envelope.

Again, I would like to offer my sincere thank you for taking time out of your busy schedule to assist me with my research.

Sincerely,

Craig S. Babcock
APPENDIX D

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REFERENCES


IPAT, Institute for Personality and Ability Testing, Inc.
(1972). *Tabular supplement no. 2 to the 16PF Handbook.*
Champaign, Illinois: IPAT.


Lawrence, C. J. (1968). *Personality characteristics of school superintendents who implement innovation in the public schools.* (Doctoral dissertation, Utah State University).


(Doctoral dissertation, University of South Carolina).