1981

Selected Personality Constructs as Correlates of Personnel Appointment, Appraisal, and Mobility in Seventh-day Adventist Schools

Merle A. Greenway
Andrews University

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SELECTED PERSONALITY CONSTRUCTS AS CORRELATES OF
PERSONNEL APPOINTMENT, APPRAISAL, AND MOBILITY IN SEVENTH-DAY ADVENTIST SCHOOLS

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SELECTED PERSONALITY CONSTRUCTS AS CORRELATES OF
PERSONNEL APPOINTMENT, APPRAISAL, AND MOBILITY
IN SEVENTH-DAY ADVENTIST SCHOOLS

A Dissertation
Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

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Merle A. Greenway

APPROVAL BY THE COMMITTEE

Chairman: Lyndon G. Furst
Dean, School of Graduate Studies

Member: Millie U. Youngberg

Member: Reger C. Smith

Member: Cedric C. Ward

April 29, 1981

Date approved

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ABSTRACT

SELECTED PERSONALITY CONSTRUCTS AS CORRELATES OF PERSONNEL APPOINTMENT, APPRAISAL, AND MOBILITY IN SEVENTH-DAY ADVENTIST SCHOOLS

by

Merle A. Greenway

Chairman: Lyndon G. Furst
Title: SELECTED PERSONALITY CONSTRUCTS AS CORRELATES OF PERSONNEL APPOINTMENT, APPRAISAL, AND MOBILITY IN SEVENTH-DAY ADVENTIST SCHOOLS

Name of researcher: Merle A. Greenway

Name and degree of faculty advisor: Lyndon G. Furst, Ed.D.

Date completed: April 1981

Problem

Despite tentative postulations and explorations of the person/job interaction, the specific relationships between personality and occupational behavior are not clearly understood. In particular, the relationships between human temperament and various aspects of personnel administration in an educational setting are generally unknown. The purpose of this study was to profile the temperament traits of professional educators in the Seventh-day Adventist school system, grouped on the basis of occupationally relevant selection variables; and to investigate the role of personality as it relates to personnel appointment, appraisal, and mobility.
Method

A demographic questionnaire and the Temperament Inventory were administered to 486 teachers, teacher/principals, principals, supervisors, and superintendents in nine local conference school systems of the Seventh-day Adventist Church. Phlegmatic, sanguine, choleric, and melancholy traits were profiled for selected subgroups and statistically compared using Cattell's Coefficient of Pattern Similarity. Significant correlations were subjected to graphic comparisons as well.

Results

Significant similarities and/or dissimilarities in personality emerged when profiles were contrasted on the bases of sex, professional position, perceived recruiter, preferred school size, rated competence, advancement status, and records of job stability. No significant results were observed when profiles were compared on the bases of geographic region, years of experience, assigned grade levels, assigned school size, and administrator/employee similarity.

Conclusions

Analyses of the data prompted eighteen conclusions relative to the purpose for which the study was conducted. Each was generalized only to the population described for the study (i.e., K-10 Seventh-day Adventist educators of non-black conferences in North America).

1. Adventist educators collectively exhibit a choleric/phlegmatic personality.

2. Male and female educators collectively differ in personality.
3. The population is geographically and experientially heterogeneous.

4. The population is highly mobile.

5. Teaching and non-teaching personnel differ significantly in personality.

6. Personality is significantly correlated with professional position.

7. No meaningful relationship exists between personality and years of experience.

8. No meaningful relationship exists between the personalities of educators and the personalities of the individuals responsible for hiring them.

9. The personalities of educators who strongly perceive that "the Lord" recruited them differ significantly from the personalities of individuals recruited by men.

10. No meaningful relationship exists between the personalities of teachers and the grade levels to which they are assigned.

11. No meaningful relationship exists between the personalities of educators and the size of school to which they are assigned.

12. The personalities of educators expressing a preference for one-teacher schools differ significantly from the personalities of educators preferring larger schools.

13. Demands for personnel in one-teacher schools clearly exceed the supply of teachers preferring such placement.

14. Personality is significantly correlated with levels of perceived competence.
15. No meaningful relationship exists between the personalities of educators judged "most competent" and the personalities of the supervisors passing judgment.

16. The personalities of female educators are significantly correlated with their opportunities for advancement.

17. No meaningful relationship exists between the personalities of educators selected for advancement and the personalities of administrators making the selections.

18. The personalities of highly stable educators differ significantly from the personalities of highly mobile educators.
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DEDICATION

These pages are dedicated to:

ADVENTIST EDUCATORS -- a special group of special people with a very special mission; and

ADVENTIST EDUCATION -- a special profession with special challenges and a special Leader, our Lord, by and through Whom success is assured.
ACKNOWLEDGMENTS

A project such as this can only be successful with the help of many—many heads, many hearts, many hands. Constructive criticism, continual encouragement, and cooperative clerical assistance have combined to produce these results.

The list of names is long and the risk of overlooking someone great, so a categorical listing must suffice. Thank you, thank you, thank you to:

my PROFESSORS, who patiently instructed;
my COMMITTEE, which patiently guided;
my CHURCH, which patiently supported;
my EMPLOYERS, who patiently believed;
my COLLEAGUES, who patiently participated;
my FRIENDS, who patiently tolerated;
my FAMILY, which patiently waited; and
my WIFE, who patiently wondered.

Your contributions, though not memorialized, will be long remembered and appreciated!
CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

The K-12 educational system of the Seventh-day Adventist Church in North America is experiencing marked organizational change. There is a publicly declared emphasis on increased systematization of all aspects of the program—curriculum and instruction, facilities planning and management, fiscal control, administrative structure, and personnel practices—with the expressed goal of quality system-wide performance (Hirsch, 1977).

In the realm of personnel administration, notable progress has been realized. Rationally defensible policies now exist governing professional certification, remuneration, and contractual performance. The bases for denominational "tenure" and employee dismissal are more clearly specified now than hitherto (General Conference, 1978). Unfortunately, however, published statements designed to address questions of personnel appointment (including recruitment and assignment), performance appraisal, and mobility (transfer and turnover) are conspicuously brief and inadequate.

The recruitment of personnel for Adventist schools remains a haphazard process at best. True enough, a widely accepted policy does exist which is designed to preserve ethical practices when engaged in "sheep-stealing" from one administrative unit to another (General Conference, 1978). The questions of responsibility and authority in

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personnel selection, however, are still addressed in a varied and imprecise manner; while systematic attempts to evaluate the efficacy of denominational recruitment practices appear nonexistent.

Employee contracts within the Church organization occasionally deal with questions of assignment, though briefly and nebulously. At least one contract suggests that "assigned curricular and extracurricular duties shall not be of excessive nature so as to imperil the employee's efficiency or health" (Wyoming Conference, 1978a); yet it says nothing of the specifics of such assignments. Indeed, the assignment of personnel is one privilege specifically reserved to the employer by many denominational policy manuals (e.g., Central Union Conference, 1979a; General Conference, 1978); though these same documents itemize few, if any, of the factors to be considered when assignments are contemplated.

In the arena of performance appraisal, some progress has been noted. Instruments do exist in many of the system's administrative districts (conferences) which are specifically designed for personnel evaluation (e.g., Central Union Conference, 1968; Wyoming Conference, 1978b), but interviews with teachers confirm that these devices see little actual use. The relevance of a systematic appraisal program has been argued in denominational literature (Greenway, 1978), yet little of significance has been achieved. Performance appraisal remains, all too frequently and for sundry reasons, a laissez-faire process.

Little hard data are available with respect to personnel movement within the Adventist educational system. The "teaching procession" described by Elsbree (1928) is by no means restricted to the
public sector, but has become intuitively apparent as the "moving van syndrome" in the Church as well (Greenway, 1974). Kuhn (1978) documented a 38 percent composite mobility rate in Canadian Adventist schools for the period 1970-78, while studies by Hehling (1972) and Noble (1965) reported annual turnover rates of 25-40 percent in denominational schools within the United States.

Personnel appointment, appraisal, and mobility are among the most immediate and pressing issues faced by Adventist educators. Vast resources, both financial and human, are expended each year in dealing with these problems. The rapid growth of the Church has precipitated an increased demand for competent, professional personnel, such that traditional administrative practices are no longer viable (General Conference, 1979). If the denomination's school system is to remain strong and effective, personnel policies must be adjusted in accordance with the unique qualities of an "employees' market."

Industrial personnel managers and corporation executives have long recognized the importance of careful, efficient procedures in the success formulae of their organizations. Theirs has been a pragmatic stance—poor personnel practices result in resource expenditures detrimental to the very existence of a company (Schultz, 1973).

In recent years, educational administrators, particularly those in the public sector, have emulated industry's lead; and have begun to examine the impact of personnel practices upon the quality of instruction, job satisfaction, employee morale, resource allotments, and general organizational effectiveness (Castetter, 1971). Studies have sought to correlate a variety of factors with measures of teacher satisfaction and performance (e.g., Holdaway, 1978; Lortie, 1975;
Sergiovanni, 1967), with the hope that "educated guesses" might be made which would prove useful in personnel-related decision making. There has been only limited success. Little is known "for sure" with respect to the questions at hand (Lang, 1968), but a curious pattern is evident. Regardless of the proposals advanced—improved facilities, better salaries, more desirable working conditions, increased benefits, ad infinitum—more money is obliquely viewed as the prerequisite to organizational success.

The notion that increased financial expenditures are necessary for effective personnel administration in the Seventh-day Adventist educational program is a questionable one. A pronounced, widespread commitment to the unique philosophy and objectives of Adventist education is affirmed by denominational employees (Stone, 1970). Yet the questions still remain: What factors have a direct impact on personnel processes in the Adventist school system? What can be done to improve the activities of personnel selection, assignment, evaluation, and transfer so that improved morale, job performance, and employee stability will result?

The doctor/patient analogy may be appropriate in addressing these questions. Before effective treatment can be administered, the patient and his symptoms must be understood; and there is abundant evidence to suggest that personality factors are of crucial significance in an attempt to understand a vocationally homogenous population. Numerous psychologists contend that certain personality traits, namely those collectively identified as temperaments, are largely inherited, thus relatively stable; and that an individual's temperament affects all aspects of his life and work (e.g., Cartwright, 1974; Gergen &
Marlowe, 1970). Holland (1973) and Super (1957) have provided further evidence which magnifies and strengthens the link between personality and vocational behavior, and have suggested the importance of temperament in understanding the broader concepts of employee satisfaction and morale.

Statement of the Problem

Despite tentative postulations and explorations of the person/job interaction, however, the specific relationships between personality and occupational behavior have not been fully developed. More specifically, the relationship between human temperament and selected aspects of personnel appointment, appraisal, and mobility in an educational setting are unknown.

Purpose of the Study

The purpose of this study, then, was to profile the temperament traits of professional educators in the Seventh-day Adventist school system, grouped on the basis of occupationally relevant selection variables; and to investigate the role of personality as it relates to various aspects of personnel administration, namely appointment, appraisal, and mobility. Corollary purposes were fivefold, as outlined below:

1. To focus attention upon certain problems of personnel administration as they exist in the Seventh-day Adventist school system;
2. To expand upon the work of other researchers (i.e., Hehling, 1972; Kuhn, 1978; Noble, 1965) in seeking explanations for special problems of personnel turnover in Adventist schools;
3. To increase denomination-wide understanding of the unique
personality characteristics of educational employees;

4. To suggest implications for administrative practice which were consistent with the findings of the study; and

5. To propose additional avenues of research as might be prompted by the conclusions of the study.

**Importance of the Study**

The importance of the study was perceived as relative to its unique nature and the purposes outlined above. As an apparently first venture in the temperament assessment of Seventh-day Adventist educators, the study potentially offered evidence which could be used, in part, to address the following issues:

1. **The significance of personality in the emergence and resolution of personnel problems.** It is widely believed and expressed among denominational employees that "personality clashes" account for a significant percentage of the personnel crises dealt with by school administrators (e.g., Kuhn, 1978). Is this really the case?

2. **The value of personality assessment in recruiting.** Some Adventist recruiters screen applicants, albeit subjectively, on the basis of personality, while others do not. Can either approach be justified?

3. **The role of personality in job performance and employee satisfaction.** Teacher/administrator training programs, both pre-service and in-service, seek to improve on-the-job performance and personal satisfaction. Should adjustments be made in program content or methodology to accommodate personality factors?

4. **The importance of personality in theory development and**
administrative practice. A true "theory" of Adventist educational administration is not now identifiable in the literature. Might the findings of this study have implications for the development and implementation of such theory?

5. **The impact of personality on effective, efficient use of organizational resources.** Laissez-faire decision making is the practice in many Adventist schools. Resources, limited though they be, are not always expended in wise, carefully considered ways. Are adjustments, either major or minor, suggested by the results of the study—adjustment which will result in more effective utilization of Church resources?

All organizations experience either growth or decline (Miles, 1975). It is generally conceded that maintenance of the status quo is neither possible nor desirable. The Seventh-day Adventist Church has publicly declared its interest in active, perpetual vitality (e.g., Hirsch, 1977). That growth is only attainable through a search for answers to perplexing issues. This study constitutes one small step in that search.

**Hypotheses Examined**

The hypotheses examined in this study were nine in number, categorized as follows: (1) hypotheses related to personnel appointment; (2) hypotheses related to personnel performance appraisal; and (3) hypotheses related to personnel mobility.

**Hypotheses related to personnel appointment**

1. A relationship exists between the personalities of educators and the personalities of the administrators responsible for hiring
them.

2. A relationship exists between the personalities of teachers and their grade level assignments.

3. A relationship exists between the personalities of educators and the size of school to which they are assigned.

Hypotheses related to personnel performance appraisal

4. A relationship exists between the personalities of educators and their perceived levels of competence.

5. A relationship exists between the personalities of educators judged "most competent" and the personalities of the supervisors or administrators passing judgment.

6. A relationship exists between the personalities of educators and their opportunities for advancement.

7. A relationship exists between the personalities of educators chosen for advancement and the personalities of the administrators responsible for choosing them.

Hypotheses related to personnel mobility

8. A relationship exists between the personalities of educators and their records of job stability.

9. A relationship exists between the personalities of school system administrators and the rates of personnel turnover in the organizations which they administer.

Definitions of Terms

A number of contextually specific terms were used throughout the development of this study. In an effort to facilitate reader
understanding, the following definitions are prescribed:

**Advancement** refers to the intra-organizational reassignment of personnel to positions of greater responsibility and/or authority. It suggests a kind of upward mobility within the organizational structure.

**Appointment** encompasses the selection of personnel from all available recruits and the assignment or reassignment of employees to specific responsibilities, particularly with respect to school size and grade level.

**Appraisal** is an evaluation activity, most often subjective, in which the performance of personnel is scrutinized. In this study, appraisal refers to scaled judgments, by supervisory personnel, of the professional competence of subordinates.

The **choleric** temperament is one of four personality constructs measured by the Temperament Inventory and subsumes aggressive, bold, energetic, and insensitive characteristics.

A **conference** is an administrative unit of the Seventh-day Adventist Church. Local conferences encompass a number of geographically related schools and churches; and, in most instances, the boundaries of local conferences are congruent with state lines. Union conferences are comprised of several local conferences. The nine union conferences in the United States and Canada are further organized as the North American Division of the General Conference of Seventh-day Adventists.

The term **construct** implies a theoretical and semantic representation of observed phenomena. The four-temperament view of personality as modified by Blitchington and Cruise (1979; Cruise, Blitchington & Futcher, 1980) provided the constructual basis for this study.

**Job stability** refers to the inclination of employees to remain
in their present occupational positions--the antonym of mobility.

The melancholy temperament is one of four personality constructs measured by the Temperament Inventory and subsumes emotional, creative, moody, sensitive, and perfectionistic characteristics.

Mobility is the opposite of job stability. It suggests the rate of geographical movement by personnel within an organization.

Personality is "an abstraction or hypothetical construction from or about behavior" (Mischel, 1968, p. 4); and in this study refers to that hypothetical construction delineated by Blitchington and Cruise (1979; Cruise, Blitchington & Futcher, 1980). The personality of an individual, then, is evidenced in his/her temperament; and that personality is a unique combination of phlegmatic, sanguine, choleric, and melancholy tendencies.

Personnel include all professionally certificated employees--teachers, principals, supervisors, and superintendents--in the population described for this study.

The phlegmatic temperament is one of four personality constructs measured by the Temperament Inventory and subsumes diplomatic, calm, flexible, and bland characteristics.

A principal performs administrative duties at the local school level.

The sanguine temperament is one of four personality constructs measured by the Temperament Inventory and subsumes sociable, carefree, distractible, cheerful, and unorganized characteristics.

Three levels of school system organization exist in the North American Seventh-day Adventist educational program. The term may refer to a local conference program, a union-wide system, or the entire K-12
organization of the North American Division. An attempt is made to assure contextual specificity with each use of the term.

*Selection* includes those processes related to the identification and choice of preferred employees when job vacancies occur.

The *Seventh-day Adventist Church* is a specific Christian denomination which operates a worldwide system of churches, schools, medical institutions, and publishing houses. In the context of this study, the Church is represented by the North American Division of Seventh-day Adventists, with headquarters in Washington, D.C. Seventh-day Adventist schools are educational entities operated under Church auspices.

A *superintendent* is the chief administrator of a local or union conference school system.

A *supervisor* performs assigned duties at the local or union conference level, generally including classroom visitation and performance appraisal functions.

The term *teacher* designates a full-time professional employee whose primary responsibility is classroom instruction.

A *teacher/principal* is a local school administrator assigned regular classroom teaching duties. Teachers in one-teacher schools, despite periodic involvement in administrative tasks, are not considered teacher/principals in the context of this study.

The *Temperament Inventory* (TI) is an instrument designed by Cruise and Blitchington (1977; Blitchington & Cruise, 1979; Cruise, Blitchington & Futcher, 1980) to profile four dimensions of personality: phlegmatic, sanguine, choleric, and melancholy temperament traits.

*Turnover* describes the rate of geographical movement among personnel within a specified period of time.
Delimitations

This study was conducted in the nine-state area circumscribed by the Central and Lake Union Conferences of the Seventh-day Adventist Church. The Central Union Conference encompassed a five-state region: Colorado, Kansas, Missouri, Nebraska, and Wyoming. The Lake Union Conference is comprised of four states: Illinois, Indiana, Michigan, and Wisconsin.

A second delimitation was that of philosophical and doctrinal uniqueness. The study was intentionally restricted to the educational system operated by the Seventh-day Adventist Church, with the desire that subsequent findings might be of special interest and significance to Adventist administrators.

Delimitation number three excluded two local conferences from the sample. The Central States and Lake Region Conferences possess atypical geographic, organizational, and ethnic parameters, prompting their exclusion from the study.

The fourth delimitation confined the population and sample to those personnel employed in the K-10 educational program within each conference. Though twelve-grade academies (high schools) are located throughout each union territory, the administrative control of personnel functions within these institutions varies considerably, thus necessitating this restriction.

Subsequent to completion of the data collection process, the Central and Northern Union Conferences merged to become the Mid-America Union Conference of Seventh-day Adventists ("Two Unions Vote to Merge," 1980, p. 24). Iowa, Minnesota, North Dakota, and South Dakota, originally constituents of the Northern Union, were not included in this study.
Organization of the Study

Chapter I provides an introduction to the study, including a statement of the problem, the purposes and import of the project, a listing of the operational hypotheses, and definitions of terms. Also included are a summary of delimitations and an organizational outline of the dissertation in its entirety.

Chapter II contains a review of pertinent literature, including discussions of personality psychology as a general area of inquiry, the ramifications of vocational psychology and personnel management, and the assessment of personality—all in the context of the present study.

Chapter III describes the methodology employed in data collection and analysis. Descriptions of the population and sample, the instrumentation utilized, and the statistical procedures adopted are offered in some detail.

Chapter IV presents personality profiles of the major sample subgroups and analyses of the data in light of the hypotheses. Numerous tables and graphs summarize the findings.

Chapter V offers a summary of the results, suggests appropriate conclusions, and proposes additional avenues of research.
CHAPTER II

REVIEW OF LITERATURE

Everyone, it seems, is interested in everyone else—the qualities (real or imagined), the behaviors (welcome or unwelcome), the soma that in some way distinguishes one human being from another. And so it is that the literature pertaining to personality, both popular and scholarly, is almost incomprehensibly voluminous and varied.

This review makes no pretense of thoroughness in either content or scope. It does, however, provide a basic understanding of the structure and dynamics of personality, the potential interactions of man and his work environment, and a brief introduction to personality assessment—all in an attempt to synthesize the major concepts which, when clearly enunciated, provided the focal point for this study.

The Structure and Dynamics of Personality

When launching a discussion of personality, it seems imperative that a comprehensive definition of the term be provided. Such a task is more easily undertaken than accomplished, however, and there are numerous reasons for that difficulty.

As early as 1937, Allport assayed the available literature and concluded that then-current operational definitions of the term personality could be relegated to at least six distinct categories. From a simplistic view dominated by the role of external appearances ("mask"),
through more integrative and hierarchial definitions, to the omnibus conclusion that "personality is the sum total of the individual's inherited and acquired mental qualities" (Arndt, 1974, p. 7), personality was thus definable to suit the whims and contingencies of the moment. No wonder students of psychology began to plead for greater consensus. Meaningful, directional research was adjudged impossible in light of the vagaries in both definition and purpose.

A mutually acceptable definition of personality has remained the illusive dream. Theoretical and philosophical differences as well as practical considerations have, to a large degree, dictated that each student of personality, regardless of bias or persuasion, must adopt a definition suitable for his purpose and proceed from there (Byrne, 1974; Hall & Lindzey, 1957).

Preliminary to any such attempt, Mischel (1968) reminds researchers of the importance of distinguishing between personality and behavior. He suggests that personality consists of the "inferred, hypothesized, mediating internal states, structure, and organization of individuals" (p. 4); while behavior is simply an observable, measurable event. He cautions that traditional approaches to personality have often muted the distinctions between personality and behavior, because they have dealt primarily with "inferences about the individual's personality, focusing on behavioral observations as signs of underlying attributes" (p. 4).

The presumed futility of such a course has been eloquently argued, particularly by the layman. After all, he reasons, man is too complex to categorize and generalize from behavioral observations. Editorial tongue-lashings, hopefully tongue-in-cheek, but likely all
... Nothing raises eyebrows faster than the idea that science can find "laws" of human behavior. Human differences are too vast for generalizations that apply with any exactitude to individuals ("What Everybody Knows--Or Do They?" 1964, p. 43).

... the whole concept of behavioral science and practitioners thereof is hilarious. The expression itself is repellent, if not actually a contradiction of terms. If it was a science, how could it explain human behavior? It is was behavior, how could science help explain it? ... Nobody has measured people yet (McCabe, 1966, p. 20).

Inherent in the human race, however, and perhaps most apparent among those who possess an insatiable interest in "making sense out of the world" (Byrne, 1974, p. 4), is the desire to understand man's uniqueness, predict his actions, and subsequently control (in hopefully ethical and moral ways) the course of human interaction (Hamlyn, 1974). So personality psychologists, as notable examples of the "behavioral practitioners" so despised by McCabe (1966), have continued the exploration of human characteristics.

This search, when translated into hypotheses and methodologies, must be premised on at least two cardinal assumptions (Byrne, 1974): (1) "Behavior in a given stimulus situation is predictable if the relevant variables affecting the organism are known" (p. 17); and (2) "Science can investigate only operationally defined variables" (p. 30).

A review of personality literature reveals that, whether formally verbalized or not, these two assumptions have permeated nearly all facets of investigation. Some have argued that approaches premised on the first assumption are demeaning, in some degree, to the very nature of man (e.g., Allport, 1961; Rogers, 1959). Still others insist that the lawfulness apparent in the study of biological organisms is transmutable, in unique ways, to the human species (e.g., Eysenck,
1967; Skinner, 1971). Irrespective of the frequent and sometimes heated controversies, personality research has continued apace, and theoretical speculations are abundant, as are the methodological techniques employed.

Some approaches to personality

Schema for classifying multitudinous personality theories are legion. One such taxonomy, seemingly too simplistic when first examined and only poorly defined terminologically, has, in the literature, received rather widespread support. This approach dichotomizes all attempts to study human behavior and suggests that, in essence, the researcher must pursue his study with either a view toward the uniqueness of the individual or the speciality of the situation. This dichotomy is classified as one of "experiment" versus "correlation" (Cronbach, 1957), the "mind-in-general" versus the "mind-in-particular" (Allport, 1937), "situation" versus "disposition" (Blass, 1977)—and the list might go on.

The second view, that which purports that situational variables are primary determinants of behavior, receives support from Gestalt psychology and the postulates of behaviorism. Lewin's (1935, 1936) emphasis on the reality of the moment, the psychological lifespace of the individual, the Gestalt of man and environment, provided the launching ground for a subsequent focus on situational factors, with near total neglect of the human component (Blass, 1977).

It is doubtful that Lewin (1936) concurred with the imbalance that resulted. Behavior was, in his thought, dependent "upon the state of the person and at the same time upon the environment" (p. 36); and
it was indeed unfortunate that the human component was largely overlooked (cf., Blass, 1977; Heider, 1959).

The behaviorists, of course, jumped upon the same bandwagon, primarily because of their predilection for precisely observable and measurable events. A philosophic denial, at least in part, of the complex mental processes of the human being, and a desire to explain all behavior in easily quantifiable, transmittable ways, resulted in a predominant focus on environmental manipulation as a key to understanding human response (Blass, 1977). In sum, "classic, laboratory social psychology has generally ignored individual difference, choosing to consider subjects as equivalent black boxes or as two-legged (generally white) rats from the same strain" (Helmreich, 1975, p. 551).

Meanwhile, the first view, one in which unique personal qualities account for behavioral patterns, has not been totally neglected. Tyler (1963) reports that an interest in the unique characteristics of human beings is longstanding, and was, in fact, readily apparent in the earliest days of systematic behavioral research. Subsequently, such writers as Alker (1972), Allport (1937, 1961, 1966), Averill (1973), Bowers (1973), MacKinnon (1944), and Wachtel (1973) have joined the fray, speaking eloquently and articulately on behalf of the dispositional approach to behavior research. Bowers (1973) offers an especially sharp critique of the totally environment-centered view of personality, and develops clearly enunciated arguments in favor of a more individualistic, trait-oriented perspective.

Despite assertions that the "search for universal traits, or traits that attach to all of an individual's behavior, is mistaken in its conception and bound to fail" (Guthrie, 1944, p. 63), and that
correlational studies of behavior cannot speak to causal relationships in a manner nearly so precise as truly experimental methods, Blass (1977) reminds the researcher that his investigation can be nonetheless fruitful:

Let us suppose, for example, that you have generally found that whenever your pet's fur was unusually thick a cold winter followed. If your dog is especially shaggy this year, it would be a good idea to stock up on extra logs and longjohns in spite of the fact that the animal's extra coat obviously does not cause the cold (pp. 3-4).

So it is that uniqueness, comprised of those qualities that distinguish one individual from all others of the species, is an intuitively real component of everyday life. To overlook or, more tragically, ignore "such a salient aspect of our cognitions" is, in the words of Blass (1977), to "give an incomplete picture of the potential determinants of behavior" (p. 5).

It is noteworthy that the cautionary stance of Blass (1977) does not constitute an appeal to the salience of disposition over situation. Rather, he urges a posture which recognizes potentially interactive relationships between man and environment. This view is apparent in the gradually shifting focus of other writers as well. Mischel (1973a), despite earlier statements espousing a situation-specific viewpoint, more recently concludes that it is "wasteful to create pseudo-controversies that pit person against situation in order to see which is most important" (pp. 255-56). And Bem (1972), evaluating the evidence for a unified, consistent, individual personality, originally concluded that such was not the case; yet he too has subsequently declared that, in addition to the focus on situational variables, "personality research must also begin to attend seriously to persons" (Bem
& Allen, 1974, p. 518).

The increased willingness of psychologists to structure theory and research in accordance with the postulates of the 1930's suggests that an era of philosophic and pragmatic cooperation is extant. Lewin (1935) would no doubt be pleased: "The dynamics of environmental influences can be investigated only simultaneously with the determination of individual differences and with general psychological laws" (p. 73).

The present study was predicated on the viability and efficacy of such a scheme. Once the situation-versus-disposition conflict was recognized, however, and a dual approach (i.e., man within environment) adopted, it was necessary, as Byrne (1974) suggests, to operationally define the variables of interest. An examination of personality in an environmental context appears in a subsequent section. The review which follows explores the structure of human personality, examines a number of theoretical explanations of that structure, and posits a temperament view as both realistic and apropos to this study.

The origins and pursuit of personality concepts

The concept of personality is derived largely from intuitive and pragmatic experiences of everyday living. Individuals behave in generally consistent, reliable ways. If this were not the case, "we would have to reacquaint ourselves with our friends every time we met them" (Bliss, 1977, p. 6). Man's perception of unity, which collectively assesses the tendencies and abilities of those about him and, in some subjective sense, categorizes each individual, is simply part of human nature (Asch, 1952). These "generalized action tendencies,"
individualized yet relatively consistent through time and place, constitute what the psychologists call traits (Allport, 1966, p. 3).

Some dispute exists, however, concerning the identification, categorization, and interpretation of the behavioral tendencies Allport (1966) describes. Agreed though psychologists may be on the importance of examining individual differences as potential indicators of personality, two camps are evident when the subject is broached—those espousing "trait" theories and those subscribing to "state" theories. Trait-oriented theorists all, despite rhetoric to the contrary, the dispute between the two groups appears largely confined to the realm of philosophic and semantic obfuscation.

Trait theorists (in a generic application of the term) are interested in identifying and labeling stable differences in human behavior which can be readily observed and categorized (Guilford, 1959). The presence of a trait may or may not, however, imply a "state of being" within the individual, and that is the crux of the debate. For "trait" theorists, traits are constructs created by personality psychologists on the basis of behavioral observations; while for "state" theorists, traits are qualities or "things" that exist in persons (i.e., internal psychodynamic states) (cf., Allport, 1966; Mischel, 1968).

Irrespective of the arguments on behalf of each position, it is clear that internal human differences can only be approached in an inferential way. This is due to the fact that traits are not directly, empirically observable (Allport, 1966).

A majority of trait theorists, whatever their bias, agree that traits are relatively stable and that their presence in an individual
will result in reasonably consistent, predictable behavior. Indeed, the consistency of behavior exhibited by a given individual from one situation to another provides the inferential basis for the very definition of trait (e.g., Allport, 1937; Cartwright, 1974; Mischel & Mischel, 1978).

Most notable among the challenges to this assumption is an early study by Hartshorne and May (1928), in which the deceptive practices of nearly eleven thousand school children were examined. Given the opportunity to cheat, steal, or lie, the youngsters revealed a willingness to engage in all three with statistically similar abandon. But when the environmental settings were altered (i.e., classroom to athletic contest to home) the consistency was low. The conclusions suggested a strong pattern of situational ethics, with little evidence of "any general ideal or trait of honesty" (p. 15).

Plausible questions concerning the veridicality of the Hartshorne study have been raised (e.g., Allport, 1961; Asch, 1946; Maller, 1944), but the issue remains unresolved. Blass (1977) urges that any future attempts to verify transsituational consistency consider the appropriateness of the personality measures utilized and the conceptual link between the situation and the variables explored.

And that is precisely the problem trait researchers face. What characteristics of personality are meaningful and appropriate, common yet differentiating, sufficiently general yet reasonably precise?

The complexities of the English language (to say nothing of foreign tongues!) insure an illusive answer. Allport and Odbert (1936) sat down with the dictionary and promptly identified more than 17,000 trait names; and in a rather humorous attempt to magnify the lexical
problem, Cartwright (1974) came up with this:

The person is abrasive, beefy, cataleptic, diabetic, egotistic, fleshless, ghoulish, happy-to-lucky, ill-mannered, lecherous, made-up, neurasthenic, open-handed, pharasaical, ritualistic, salacious, telepathic, un-American, vulpine, weak-kneed, yeasty, and zestful (p. 238).

And that effort didn't even include j, k, q, or x words!

Fully cognizant of the language difficulties, psychologists have sought to group, regroup, categorize, and factor analyze to make some order of chaos. Perhaps typologies, taxonomies, and the like can be developed to relate terms in a meaningful way, they reason. Consequently, beginning with the "common sense" typologies of Hippocrates and Aristotle, and continuing through the highly sophisticated research of Cattell (1950, 1965) and Eysenck (1947, 1961), a body of personality theory has emerged.

**Typological views of personality**

Some theoretical taxonomies assign individuals to specific, discrete *types*. The typologies which result from this approach are, at first blush, very appealing, primarily due to their simplicity. In some respects, however, the typological approach is inadequate. The dichotomous nature of types (i.e., the individual either is or is not a member of a particular classification) fails to account for the complexities of human nature and the common finding that persons possess continuously variable quantities of a given characteristic (Mischel, 1971).

The Greek physician Hippocrates is generally credited with postulating the first structured typology of human personality. In his view, the predominance of one or more bodily "humors" (i.e., yellow
bile, black bile, blood, or phlegm) was believed to produce choleric (aggressive, irritable), melancholy (moody, depressed), sanguine (sociable, cheerful), or phlegmatic (listless, calm) traits (e.g., Mischel, 1971; Mischel & Mischel, 1977).

Another popular theory involved an attempt to categorize individuals on the basis of bodily shape, or somatotype. Sheldon, Dupertuis, and McDermott (1954), for example, prepared an Atlas of Men which was at once scholarly and humorous. Describing human physique in a search for "biological identification tags" (p. 3), the ectomorphic (obese), mesomorphic (muscular), and endomorphic (spindly) characteristics of men served to place them in categories defined, in part, by reference to other animal species (e.g., walking sticks, wasps, wolves, falcons, sheep, dolphins, whales, and baluchitheriums). The scheme appears to have some merit due to the prevalence of stereotypes in society, but carefully designed studies which avoid stereotypic associations generally fail to support Sheldon's hypotheses (e.g., Tyler, 1956).

Yet a third view of human temperament has been offered by Jung (1928). He described individuals as either shy, inward, and reserved or carefree, outgoing, and sociable. The introversion/extraversion typology thus derived has been the focal point of a considerable body of subsequent research, most notably that of Eysenck (1947, 1961).

Factor-analytic views of personality

Typological views of personality were appropriate first steps in the exploration of human differences; but with increased recognition of the psychological complexity of mankind, and the accompanying advent of sophisticated methodological techniques, a factor-analytic approach
to personality became the generally accepted modus operandi. Factor analysis permitted the simultaneous exploration of many potential traits and their interrelationships. It additionally encouraged those theorists who believed that traits were continuously variable in intensity and commonality (e.g., Cattell & Butcher, 1968; Guilford, 1961; Jackson, 1973). Thus what may be called factor-analytic views of personality began to emerge.

Allport (1937) looked for "bona fide mental structures" in individuals. He believed that these structures, properly identified, would predictably integrate environmental stimuli and characteristic human responses. Allport categorized traits as "cardinal," "central," or "secondary" in accordance with their relative importance in an individual's response set. This hierarchial structuring of traits assured the uniqueness of every human being, an important assumption in Allport's theory of personality.

Cattell's (1950, 1965) theoretical musings possess much in common with those of Allport (1937). He distinguishes between traits identifiable in all people ("common" traits) and characteristics which, in structure or strength, can be found in only one individual ("unique" traits). Utilizing advanced techniques of correlation and factor analysis, Cattell also seeks to separate "surface" and "source" traits to obtain a clearer picture of personality. Yet another categorization stems from the person/situation interaction which produces what are described as "constitutional" and "environmental-mold" traits. In sum, Cattell's trait taxonomy is complex, yet remains intuitively and theoretically defensible.

A third factor-analytic approach to personality is that pursued
by Guilford (1959). Though his theories possess marked similarities to those espoused by Allport (1937) and Cattell (1965), Guilford tackles the categorization of traits in a somewhat different manner. He speaks of interests, needs, aptitudes, and attitudes in his taxonomy, thus sounding like a psychodynamicist with traitist leanings. Smatterings of Sheldon's (1954) hypotheses also appear in Guilford's classifications of both behaviorally related and somatic characteristics. He does, however, view personality as the individual's "unique pattern of traits" (p. 5), placing him squarely in the camp of the trait psychologists.

The human-temperament view of personality

In the last three decades, Eysenck (1947, 1961) has done much to bridge the gap between typological and factor-analytic views of personality. In addition to the four-temperament postulates of medieval science and the introversion/extraversion typology of Jung (1928), Eysenck argues for the validity of a stability/neuroticism construct. He has suggested that individuals vary along a continuum from high emotional self-control to extreme, sometimes unpredictable lack of control. The stability/neuroticism construct, when coupled with a continuously variable permutation of introversion/extraversion, produces a view of personality which has marked compatibility with the original four-temperament scheme (see fig. 1).

Eysenck (1947) further believes that human temperament is largely inherited, transmitted through genetic channels from one generation to the next. Much of his research has sought to establish this view, with, it is noted, moderate success (cf., Eysenck, 1960; Eysenck
& Eysenck, 1963). Such findings endow the temperament constructs with advantages of specificity, predictability, and applicability not readily attainable in other theoretical views of personality.

More recently, Blitchington and Cruise (1979) have concluded that Eysenck's (1947) approach is basically sound, yet fails to sufficiently account for complex temperament profiles. Reasoning that temperament traits are also continuously variable and do not exist in solo, they devised (Cruise & Blitchington, 1977) and validated (Cruise, Blitchington & Futcher, 1980) a means of assessing the relative strength of each trait—phlegmatic, sanguine, choleric and melancholy.
without diminishing the impact of Eysenck's original postulations.

The human-temperament view of personality appeared to offer a rationally defensible and operational definition for the personality variables in this study. More specifically, given the demonstrable stability and universality of temperament constructs and the welcome balance between typological convenience (i.e., few categorizations) and factor-analytic precision, the work of Cruise, Blitchington, and Futcher (1980) was adjudged most suitable for the application reported herein.

**Occupational Psychology and Personnel Administration**

Supplementary to an introductory understanding of the structure and dynamics of personality, a perusal of selected tenets of occupational psychology and personnel administration provided necessary contextual background for this study. This portion of the review examines the environmental component of personality, with an eye toward human behavior in an occupational context. The person/job interaction, contributions of key occupational theorists, selected views of leadership behavior, and certain personnel functions are explored in turn.

**The person/job interaction**

In a 1973 publication entitled *Work in America*, the United States Department of Health, Education, and Welfare summarizes a number of key considerations when one presumes to examine the person/job relationship. This document suggests that work is central to the lives of most Americans and, consequently, becomes a chief factor in providing the individual with a personal identity, self-esteem, and life meaning. It further contends that a failure to achieve or be satisfied with
one's occupational role frequently results in a general malaise which can affect all aspects of a person's life.

These views most certainly reflect the propositional stance of numerous occupational and personality psychologists, who argue that attempts to isolate the work environment from the totality of human experience are both artificial and unfortunate (e.g., Bem, 1972; Blass, 1977; Forehand & Gilmer, 1964; Mischel, 1973; Opsahl & Dunnette, 1966; Pervin, 1968). Indeed, at least one management theorist insists that the person/job interaction is, by nature, an antagonistic one, thus deserving of close scrutiny (Argyris, 1957, 1963, 1973). Argyris considers man's attempts to "self-actualize" as incongruent with the very structure and goals of organizational endeavors.

Antagonistic or not, how might the person/job interaction best be explored? Numerous theories have been advanced. A notable example is that of Katzell, Barrett, and Parker (1961), who studied the potential relationships between job satisfaction and job performance among industrial workers. They believed that any attempt to understand dependent variables in the work environment (job performance in this instance) must also consider moderating variables (i.e., expectations, aspirations, and motivations of the employees).

The model which Katzell and his associates (1961) proffered was one in which individual employee characteristics and environmental factors were treated as input variables; employee attitudes and behaviors were manifest as output variables. Two primary hypotheses were logical correlates of this view: (1) varying input variables affects output, principally through the channels of employee motivation and ability; and (2) multiple inputs are interactive in their effects.
Two years later, Sells (1963) focused on the interactions of person and work environment, speaking of the importance of determinism as a key to psychological investigation and declaring that human behavior, to be properly understood, must be viewed as the result of a "mediated transaction" between the organism and environment. Sells insisted on the importance of clearly defined concepts of both man and environment as prerequisite steps in understanding the more complex interrelationships.

The admonitions of Bem, Blass, Katzell, Sells, and others have no doubt been heeded. Examination of the person/job interaction has been part and parcel of numerous studies in recent years. A few examples serve to illustrate.

Dawis, Lofquist, and Weiss (1968) tackled the issue by employing a model which contrasted individual abilities and needs with environmental rewards. Graen, Dawis, and Weiss (1968) concurred with Dawis and associates that individual differences within a particular environmental context are of significance in understanding job satisfaction and morale. Their conclusion, in essence, is that the interface between unique personal needs and the demands and opportunities of the work environment produces varying degrees of employee job satisfaction.

In yet another study, Hackman and Lawler (1971) pursued the person/job relationship by exploring individual need levels as predictors of employee attitudes and performance; and a sizeable study by Kohn (1969) examined the relationship between environmental variables and the psychological states of an individual. In this instance, Kohn and Schooler (1973), in a reevaluation of the results, discovered that
an occupational environment inviting a large degree of self-direction from the worker (i.e., freedom to act with minimal supervision, marked task complexity, and much variety of activity) was indeed preferred by those employees possessing a self-directional psychological outlook.

In these and similar studies, certain related terms appear with remarkable frequency (e.g., satisfaction, attitudes, aspirations, morale), and nearly all relate in some way to the broader concepts of personality. Thus it is that simultaneously with the growing acceptance of a Gestalt view of man at work has come a particular interest in human differences.

A number of vocational psychologists have expressed plausible views of the person/job interaction vis-a-vis personality. Because their initial explorations dealt with vocation behavior at its most fundamental level, job entry, the resultant postulates were dubbed theories of vocational choice. Such theories, however, encompass a much broader sphere of occupational behaviors. Three of the theoretical structures most apropos to the present study are discussed in some detail.

Selected theories of vocational behavior

Roe (1957; Roe & Siegelman, 1964) examines occupational choice as a function of genetic influences and personal needs. Her propositions derive primarily from the contributions of Murphy (1947) and Maslow (1954) to the body of personality theory: the individual's predispositions to act in certain ways when confronted by unsatisfied needs result in predictable vocational behavior.

Roe's (1957) belief that every individual develops uniquely
characteristic behavioral patterns, dependent on inherited tendencies and childhood experiences, reflects acceptance of Murphy's (1947) postulate that patterned expenditures of "psychic energy" are genetically induced. In addition, Roe views the individual's need structure as much more than random desires, opting instead for the hierarchial scheme of Maslow (1954). She concludes, on the basis of somewhat incomplete, descriptive research, that notable personality distinctions do exist among members of various occupations; and that the occupational orientations of workers are best categorized on the basis of expressed interest in other persons (i.e., degrees of sociability).

Another prominent vocational theorist builds on what others have termed the "self-concept" orientation to personality and human behavior (e.g., Bordin, 1943; Carter, 1940; Rogers, 1942). Super (1953, 1957, 1963a,b,c) utilizes the life-stages concepts of Buehler (1933) as the foundation for a finely detailed conceptualization of career development. Dubbed a "developmental self-concept theory of vocational behavior" (Osipow, 1968, p. 117), Super's position distinguishes between differentially premised occupational psychology and developmentally supported career psychology. Decrying the tendency to view a person/job match as a once-in-a-lifetime event, Super posits vocational behavior as a result of interactions between an individual's self-concept and present life stage.

Among the numerous propositions offered by Super (1953), the following are significant in the context of this study:

1. People differ in their abilities, interests, and personalities.
2. They are qualified, by virtue of these characteristics, each for a number of occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests, and personality traits . . .
4. Vocational preferences and competencies . . . change with time and experience . . . making choice and adjustment a continuous process.
5. This process may be summed up in a series of life stages characterized as those of growth, exploration, establishment, maintenance, and decline . . .
6. The nature of the career pattern (that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs) is determined by the individual's parental socio-economic level, mental ability, and personality characteristics . . .
7. Development through life stages can be guided . . .
8. The process of vocational development is essentially that of developing and implementing a self-concept . . .
9. The process of compromise between individual and social factors, between self-concept and reality, is one of role playing . . .
10. Work satisfactions and life satisfactions depend upon the extent to which the individual finds adequate outlets for his abilities, interests, personality traits, and values . . . (pp. 189-190, italics supplied).

Note especially the emphases on personal characteristics and self-concepts. Super's message is clear. Any attempt to examine person/job relationships must employ methodologies which deal with individual differences.

The third vocational theorist of interest is Holland (1973), who begins by outlining four major assumptions which lend structure to his proposals: (1) most persons can be categorized on the basis of personality types; (2) occupational environments may be categorized using an identical typology; (3) people search for an occupational environment compatible with their personalities; and (4) a person's occupational behavior is predicated on the interactions between personal and environmental characteristics. Holland posits six personality and environmental types (realistic, investigative, artistic, social, enterprising, and conventional), though the present study makes no use of his classifications.
Recent formulations of Holland's (1973) hypotheses incorporate what he terms "secondary assumptions," some of which have relevance. A brief look at each is appropriate.

**Consistency** refers to varying degrees of "relatedness" between person/environment types. Realistic and investigative individuals, for example, would presumably have more in common than conventional and artistic types. Parallels to this concept may be seen in the temperamental view of personality delineated by Cruise, Blitchington, and Futchcr (1980; see also fig. 1, p. 27).

**Differentiation** speaks of the dominance of a particular type. That person, for instance, who possesses a predominance of realistic traits would be clearly differentiated; while that individual who resembles three, four, or even more types is said to be undifferentiated. Once again, Holland's assumption meshes perfectly with the constructs of Blitchington and Cruise (1979).

**Congruence** exists when the type characteristics of the individual match those of the environment. Conversely, incongruence describes the existing state when a person finds himself in an environment foreign to or incompatible with his particular characteristics. This assumption is strongly reflective of Lewin's (1936) postulations concerning the man/environment relationship and the subsequent findings of occupational psychologists with respect to the person/job interaction (e.g., Dawis, Lofquist & Weiss, 1968; Graen, Dawis & Weiss, 1968; Hackman & Lawler, 1971; Kohn, 1969). Congruence, or lack of it, certainly merits consideration in any effort to explain comparative levels of employee competence or job performance.

The typology and assumptions thus described by Holland stemmed

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from his experience as a vocational counselor. Seizing upon the suggestion of Darley (1938) that the formulation of vocational stereotypes might be a viable approach to occupational research, and reassured by Guilford's (1954) extensive study of human interests and personality traits, Holland (1973) set about to "formulate a clear testable structure for each type [that would] conform with as many scientific principles of logic and evidence as possible" (p. 6).

Once again the contentions of Lewin (1935), Allport (1937), and Murray (1938) came to the fore. Coupled with the belief that one option for assessing the nature of an environment is to characterize the individuals occupying that particular environmental space (not a new idea, witness the notions of Linton, 1945), the theory of man/environment interaction seemed well suited to Holland's explorations.

Echoing the sentiments of Super (1953), Holland (1973) premised his search on a number of "principles" (not to be confused with the assumptions previously cited) which "seemed plausible, or at least hard to imagine as false" (p. 6). That is not to say that these suppositions embodied idle dreams alone; rather, Holland offered cogent arguments from the literature for the support of each one. Five of the "principles" thus established are apropos to the present study:

1. "The choice of a vocation is an expression of personality" (Holland, 1973, p. 6). Holland cites the work of Strong (1943), Super and Crites (1962), and Campbell (1971) as exemplary of a view which insists that vocational interests are independent of personality. Not so, he contends, offering the studies of Bordin (1943), Darley and Hagenah (1955), and Super (1972) in support of his thesis. This "principle" is the key to Holland's entire theoretical position, which, in
his words, is "mainly an elaborate engineering of this . . . idea" (p. 6).

2. "Vocational stereotypes have reliable and important psychological and sociological meanings" (Holland, 1973, p. 8). In defense of this hypothesis, Holland offers studies by O'Dowd and Beardslee (1960, 1967) and Marks and Webb (1969). In the former, it was demonstrated that occupational stereotypes were generally consistent among differentiated groups of high school and college students, college faculty members, and sexes. Additionally, it was found that the identified stereotypes varied little with the passage of time or the social status of the participants. Marks and Webb (1969) showed that the stereotypic images of selected professions (management and electrical engineering, in this instance) held by novices, trainees, and on-the-job participants were markedly consistent.

3. "The members of a vocation have similar personalities and similar histories of personal development" (Holland, 1973, p. 9). This hypothesis is a logical extension of the first. If vocational choice is indeed an expression of personality, it is assumable that a particular vocation attracts and holds like individuals. Laurent (1951) has identified pronounced similarities in the life histories of lawyers, physicians, and engineers, respectively; and subsequent studies appear to confirm his findings (e.g., Chaney & Owens, 1964; Kuhlberg & Owens, 1960; Nachmann, 1960; Roe, 1956). Holland further contends that carefully selected groups of occupations, those with similar environmental characteristics, will also reveal prominent likenesses among members.

4. "Because people in a vocational group have similar personalities, they will respond to many situations and problems in similar
ways, and they will create characteristic interpersonal environments" (Holland, 1973, p. 9). Holland admits only indirect support for this proposition, though it too reflects a stepwise extension of the concepts earlier described. Citing studies which have demonstrated correlations between perceived environmental types and the actual percentages of group membership represented by the corresponding personality types (e.g., Astin, 1968; Astin & Holland, 1961; Richards, Seligman & Jones, 1970), Holland suggests that this "principle" merits acceptance on an a priori basis.

5. Lastly, "vocational satisfaction, stability, and achievement depend on the congruence of one's personality and the environment (composed largely of other people) in which one works" (Holland, 1973, p. 9). The psychological "fit" between man and his vocational setting is the issue here, and the literature is replete with arguments supporting the tenability of Holland's position (e.g., Barnard, 1974; Mitchell, 1978; Mount & Muchinsky, 1978; Porter & Lawler, 1973).

Particularly noteworthy is Holland's (1973) parenthetical rejoinder to consider the work environment in terms of the people involved. "Principle" number five asserts, in essence, that all major aspects of vocational behavior are dependent on the interactions of people with people--employee/employer, follower/leader, worker/worker, etc. Holland's entire person/job typology is predicated on this core belief.

By implication, Holland (1973) has posited a refinement of the person/job interactive model previously described in this chapter. He appears to suggest that the model is best approached via studies of person/person interactions in a job setting. Is this amended scheme
compatible with present views of leadership behavior? A brief review of leadership literature will examine the evidence.

Leadership behavior and the person/person interaction

Early management theory conceived of man as an economically oriented individual, interested only in financial reward and thus motivated solely by the prospects of increased remuneration (e.g., Taylor, 1918). Consequently, the distinctions between management and leadership were thoroughly muddled. Management, in its purest form, deals with things, while leadership focuses on the human aspects of organizational structure (Fiedler & Chemers, 1974). All too frequently, people were perceived as little more than additional resources to be exploited for the good of the organization.

Citing the traditional views of leadership (e.g., Cattell, 1951; Cowley, 1928; Hemphill, 1954; Homans, 1950; Stogdill, 1948), Feidler and Chemers (1974) decry the typically weak emphasis on human relationships in organizational settings. More specifically, they contend that the traditional "definitions of leadership generally fail to do justice to the emotional component saturating the relationship between leader and group member" (p. 5).

With time, however, new views of man and his attitudes toward work have begun to emerge. The "socio-emotional" and "task specialist" designations of Bales and Slater (1955), the "employee-centered" and "job-centered" descriptions of Likert (1961), the "togetherness" emphasized by Mayo (1960), the "theory X" and "theory Y" postulates of McGregor (1960), the "consideration" and "initiation of structure" of Stogdill and Coons (1957)---all are indicative of the shift toward
people-centered, democratic concepts of leadership.

Such realignment is not without cause. Leadership research had, for the most part, concentrated on the abilities, intelligence, and charisma of leaders with rather inconclusive results (Mann, 1959; Stogdill, 1948). Indeed, if any conclusion at all was apparent, it was this:

A person does not become a leader by virtue of the possession of some combination of traits, but by the patterns of personal characteristics, activities, and goals of the followers. Thus, leadership must be conceived in terms of the interaction of variables which are in constant flux and change. It becomes clear that an adequate analysis of leadership involves not only a study of leaders, but also of situations (Stogdill, 1948, p. 64).

Subsequent research has, in fact, supported the veracity of Stogdill's views. Vroom (1959, 1960) concludes that the characteristics of employees are significant factors in affecting the outcomes of leadership style in a given environment. And in tests of what he describes as a "contingency model," Fiedler (1966; Fiedler & Chemers, 1968) has demonstrated that leadership performance in one setting is not necessarily indicative of the quality of performance in another environment.

The focus on human components in organizational settings has produced a deluge of potentially explanatory theory. Jacques (1951), for example, views the organization as a mini-culture, bound by its "customary and traditional way of thinking and doing things" (p. 251), which in turn affects and is affected by all members. Dale (1973) extends Jacques' concept a bit and describes the individual member as a variable in the organization, who, in reaction with the other variables (i.e., employees and/or employers), may produce an informal
Barnard (1938) advocated a cooperative view of leadership. He emphasized the attitudes and beliefs of individuals as factors in their decisions to participate, function effectively, and thus produce results compatible with the objectives of the organization. He minimized the role of financial or material rewards, declaring that they seemed "ineffective beyond the subsistence level" (p. 144), and posited instead the "condition of communion" as a key to understanding human behavior in a job context.

Bakke (1953) assayed the potential conflict between employee and organizational goals and offered a "fusion model" as an appropriate explanatory device. Acknowledging the "remaking" which takes place between employee and organization when the two unite, he suggests that an effective compromise be struck between the socializing processes and personalizing influences which are present. Opportunities for "personality realization" thus loom important in the administrative decisions made by an organization, a concept highly compatible with and reflective of the needs-fulfillment views of personality psychology.

Numerous other leadership theorists have explored the person/job relationship and have adopted positions which emphasize a melding of individual and organizational goals (e.g., Argyris, 1957; Harrington, 1960; Likert, 1959). Each has his own unique viewpoints; but, in general, they are not ready to accept the dictum that organizational decisions should be cold-blooded and detached, and that the administrator should "then expect the infinite variety of human nature to fit into [them]" (Urwick, 1947, p. 36). Rather, they insist that human
organizations must value the unique qualities of individuals and fuse the demands of production with the morale-building potential of carefully conceived and executed personnel policies.

These concepts of human relations management are apparent, to some degree, in most organizations, particularly those with a social orientation (e.g., schools, churches, service clubs). Nonetheless, "most sociotechnical systems operate with traditional structure, policies, and practices, laid over with a thin veneer of human relations modifications" (Milis, 1975, p. 233). This "thin veneer" intimates lip-service to the importance of personality in organizational structure, but fails to convincingly argue for a shift of attention elsewhere. It becomes all the more imperative to thoroughly examine the role of personality in group performance and employee satisfaction. One place to begin is in the realm of personnel policies and procedures.

Personnel administration and personality variables

One prominent function of leadership in the present organizational milieu is personnel administration. A review of the literature associated with studies of occupational environments clearly demonstrates that the person/job model, or person/person model as Holland (1973) might define it, is appropriate for explorations of personnel recruitment, selection, assignment, appraisal, performance, satisfaction, and turnover.

In this regard, Münsterberg (1918) sums up the generally accorded stance of modern personnel managers: "Personalities present unlimited manifoldness of talents and abilities ... it necessarily follows that some are more, some less, fit for the particular task"
Despite that recognition, however, the process of personnel selection is fraught with uncertainty.

In general, recruiters, both professional and otherwise, rely on past records of work-related performance, trial tests, psychological examinations, and interviews. Various permutations of these techniques are utilized to assess applicant suitability for the intended task, yet "given two or more candidates for a job, there is no absolutely sure way of selecting the best one" (Dale, 1973, p. 359). It is apparent, nonetheless, that all of the procedures delineated above possess some relationship to the assessment of human personality.

Questionnaires frequently query applicants in a manner designed to elicit personality characteristics. Psychological testing is unabashedly directed at the measurement of individual traits. Interviews are chiefly intended to garner "first impressions," estimates of social compatibility, and similar personality-focused indicators. Intelligence, aptitude, and trait-oriented personality inventories have all been used (Dale, 1973). Unfortunately, the inherent weaknesses of these devices severely inhibit their reliability.

Employee advancement is another area of personnel administration for which there is little solid assistance in the literature. Dale (1973) attributes this deficiency to the difficulty of accurately assessing employee competencies with the specific demands of the vacant position in view. He postulates three extenuating reasons for this difficulty: (1) the discrepancy between what the prospective employee has done and the requirements of the new role; (2) the hazards of personnel evaluation from a supervisory position other than immediate superiority; and (3) a simple lack of knowledge concerning the actual
abilities of currently employed personnel (the "thin veneer" again?).

One technique, performance appraisal, represents an on-going effort to correct the deficiency Dale (1973) describes. Personnel managers have long sought to improve advancement procedures and evaluate the quality of work with an eye toward improved output. A number of approaches to appraisal are extant; but most common, at least in the years immediately following World War II, was the trait-rating form. Though task performance factors occasionally appear on such forms, by far the majority of items require subjective evaluations of personality characteristics (Dale, 1973).

The performance appraisal movement is not without opponents. Indeed, McGregor (1957) appraised the appraisal process and concluded that an evaluator who assigns and interprets personality characteristics is, in effect, "playing God" (p. 90). In the same journal, however, a subsequent writer defended performance appraisal with the argument that carefully considered judgments of an employee's competence are certainly more accurate than solely intuitive, hastily verbalized evaluations (Mayfield, 1960). It is likely that the debate will continue.

The quality of job performance, whether evaluated or not, is dependent on a number of factors. In general terms, the "underlying principle for effective performance is job fit--the right person working on the right job under the right conditions" (Mitchell, 1978, p. 352). This conception is markedly similar to Holland's (1973) fifth "principle," cited earlier, which stresses the congruence of human and environmental personalities if occupational success is to be achieved.

The idea of job fit is supported by a considerable body of
research which documents the presence of strongly similar attitudes among employees of a given occupational category (e.g., Campbell, Dunnette, Lawler & Weick, 1970; Friedlander, 1965; Herzberg, Mausner, Peterson & Capwell, 1957; Opsahl & Dunnette, 1966; Porter & Lawler, 1965). It has also been quite clearly demonstrated that different levels of job satisfaction are associated with different occupational levels (e.g., Parnes, Fleisher, Miljus & Spitz, 1970; Porter & Lawler, 1965).

One outcome of adequate person/job congruence appears to be a superior sense of job satisfaction, which, in turn, affects performance. A key theory in this regard is that proffered by Porter and Lawler (1968), from which they develop a strong case for satisfaction-based performance. More specifically, they postulate that felt satisfactions affect the perceived values of job rewards, thereby producing improved performance if the availability of the rewards seems probable. Lawler (1973) refines the earlier model by placing significant emphasis on the concept of perception. A balance between actual rewards and perceived equitable rewards is necessary, in Lawler's view, for both a high degree of satisfaction and performance.

The nature of man's perceptions, however, has proved a puzzlement to numerous researchers. The "Hawthorne Studies," summarized in Roethlisberger and Dickson (1939), devoted considerable attention to work schedule and lighting changes, and concluded that environmental modifications were of little real significance in altering employee attitudes and satisfaction. Hoppock (1935), on the other hand, found that advancements in occupational level produced increased satisfaction, so the issue of external variables as motivators is not resolved.
Schaffer (1953) extended the search by seeking psychological "sets" or predispositions which might contribute to job satisfaction. Subsequently, Landy and Trumbo (1976) have suggested that Schaffer's work was, despite methodological limitations, the forerunner of the need theories (e.g., Maslow, 1954) and instrumentality theories (e.g., Porter & Lawler, 1965) which receive prominent attention today.

Most studies of job satisfaction (and there are many more!) have utilized measures of attitudes, either by interview or questionnaire, as indicative of personal feelings, beliefs, or action tendencies (Landy & Trumbo, 1976). All three--feelings, beliefs, action tendencies--possess a marked relationship to the human-temperament views of personality. And all three additionally relate to the final personnel problem to be considered in this review--employee stability within the organization.

Personnel turnover, for whatever reason, is critical to organizational effectiveness and success (Porter & Steers, 1973). Of that there is little doubt, if for no other reason than the financial discomfort afforded by frequently moving personnel (Lawler, 1973). Consequently, the pursuit of factors related to employee stability has been varied and extensive.

The traditional view has long been unquestioned, namely that the "activities and duties required of the individual in his job are significant in the individual's decision to remain with or leave the organization" (Porter & Steers, 1973). But considerable evidence has become available which indicates that job satisfaction, whatever the duties, is highly correlated with turnover (e.g., Ronan, 1970; Ross & Zander, 1957; Sheppard, 1967; Speroff, 1959; Vroom, 1964). Additional
studies by Taylor and Weiss (1976) and Schuh (1967) suggest that the findings in this regard may also be extended to include elements of individual difference.

Examples of such differences include age, sex, social status, and length of service (tenure); and, in general, the evidence argues for each characteristic as a reasonably positive indicator of mobile tendencies (e.g., Dansereau, Cushman & Graen, 1974; March & Simon, 1958; Seybolt, 1975). The particular permutation of such differences in a given individual constitutes his "level of mobility," and the interaction between job satisfaction and mobility level becomes the determinant of turnover (March & Simon, 1958; Seybolt, 1975).

Knowing this, the personnel administrator can devise means of increasing the job satisfaction of employees, since he can hope to have little impact on many of the other variables. Fleishman and Harris (1962), for example, found that increases in the "consideration" elements of leadership (see Stogdill & Coons, 1957) result in decreased rates of turnover. And in another study, Herrick (1972) found that interpersonal factors exceeded remuneration and job security as strong correlates of worker satisfaction. Just as personality factors have been viewed as the greatest causal variables in employee dismissal (Super, 1957), perhaps they can be considered equally responsible in an employee's personal decisions to remain as well.

So it is evident that personality and career are related in unique and important ways. While some advocate a match of career with personality (e.g., Holland, 1973), others contend that personality adjustments in accordance with job demands are the best routes to job satisfaction (e.g., Barnard, 1974). Whatever the option, however, the
implications are clear. A match between occupation and personality, regardless of direction, requires a positive understanding of the characteristics of a given work environment and the people within that environment. That is one thrust of the present study.

The Assessment of Personality

Thus far the review of literature has briefly described some approaches to personality theory, opted for a traitist viewpoint, and explored the role of personality in vocational settings. It is one thing to intuitively and philosophically explore the concepts and dynamics of human personality, quite another to support those views with reliable, empirical evidence. This portion of the review offers a brief introduction to personality assessment, as well as certain measurement tools, and synthesizes selected study results which portray teacher personalities.

The nature of personality assessment

For many personologists, assessment is at once a science and an art (Sundberg, 1977). Though the term may be relatively new to the vocabulary of personality psychologists, the concept is ancient in origin. DuBois (1970) reminds readers that the Chinese peoples used written examinations for screening job applicants, possibly as early as 206 B.C.; and Sundberg (1977) cites the Biblical experiences of Gideon while choosing an army as evidence of the art of assessment. Gideon's technique was, in some modern sense, a sophisticated one, for he relied not only upon self-report but behavioral observation as well.

More recently, the personnel demands of worldwide conflict (i.e., World Wars I & II) gave renewed impetus to the development and
application of more sophisticated psychological measures, and that
trend has continued through times of peace as well. Modern applica­
tions of personality assessment include such diverse activities as
astronaut screening and medical-school acceptances (Sundberg, 1977).

All such attempts, no matter how primitive or methodologically
complex, depend on the fact that "every man is in certain respects like
all other men, like some other men and like no other men" (Kluckhohn,
Murray & Schneider, 1953, p. 53). The ways in which men differ, the
"dimensions and facets that are present in varying degrees" (Gough,
1976, p. 578)--these are the subjects of personality assessment.

The first attempts to describe and understand human differences
were primarily literary in form, emanating from "imaginative writers,
who had built up a large, but unsystematized, body of intuitive knowl­
edge" (Gough, 1976, p. 53) concerning individual traits. A second ap­
proach, prompted no doubt by the clinical techniques in medicine, uti­
lized personal, direct contacts with subjects, generally over long
periods of time, as the preferred means of personality assessment.
Eventually, quantitative, sometimes experimental methods emerged as
the "most used" measures, particularly as refined multivariate, factor
analytic, and correlational techniques were made available (Cattell &
Butcher, 1968).

The increased sophistication of statistical procedures held
great promise for trait psychologists in particular (Mischel, 1971).
They could envision new vistas of personality research as primary
traits were better isolated and a continually improving taxonomy of
personality terms evolved.

It is easy to understand their new excitement. Day-to-day,
intuitively guided applications of personality assessment were not so much concerned with quantity as quality. But Thorndike (1918) had early reminded researchers that "whatever exists at all exists in some amount. To know it thoroughly involves knowing its quantity as well as its quality" (p. 194). So it is that the quantitative approach to assessment has become central in the milieu of personality research.

**Tools for personality assessment**

Quantitative explorations require tools or devices for "acquiring [samples] of a person's behavior in a standard situation" (Sundberg, 1977, p. 38), and the most commonly adopted measurement tool is the test. Personality tests are legion (e.g., Buros, 1972; Cattell & Warburton, 1967; Johnson & Bommarito, 1971) and attempted categorizations of these devices are nearly as abundant. Perhaps one of the most practical taxonomies is that offered by Sundberg (1977), which assigns all assessment tools to one of three key groupings: behavioral measures, projective techniques, and objective tests.

Behavioral measures are premised on the theoretical foundations of Skinner (1938), Wolpe (1958), and similar behaviorists. Replete with such terms as "behavioral modification," "behavioral engineering," and "classical and operant conditioning," the behavioral approach is characterized by problem checklists, self-reports of specified behaviors, and open or secretive observations of behavior in both natural and contrived settings (e.g., Bandura, 1969; Lazarus, 1961; Flanders, 1968).

A second measurement tool, reflective of psychodynamic theories of personality, is that of projection. In terms of simplicity and
clarity, Kelly’s (1958) definition is without equal:

When the subject is asked to guess what the examiner is thinking, we call it an objective test; when the examiner tries to guess what the subject is thinking, we call it a projective device (p. 332).

Noteworthy examples of projection tests are the Rorschach (1942) inkblots and the Thematic Apperception Test (TAT) of Morgan and Murray (1943). Modifications and extensions of both tests abound.

The third and final measurement device in Sundberg’s (1977) taxonomy is the objective test. This category includes the well-known preference questionnaires, interest and personality inventories, and similar paper-and-pencil tools. Objective tests generally require true-false, multiple choice, or other highly structured responses, with the result that high reproducibility and low subjectivity are at levels typically not afforded by other known devices (Sundberg, 1977).

Responses to objective tests, dubbed Q-data by Cattell and Butcher (1969), can be subjected to detailed statistical analyses and subsequently evaluated in light of other findings or the particular hypotheses under test. This emphasis on structured, methodical assessment is valuable for a number of reasons (Jackson, 1973):

1. The utilization of properly selected test items permits a specificity previously thought unattainable in psychological research. Numerous conceptual and statistical aids become available to the researcher when a narrowly focused personality item is the subject of examination (e.g., Gullicksen, 1950; Lord & Novick, 1968).

2. Objectivity and replicability are markedly increased. The minimization of highly judgmental responses permits subject-to-subject and rater-to-rater consistency, thereby enabling other researchers to
replicate a study in whole or in part.

3. The validity of measurements taken is much enhanced. Carefully designed objective items permit the researcher to deal with questions of content, criterion, and construct validity (see American Psychological Association, 1974, for extensive descriptions of each type).

Positing his belief that much of what is termed personality can be measured in terms of individual responses to objective tests, Jackson (1973) concludes that a comparison of the personality inventory with presently known alternatives assures its continuation as the "method of choice for most assessment decisions" (p. 776). A personality inventory was the "method of choice" for this study as well.

**Formal measures of human temperament**

Formalized personality inventories abound, but the adoption of a four-temperament construct as the operational definition of personality in this study severely limited the availability of suitable instrumentation. Three reasonably valid, published measures of human temperament were found. The two not selected for use in this study merit brief attention in the context of this review.

It will be recalled from the preceding narrative that Eysenck (1947, 1959, 1961), utilizing the four-temperament constructs of Hippocrates and the extraversion/introversion typology of Jung, has

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1When the arbitrary, subjective criteria of constructual suitability, empirically demonstrated validity, perceived appropriateness for the population, and ease of administration were applied, one instrument was judged superior for the present application. The Temperament Inventory, developed by Cruise and Blitchington (1977; Cruise, Blitchington, & Futcher, 1980), is thoroughly examined in chapter III.
hypothesized a genetically induced personality which incorporates stable/unstable characteristics as well. Among the outcomes of Eysenck's study was the development of two closely allied data-gathering instruments designed to aid in tests of his hypotheses: (1) the Maudsley Personality Inventory (MPI), and (2) the Eysenck Personality Inventory (EPI). In essence, the EPI is an Americanized refinement of the MPI; and because of their marked similarity only the EPI is dealt with here.

Eysenck sees the stability/neuroticism and extraversion/introversion continuums as orthogonally independent, and there is a considerable body of research which tends to substantiate his claim (cf., Cruise, Blitchington & Futcher, 1980; Eysenck & Eysenck, 1963). The EPI consists of fifty-seven items which require yes/no decisions of the respondents. Nine statements are designed to produce a "lie" score as an indicator of honesty, and the remaining forty-eight items are distributed equally as correlates of the two major constructs. Normative data, solid reliability scores, and growing evidence of construct validity have assured rather widespread use of the instrument (Eysenck & Eysenck, 1963). This interest has waned considerably in recent years, however, for a variety of reasons irrelevant to the present study (cf., Jensen, 1965; Kleinmuntz, 1967).

Scores on the EPI assign an individual or group to a single quadrant of the four-temperament construct (see fig. 1, p. 27). Respondents found to be neurotic and extraverted, for example, might be characterized as choleric, though Eysenck's preoccupation is with the stability/neuroticism and extraversion/introversion continuums previously described. The failure of the EPI to assess and profile all four
temperament traits on a simultaneous basis argued inexorably against its adoption for the present study.

The assessment of teacher personalities

Given the abundance of instrumentation and the apparent abandon with which personality researchers devise inventories to their liking, it might be presumed that the literature is replete with reported assessments of teacher personalities. A small, inadequate sampling of five male and twenty-four female teachers is, however, one of very few studies which describe the traits of practicing educators; and it may be the only one which approaches the question from a temperament-oriented perspective. In this instance, teachers responding to the Eysenck Personality Inventory were discerned to be somewhat neurotic and introverted, thus melancholy (Eysenck & Eysenck, 1963).

Gray (1963) conducted a simultaneous study of teachers, accountants, and mechanical engineers, utilizing the Edwards Personal Preference Schedule (EPPS) and the Miller Occupational Values Indicator. The results indicated that teachers exceeded accountants in the traits of needs deference, affiliation, intraception, abasement, and nurturance; while scoring lower in exhibition, dominance, and endurance. When compared with the engineers, teachers were higher in affiliation, intraception, succorance, and nurturance; lower in achievement, order, dominance, and endurance. Gray's study also revealed that the career satisfaction and prestige values of teachers were lower than those in the other two groups, while teachers exceeded the engineers and accountants in their emphasis on social rewards.

Kuhlen (1963) also used the EPPS in his study of professional
educators. In addition, he supplemented the Preference Schedule results with measures of satisfaction and persistence on the job; and discovered that teachers were markedly high in needs endurance, while female teachers proved exceptionally so in need succorance.

Perhaps the most complex and extensive study of teacher characteristics is that published under the title Characteristics of Teachers (Ryans, 1960). More than 6000 teachers, in 1700 schools and approximately 450 distinct systems, were involved at some point in this colossal undertaking (Ryans, 1964). The variables considered in the study appear almost as numerous as the subjects, with attention given to observed teacher-behavior patterns, legionary demographic distinctions, and a variety of personality traits. The study sought to tap teachers' attitudes, educational viewpoints, intelligence, emotional adjustment ... ad infinitum!

A brief description of just one instrument, the Teacher Characteristics Schedule, serves to illustrate the magnitude of the project. In the words of Ryans (1964):

The teacher characteristics schedule was an omnibus self report inventory based upon some twenty-five originally separate instruments. In its final form, it consisted of 300 multiple-choice and check-list items relating to personal preferences, self-judgments ... and the like (p. 79).

The methodological complexity of the study certainly impacted eventual conclusions. One of the early hypotheses was the likelihood of widely differing personality profiles between subgroups of the population (e.g., secondary and elementary teachers, teachers in large and small schools), a postulation which was subsequently verified. The eclectic, "shotgun" methodology and instrumentation, however, casts considerable shadow on the applicability of findings in the context of this study.
In sum, little is positively known concerning the personality traits of professional educators. With respect to the four-temperament construct, even less is certain. Other than intuitively conceived impressions of temperament characteristics, this study was premised on a cognitive void.

**Summary**

Though there remains a dearth of knowledge concerning the relationships between personality and personnel functions in educational settings, the theoretical support for such studies is abundant. Despite philosophical differences regarding the proper definition of personality and the skepticism of lay critics, psychologists generally agree that temperament traits are real, and that investigations of human characteristics can be a profitable undertaking. Personologists further concur that simultaneous consideration of the person and his work environment holds the greatest potential for significant findings.

This view is widely supported among occupational psychologists and personnel administrators, who also believe that human personality plays a major role in job satisfaction, thereby impacting all aspects of the person/job relationship. Recruitment, appointment, performance, appraisal, turnover—all were seen as functions of job "fit"; and the key to job fit was posited as the congruence between human and environmental personalities.

In addition, the four-temperament construct was offered as a plausible definition of personality, and arguments for an objective, inventory-based assessment of temperament were advanced. Cursory views of studies involving teacher personality revealed the paucity of
significant research. In sum, the feasibility of an investigation of educator/job interactions in the context of personality variables was clearly established.
The purpose of this study was to examine the role of personality as it relates to selected aspects of personnel administration in the Seventh-day Adventist school system. This chapter describes the population and sample, lists the variables employed, states the hypotheses in null form, outlines the procedural steps in data collection and analysis, and offers a summary of the methodological limitations encountered.

The Population and Sample

The specified population included all teachers, teacher/principals, principals, supervisors, and superintendents in non-black K-10 school systems of the North American Division of the Seventh-day Adventist Church. When the project began, the North American Division encompassed all of the United States and Canada. Within these geographical boundaries were ten union conferences, organized to oversee the affairs of sixty local conferences and missions (General Conference, 1977). Collectively, the sixty local conference school systems thus

There are, at the time of this writing, nine union conferences in the North American Division. The Central and Northern Union Conferences have merged to become the Mid-America Union Conference ("Two Unions Vote to Merge," 1980, p. 24). Some local conference mergers have also taken place, and more are under consideration.
defined operated more than 1000 schools and employed nearly 3500 professional personnel (General Conference, 1979).

The sample in this study consisted of selected K-10 teachers, teacher/principals, principals, supervisors, and superintendents in two union conferences, subject to the exclusions and additions enumerated below. The Central Union Conference was comprised of six local conferences: Central States, Colorado, Kansas, Missouri, Nebraska, and Wyoming. The Lake Union Conference included five local conferences: Illinois, Indiana, Lake Region, Michigan, and Wisconsin. Nine of the eleven conferences encompassed the state territories suggested by their names; while two, the Central States and Lake Region Conferences, chiefly serving the black constituencies in their respective unions, possessed multi-state boundaries and were therefore excluded.

Sample selection was made primarily on the basis of availability. Given the declared interest and support of the two union conference directors of education and the cooperative spirit of nine local conference superintendents, it was believed that the limitations of a non-random sample would be largely overcome by the markedly high response rate. Subsequent results, as reported elsewhere in this chapter, confirmed the reality of that assumption.

Certain other delimitations were placed on the sample. Teacher aides, personnel with unspecified subject or grade assignments, and miscellaneous service personnel were excluded, as were those ninth- and tenth-grade teachers assigned to twelve-grade academies (high schools). Twenty-three additional subjects were subsequently included on the basis of one or more criteria: (1) specific mention by several respondents as individuals closely involved in employment processes; (2)
recent retirees previously involved in recruitment tasks within the two union conferences represented; and (3) individuals employed within either union at the time of initial sample selection but subsequently moved elsewhere.

Two documents were used to identify potential members of the sample. The Central Union Conference *1979-80 Directory* (1979b) listed 334 individuals which were, in some way, connected with the K-12 educational program. The Lake Union Conference *1979-80 K-12 Educational Directory* (1979) identified 651 individuals directly involved in its program. When the delimiting criteria were applied, 182 subjects were adjudged eligible in the Central Union, while 316 met the criteria in the Lake Union.

When data collection began, the sample size stood at 498. With the subsequent inclusion of 23 additional subjects (on the basis of guidelines previously described), total sample size for this study reached 521. Table 1 provides the distribution of subjects by conference and professional position. In terms of school size, the sample was comprised of 87 one-teacher, 58 two-teacher, 20 three-teacher, 12 four-teacher, and 25 five-teacher-plus schools.

The heterogenous nature of the sample was clearly demonstrated by the finding that Central and Lake Union Conference educators included in the study had previously labored in forty-eight North American conferences, a number of self-supporting institutions, and many foreign countries, as well as the public sector (see table 2). The extraordinary cooperation of local conference superintendents further enhanced the validity of the sample. Utilizing the collection techniques described in this chapter, usable data were garnered from 486
of the 521 potential subjects, for a response rate in excess of 93 per­
cent (see table 4, p. 69). It is argued, therefore, that the hetero­
genreity of the sample and the extraordinarily high response rate permit
reasonable generalizations to the larger population.

TABLE 1
DISTRIBUTION OF THE STUDY SAMPLE BY CONFERENCE
AND PROFESSIONAL POSITION

<table>
<thead>
<tr>
<th>Conference</th>
<th>Tchr</th>
<th>Tchr/Prin</th>
<th>Prin</th>
<th>Supv</th>
<th>Supt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>56</td>
<td>16</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Illinois</td>
<td>51</td>
<td>12</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Indiana</td>
<td>31</td>
<td>11</td>
<td>--</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Kansas</td>
<td>10</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Michigan</td>
<td>134</td>
<td>30</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Missouri</td>
<td>31</td>
<td>7</td>
<td>--</td>
<td>--</td>
<td>1</td>
</tr>
<tr>
<td>Nebraska</td>
<td>29</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>27</td>
<td>11</td>
<td>--</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Wyoming</td>
<td>11</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>6</td>
<td>--</td>
<td>1</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Totals</td>
<td>386</td>
<td>95</td>
<td>11</td>
<td>10</td>
<td>19</td>
</tr>
</tbody>
</table>

*Includes retirees and/or transferred personnel (the 23 additional subjects described on page 59) categorized on the basis of their prior positions within the union conferences.

The Variables under Study

The variables examined were eleven in number, four of which
were temperament constructs as measured by the Temperament Inventory
(TI). The remaining seven were selection variables which enabled
### TABLE 2
DISTRIBUTION OF THE STUDY SAMPLE BY PRIOR GEOGRAPHIC LOCATION

<table>
<thead>
<tr>
<th>Geographic Location*</th>
<th>Number of Subjects</th>
<th>Geographic Location*</th>
<th>Number of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama/Mississippi</td>
<td>2</td>
<td>New York</td>
<td>2</td>
</tr>
<tr>
<td>Alaska</td>
<td>1</td>
<td>North Dakota</td>
<td>5</td>
</tr>
<tr>
<td>Allegheny East</td>
<td>1</td>
<td>Northern California</td>
<td>3</td>
</tr>
<tr>
<td>Allegheny West</td>
<td>1</td>
<td>Northern New England</td>
<td>9</td>
</tr>
<tr>
<td>Arizona</td>
<td>2</td>
<td>Ohio</td>
<td>8</td>
</tr>
<tr>
<td>Carolina</td>
<td>5</td>
<td>Oklahoma</td>
<td>8</td>
</tr>
<tr>
<td>Central California</td>
<td>3</td>
<td>Ontario/Quebec</td>
<td>1</td>
</tr>
<tr>
<td>Colorado</td>
<td>9</td>
<td>Oregon</td>
<td>4</td>
</tr>
<tr>
<td>Florida</td>
<td>10</td>
<td>Pennsylvania</td>
<td>1</td>
</tr>
<tr>
<td>Georgia/Cumberland</td>
<td>4</td>
<td>Potomac</td>
<td>8</td>
</tr>
<tr>
<td>Greater New York</td>
<td>8</td>
<td>South Dakota</td>
<td>3</td>
</tr>
<tr>
<td>Hawaii</td>
<td>2</td>
<td>Southeastern California</td>
<td>8</td>
</tr>
<tr>
<td>Illinois</td>
<td>17</td>
<td>Southern California</td>
<td>8</td>
</tr>
<tr>
<td>Indiana</td>
<td>13</td>
<td>Southern New England</td>
<td>4</td>
</tr>
<tr>
<td>Iowa</td>
<td>6</td>
<td>Texas</td>
<td>4</td>
</tr>
<tr>
<td>Kansas</td>
<td>8</td>
<td>Texico</td>
<td>2</td>
</tr>
<tr>
<td>Kentucky/Tennessee</td>
<td>5</td>
<td>Upper Columbia</td>
<td>3</td>
</tr>
<tr>
<td>Lake Region</td>
<td>4</td>
<td>Washington</td>
<td>2</td>
</tr>
<tr>
<td>Michigan</td>
<td>12</td>
<td>West Virginia</td>
<td>2</td>
</tr>
<tr>
<td>Minnesota</td>
<td>3</td>
<td>Wisconsin</td>
<td>13</td>
</tr>
<tr>
<td>Missouri</td>
<td>11</td>
<td>Wyoming</td>
<td>4</td>
</tr>
<tr>
<td>Montana</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nebraska</td>
<td>8</td>
<td>Self-supporting SDA</td>
<td>2</td>
</tr>
<tr>
<td>Nevada/Utah</td>
<td>1</td>
<td>Public sector</td>
<td>16</td>
</tr>
<tr>
<td>New Jersey</td>
<td>4</td>
<td>Mission service</td>
<td>5</td>
</tr>
</tbody>
</table>

*Based on prior local conference
appropriate subject groupings for hypothesis testing. The eleven variables may be described as follows:

1. the phlegmatic temperament as measured by the TI
2. the sanguine temperament as measured by the TI
3. the choleric temperament as measured by the TI
4. the melancholy temperament as measured by the TI
5. selection for advancement within the organization
6. grade level assignment
7. school size as measured by the total number of instructional personnel on the staff
8. comparative levels of professional competence as subjectively rated by supervisory personnel
9. the degree of job stability as measured by the average number of years in one location
10. the rate of personnel turnover within an organization as measured by the percentage of replaced or "new" staff
11. sex.

**Instrumentation**

Two instruments were used to collect the data necessary for hypothesis testing: (1) a simple, researcher-designed coversheet to gather the demographic information required; and (2) the Temperament Inventory, to garner appropriate data for use as the personality profile variables. Copies of each instrument may be found in appendix A.

**Demographic information sheet**

Used as an attached coversheet with the Temperament Inventory, this questionnaire provided demographic data for grouping subjects in
accordance with the various hypotheses employed. Though much of the
required information was available in local conference files, a direct
query of each subject appeared to offer the simplest, most reliable
means of demographic data collection.

The information sheet consisted of multiple-choice and fill-in-
the-blank questions which requested the following information: present
and prior positions; present, prior, and preferred school size; present
and preferred grade levels; prior conference; length of denominational
service; number of moves; and the person(s) most responsible for re-
cruiting and assignment. The data supplied by the questionnaire was
supplemented with general information appearing on the cover of the
Temperament Inventory (i.e., name, address, telephone number, and sex).

The Temperament Inventory

The Temperament Inventory (TI) was developed by Cruise and
Blitchington (1977; Blitchington & Cruise, 1979; Cruise, Blitchington
& Futcher, 1980), and is designed to assess personality traits in terms
of four dimensions of human temperament: phlegmatic, sanguine, cho-
leric, and melancholy. The chief characteristics ascribed to each
temperament are listed in table 3. Some variance does occur, so these
descriptors should not be viewed as rigid parameters of each trait.

The TI is, in essence, a refinement of the Eysenck Personality
Inventory, in which Eysenck and Eysenck (1963) used two continuums--
extraversion/introversion and stability/neuroticism--to evaluate the
four-temperament theory in terms of two orthogonally defined dimensions.
The authors of the TI believe that they have "gone a little bit beyond
Eysenck's work in that [their] test allows you to see your scores on
all four of the temperament scales whereas Eysenck's approach gives you a score on one temperament only" (Blitchington & Cruise, 1979, p. 15). The provision for profiling an individual's unique pattern of primary and secondary propensities was deemed a valuable asset in the context of this study.

**TABLE 3**

CHIEF CHARACTERISTICS ASCRIBED TO EACH TEMPERAMENT TRAIT

<table>
<thead>
<tr>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
</tr>
</thead>
<tbody>
<tr>
<td>calm</td>
<td>sociable</td>
<td>active</td>
<td>moody</td>
</tr>
<tr>
<td>easy-going</td>
<td>outgoing</td>
<td>bold</td>
<td>sensitive</td>
</tr>
<tr>
<td>reliable</td>
<td>talkative</td>
<td>energetic</td>
<td>perfectionistic</td>
</tr>
<tr>
<td>diplomatic</td>
<td>lively</td>
<td>impulsive</td>
<td>creative</td>
</tr>
<tr>
<td>thoughtful</td>
<td>responsive</td>
<td>undecided</td>
<td>reserved</td>
</tr>
<tr>
<td>bland</td>
<td>cheerful</td>
<td>insensitive</td>
<td>sober</td>
</tr>
<tr>
<td>careful</td>
<td>unorganized</td>
<td>aggressive</td>
<td>emotional</td>
</tr>
<tr>
<td>controlled</td>
<td>carefree</td>
<td>excitable</td>
<td>anxious</td>
</tr>
<tr>
<td>flexible</td>
<td>distractible</td>
<td>restless</td>
<td>rigid</td>
</tr>
<tr>
<td>listless</td>
<td>expressive</td>
<td>irritable</td>
<td>conscientious</td>
</tr>
</tbody>
</table>

SOURCES: Blitchington & Cruise, 1979; Eysenck & Eysenck, 1963

The TI possesses other significant advantages which assured its selection. It is relatively brief (80 yes/no responses), is easily administered in a group setting, and has simple overlay stencils available for scoring. Though the instrument is quite new, reliability and validity have been documented (Cruise, Blitchington & Futcher, 1980), and the potential problems of answer falsification do not appear to be great given its popular-use orientation and innocuous terminology.

**Reliability of the Temperament Inventory.** Split-half reliability (internal consistency) of the TI has been evaluated by the authors
using Cronbach's Coefficient Alpha (1951), and coefficients range from .84 on the choleric dimension to .90 on the sanguine characteristic. Phlegmatic and melancholy traits proved internally reliable at the .88 level (Cruise, Blitchington & Futcher, 1980, pp. 949-50). These results were judged to be more than adequate for the present application of the TI.

**Validity of the Temperament Inventory.** Three kinds of validity have been examined with respect to the TI: content, construct, and concurrent. Each is discussed briefly.

Content validity is concerned with the correlation of a measurement scale and the factors which that scale is presumed to measure. The items adopted for use in the TI were evaluated by six judges for their content validity, and were required to meet three criteria: (1) relevance as true measures of temperament; (2) consistency with accepted definitions of the four temperaments; and (3) careful, precise wording (Cruise, Blitchington & Futcher, 1980, p. 950).

Construct validity concerns itself with whether or not the instrument and its underlying theoretical framework are compatible. The TI was subjected to factor analyses and four factors emerged which appeared compatible with the Hippocratic model, suggesting the validity of the instrument as a measure of phlegmatic, sanguine, choleric, and melancholy temperaments (Cruise, Blitchington & Futcher, 1980, p. 950).

Concurrent validity refers to the degree of correlation between scales from various instruments which are purported to measure similar factors. The Eysenck Personality Inventory (EPI) (Eysenck & Eysenck, 1963) most closely resembles the TI in theoretical undergirding and practical application, though the EPI has only two scales while the TI
possesses four. Cruise, Blitchington, and Futcher (1980) approached the problem by adopting two procedures: (1) projecting the "four TI scores of the validation sample to their two EPI dimensions" and (2) relating the "two EPI scores to the four TI dimensions" (p. 950). At the time this task was undertaken, 1533 subjects had responded to both the EPI and the TI.

Each procedure was executed twice, once using the factor scores obtained from a factor analysis program, and again using factor scores derived by simple summation. Employing transformational techniques to project the TI scores to their EPI dimensions, demonstrated correlations ranged from .474 to .632 (Cruise, Blitchington & Futcher, 1980, p. 951). Relating the EPI dimensions to the TI scores also produced significant results: agreement on two factors in 34 percent of the cases, agreement on one factor in 61 percent, and no agreement in only 5 percent of the attempted comparisons (p. 953). The demonstrably pronounced compatibility of factors on both the EPI and TI lends credence to the graphic procedures adopted for this study and described in chapter IV.

In sum, it may be said that content, construct, and concurrent validity were considered satisfactory for the projected use of the TI; though the reported methodology supporting content validity appeared weak. Given the advantages cited earlier, the TI was indeed chosen as the primary instrument for this study. Actual data collection procedures are detailed below.

Methodological Procedures

Data collection

The data collection process began in early August 1979, with a
letter to the Director of Education for the Lake Union Conference (a copy is found in appendix B). Accompanying the letter were sufficient copies of the Temperament Inventory (TI) to accommodate 325 participants, and multiple copies of detailed instructions for proctoring the instrument (see appendix B).

Annual, regularly scheduled, local conference teachers' conventions served as the settings for administration of the TI. These drive-in sessions were conducted at various times during a four-week period beginning in late August. The detailed instructions constituted an attempt to provide consistency throughout, regardless of the individual assigned to conduct each session. Approximately two weeks following the final convention, the Director of Education shipped the completed instruments to the researcher for scoring.

Meanwhile, a similar process was underway in the Central Union Conference, subject to some variations in timing and procedure. The researcher personally administered the TI at the Colorado and Wyoming teachers' conventions held in late August and early September. Kansas, Missouri, and Nebraska educators completed their copies of the instrument at winter drive-in meetings, which represented the first available group sessions for each conference. Proctoring was the responsibility of the local conference superintendents, using the detailed written instructions previously mentioned.

The latter part of February 1980 brought completion of all group administrations of the TI; and, in keeping with a commitment made to the participants, a thank-you letter, personal scores, and explanatory notes were returned during the next several weeks, in sealed envelopes, via the local conference offices. Copies of the letter and interpretive
notes are found in appendix B.

Yet remaining were follow-up contacts with two groups—those individuals who were, for one reason or another, unavailable at convention time, and those who were mentioned on the completed coversheets as former recruiters and/or supervisors (i.e., the twenty-three additional subjects described on p. 59). Accordingly, two letters were prepared and mailed, with copies of the TI and a self-addressed, stamped envelope, to eligible participants. Responses to the mailing trickled in during the next several weeks; and, in some cases, follow-up telephone calls were employed. The final contacts were personal visits with several administrators who had somehow overlooked previous written requests to participate.

Eleven months elapsed between the first letter to the Lake Union Conference Director of Education and the final mailing of the TI scores to subsequent respondents. A comparison of the initially proposed sample and actual participation is provided in table 4. The overall response rate was 93.28 percent. Given the generally accepted view that human temperaments are relatively stable (a theme developed in chapter II), the rather lengthy period encompassed by the data collection process was not deemed a serious limitation in the methodological design.

Data processing

Upon receipt, all data were assembled in a fashion suitable for analysis. The inventories were hand-scored twice, using masks published for that purpose, and the resultant raw scores were entered on-line in the computer. Demographic data were also compiled, translated, where
necessary for statistical analyses, into numeric form, and entered in
the computer.

### TABLE 4
COMPARISONS OF PROPOSED SAMPLE SIZES
AND ACTUAL PARTICIPATION

<table>
<thead>
<tr>
<th>Professional Position</th>
<th>Proposed Sample Size</th>
<th>Actual Sample Size*</th>
<th>Response Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>386</td>
<td>367</td>
<td>95.1</td>
</tr>
<tr>
<td>Teacher/Principals</td>
<td>95</td>
<td>88</td>
<td>92.6</td>
</tr>
<tr>
<td>Principals</td>
<td>11</td>
<td>7</td>
<td>63.6</td>
</tr>
<tr>
<td>Supervisors</td>
<td>10</td>
<td>8</td>
<td>80.0</td>
</tr>
<tr>
<td>Superintendents</td>
<td>19</td>
<td>16</td>
<td>84.2</td>
</tr>
<tr>
<td>Totals</td>
<td>521</td>
<td>486</td>
<td>93.3</td>
</tr>
</tbody>
</table>

*Includes retirees and/or transferred personnel (the 23 additional subjects described on page 59) categorized on the basis of their prior positions.

Preparation of the demographic data required unanticipated interpretive judgments in a number of instances. Certain criteria were arbitrarily established to promote consistency and meaningfulness in the subsequent analyses. The explanations which follow are referenced by item number to the demographic information sheet exhibited in appendix A.

Item 1, for example, asked for the employee's present position in a multiple-choice format—presumably a straightforward decision. Some teachers employed in one-room schools, however, conceived of
themselves as teacher/principals, while others simply chose the teacher appellation. In codifying the data, the decision was made to consider all teachers in one-room schools (indicated in item 3) as just that—teachers. Similar adjustments were made in item 2 by comparing it with item 4.

A second unexpected difficulty appeared in the responses to item 5. A number of respondents marked more than one preference in terms of school size, but his problem was easily dealt with by assigning additional codes to the data before they were entered in the computer.

A final surprise occurred in the responses to items 11 and 12. The intention was to match, where possible, the profiles of active recruiters (generally superintendents) with the profiles of their recruits. A number of respondents, however, considered "God" or "the Lord" as the chief recruiter of their experience, and marked the items accordingly. Given the generally recognized commitment of Adventist educators to the mission of the Church (e.g., Stone, 1970), and the personal relationship many possess with their God, it was, in retrospect, not surprising that a number would respond in that way. Consequently, a code was assigned to all responses which credited divine intervention in the recruitment process, thereby permitting a subsequent look at an incidental finding of some interest.

**Data Analysis**

The first step in data analysis was the selection of appropriate statistical tests. To facilitate this task, the operational hypotheses stated in chapter I were reiterated in null form:
1. No statistically significant relationship exists between the personalities of educators and the personalities of the administrators responsible for hiring them.

2. No statistically significant relationship exists between the personalities of teachers and their grade-level assignments.

3. No statistically significant relationship exists between the personalities of educators and the size of school to which they are assigned.

4. No statistically significant relationship exists between the personalities of educators and their perceived levels of competence.

5. No statistically significant relationship exists between the personalities of educators judged "most competent" and the personalities of the supervisors or administrators passing judgment.

6. No statistically significant relationship exists between the personalities of educators and their opportunities for advancement.

7. No statistically significant relationship exists between the personalities of educators chosen for advancement and the personalities of the administrators responsible for choosing them.

8. No statistically significant relationship exists between the personalities of educators and their records of job stability.

9. No statistically significant relationship exists between the personalities of school-system administrators and the rates of personnel turnover in the organizations which they administer.

Following careful examination of the foregoing hypotheses, Cattell's Coefficient of Pattern Similarity ($r_p$) was selected as the primary method of data analysis. As implied in its title, this procedure enabled the researcher to examine the relationships between
temperament profiles, as opposed to isolated views of single traits. Negative correlations (with a maximum of -1.0) indicated profile dissimilarities, positive correlations (with a maximum of +1.0) indicated profile similarities, and correlations near 0.0 indicated chance differences (Cattell, 1969).

Cattell's $r_p$ examined the profile similarities between groups in terms of three considerations: level, variance, and peakedness. Level simply refers to the means of the scores on the TI, or the "height" of the responses; variance refers to the overall shape or pattern of the profiles; and peakedness deals with the accentuational differences between profiles (Cattell, 1969; Helmstadter, 1957). Thus $r_p$ provided composite views of the data in light of all three dimensions. In those instances where pronounced profile relationships were seen to exist, each of the four temperament traits was examined independently by the use of graphic comparisons (see chapter IV, p. 76).

Cruise (1975) developed a computer program for use in conjunction with $r_p$ analyses. He suggested that the "profiles with which we deal should be restricted to those in which measurement parts are along independent dimensions" (p. 1), a condition met by the nature and construct validity of the Temperament Inventory. The usefulness of the program was further enhanced by the fact that the "Chi-square table and significance levels of $r_p$ [were] part of the program" (p. 1).

A .05-level criterion of significance was adopted for this study. The null hypotheses were therefore rejected when values of $r_p$ exhibited associated probabilities equal to or less than 5 percent. The results of the hypothesis tests are reported in chapter IV.
Limitations of the Study

Some limitations beyond the reasonable control of the researcher influenced the outcomes of the study. All of these, regardless of source, affected the nature and generalizability of subsequent conclusions. Each was obliquely mentioned in this chapter, but they are summarized here in the interest of convenience and clarity.

The first limitation was posed by the necessity of non-random sampling, given the rather pronounced restraints on subject availability. Lack of randomization was partially overcome by the high response rate and demonstrated heterogeneity of the sample.

A small number of subjects in some subgroups of the sample constituted a second limitation. Once again, however, given the nature of the available sample, no ready solution was apparent. An expansion of the sample to some 23 former administrators (see page 59) eased the difficulty to some degree. It was also noted that application of Cattell's $r_p$ in single-member/group comparisons is not without precedent and at least some degree of validity (Cattell, 1970). This limitation did indeed affect the testing of hypothesis nine, as explained in chapter IV.

Finally, the third limitation reflected the generally unknown personality characteristics of educators as a unique population, and the ability of the Temperament Inventory (TI) to sufficiently distinguish between subgroups of that population. Arguments presented in chapters II and III on behalf of the temperament construct suggested that the TI was indeed capable of making such distinctions. It should also be remembered that one of the tasks undertaken in the study was to
provide a profile of the sample in toto, so lack of a referent norm was not of particular significance.

Summary

The sample for this study consisted of 521 educators in the K-10 educational system of the Seventh-day Adventist Church in North America. Non-random sample selection, primarily on the basis of availability, was countered by a 93-percent-plus response rate and the evident mobility of the participants.

Two instruments, a researcher-designed demographic questionnaire and the Temperament Inventory developed by Cruise and Blitchington (1977), were utilized to collect data concerning eleven distinct variables, four of which were the temperament variables (phlegmatic, sanguine, choleric, and melancholy) under special study. The remaining variables enabled appropriate subject groupings to test each hypothesis.

Cattell's Coefficient of Pattern Similarity (1969) was adopted as the chief method of data analysis, supplemented by graphic portrayals of the personality profiles. A computer adaptation of Cattell's r_p (Cruise, 1975) permitted efficient testing of the hypotheses.

Three limitations in methodology were seen as constraints on the generalizability of results: non-random sampling, small numbers of subjects in some subgroups, and the efficacy of the Temperament Inventory. Arguments countering each limitation were presented.
CHAPTER IV

PRESENTATION OF DATA

The declared purpose of this study was to examine the relationships between personality and various aspects of personnel administration in the K-10 school system of the Seventh-day Adventist Church; and, in so doing, to profile the temperament traits of denominational educators on the basis of occupationally relevant selection variables.

A sample of 521 teachers, teacher/principals, principals, supervisors, and superintendents completed the Temperament Inventory and an attached demographic questionnaire. Data thus obtained were subjected to profile analyses, by which various subgroups of the sample were compared. The hypotheses were tested utilizing Cattell's (1969) Coefficient of Pattern Similarity ($r_p$).¹

The presentation of data begins with a brief description of the decision-making criteria and graphic techniques employed throughout the chapter, followed by a generalized portrayal of the personality profiles found to be associated with the sample and its major subgroups. A subsequent section presents the profiles and test results associated with each hypothesis; and a final statement summarizes the chapter contents as a whole.

¹A detailed account of the methodological procedures utilized, including descriptions of the population and sample, instrumentation, and statistical techniques, is presented in chapter III.
Interpretation of the Data

The Temperament Inventory was developed on the premise that profiled analyses of the four temperament traits are of more practical, realistic value than isolated views of single factors. The authors argue the validity of their approach "because the traits and behaviors usually associated with one temperament can be modified . . . depending upon the secondary temperament(s)" (Blitchington & Cruise, 1979, p. 15). The procedures utilized in this presentation reflect the amenability of the personality variables to statistical and graphical profile analyses. A few salient points aid in understanding the remainder of this chapter.

Statistical results

The $r_p$ test statistic permitted a comparison of profiles in light of their unique levels, variances, and degrees of peakedness. Prior to the analyses, a confidence level of .05 was adopted as the significance criterion. Acceptance or rejection of the null hypothesis in each test was predicated on this standard.

Summary tables of the statistical results are presented in proximity to the narratives associated with each test. Each table reports the data relevant to all tests of the particular hypothesis under consideration.

Graphic portrayal of the profiles

Given the "practical" orientation of the entire study, a simple yet effective means of portraying group profiles was deemed desirable. The scheme delineated by Eysenck and Eysenck (1963) and subsequently...
expanded by Cruise, Blitchington, and Futcher (1980) was selected as an appropriate graphic device (see figure 1, p. 27; also pp. 65-66).

To display each of the four temperament variables in a meaningful, correspondent way, conversion of raw score means to percentiles was necessary. Table 23 (p. 218) provided the data for that task. In those instances where raw score means were fractional, interpolation was used to assign the nearest percentile value.

Both direct and interpolated percentiles resulting from the raw score conversions were plotted on appropriate axes of the graphs and connecting lines were drawn. The resultant figures were bisected on each of four sides, and lines of intersection were used to pinpoint the relative positions of each profile with respect to the introversion/extraversion (I/E) and instability/stability (I/S) axes. It is emphasized that the I/E and I/S axes have no known percentile equivalencies to the axes of the four temperament traits, but they nonetheless depict interesting relationships.

The center point of each graph represents the origin or zero value. Each marked increment extending outward along the temperament axes designates a percentile increase of ten. As the correlation between two profiles approaches +1.0, the two quadrilaterals increasingly assume a superimposed appearance. As \( r_p \) approaches -1.0, the two figures appear increasingly dissimilar. Insignificant relationships result in profiles positioned somewhere between the two extremes. Values along the temperament axes are concrete. The areas encompassed by the line segments in each quadrant, however, are of no known statistical significance.

To facilitate the readability of this chapter, only tabled data
are incorporated in the text. All graphic portrayals of the personality profiles associated with each hypothesis are relegated to appendix C and referenced by number.

General Characteristics of the Sample

The instrumentation utilized in this study provided abundant data with which to characterize the sample and its various subgroups. Personality profiles were easily obtained by isolating one or more selection variables and generating raw score means for each temperament trait. Graphic and narrative descriptions of these generalized profiles provided an important contextual framework for interpreting subsequent hypothesis tests.

An overview of the sample was achieved by profiling the traits of the respondents as a whole. Additional profiles, on the basis of sex, geographic region, professional position, and years of experience, provided the added perspective deemed necessary.

Profile of the sample as a whole

A composite profile of the 486 educators revealed a closely balanced primary/secondary trait pattern. Choleric tendencies were marginally primary (67th percentile), with phlegmatic traits a close second (63rd percentile). Sanguine characteristics of the entire group hovered at the 50th percentile, while melancholy propensities remained well under that level (36th percentile). Figure 2 provided a graphic representation of this profile; table 5 summarizes the supporting data.

Profiles by sex

The sample was also profiled by sex, using the TI scores of
### TABLE 5

PERSONALITY PROFILE OF THE SAMPLE AS A WHOLE

<table>
<thead>
<tr>
<th></th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All respondents</td>
<td>486</td>
<td>13.27 (63)</td>
<td>13.64 (50)</td>
<td>16.24 (67)</td>
</tr>
</tbody>
</table>

### TABLE 6

PERSONALITY PROFILES BY SEX

<table>
<thead>
<tr>
<th>Sex</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>$r_p$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>207</td>
<td>14.06 (68)</td>
<td>14.09 (53)</td>
<td>15.95 (65)</td>
<td>8.25 (34)</td>
<td>-0.722</td>
<td>.01</td>
</tr>
<tr>
<td>Female</td>
<td>274</td>
<td>12.68 (59)</td>
<td>13.30 (48)</td>
<td>16.46 (69)</td>
<td>9.04 (38)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
207 male and 274 female respondents. Males were found to be predominantly phlegmatic in temperament (68th percentile), with a strong secondary choleric trait (65th percentile). Females, on the other hand, revealed a primary choleric bent (69th percentile), with secondary phlegmatic characteristics (59th percentile). The female subjects were slightly less sanguine than the males (48th vs. 53rd percentiles), while somewhat more melancholy (38th vs. 34th percentiles).

A hypothesis concerning the correlation between personality and sex was not advanced at the outset of the study, but it was nonetheless interesting to note that a subsequent test of this relationship produced an $r_p = -0.722$, with an associated probability of 1 percent. The profiles of male and female educators in this sample are indeed dissimilar. Figure 3 provides a graphic representation of these profiles; table 6 offers a summary of the supporting data.

Profiles by geographic region

As reported in chapter III, limitation of the sample to two union conferences prompted some anxiety. The demographic heterogeneity of the sample was defended, however, on the basis of widespread personnel movement and a high response rate (see pp. 59-60). The argument was further enhanced when the personality profiles of Central and Lake Union Conference employees were compared.

The profiles of both groups revealed similar traits: high choleric and phlegmatic tendencies (66th and 62nd percentiles for the

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1In this, as in all instances where a discrepancy exists between the total number of subjects in the sample and the number of respondents in a subgroup, the difference lies in a failure on the part of some subjects to respond to a particular questionnaire item.
Central Union; 67th and 63rd percentiles for the Lake Union), midrange sanguine characteristics (50th percentiles for both unions), and comparatively weak melancholy propensities (40th percentile for CU; 35th percentile for LU).

A test of the relationship between personality and geographical location by union conference produced an $r_p = -.060$, with an associated probability in excess of 10 percent. No significant correlation exists, thereby underscoring the heterogenous nature of the sample. Figure 4 provides a graphic representation of these profiles; table 7 offers a summary of the supporting data.

Profiles by professional position

A third demographic variable of considerable interest was that of professional position. Five occupational distinctions were made in this category: teacher, teacher/principal, principal, supervisor, and superintendent. Some discretion was exercised following the data collection process in assigning respondents to the teacher/principal category. Teacher/principals were described as those subjects employed in schools with two or more teaching staff members and additionally performing administrative duties (see pp. 69-70).

The first profiles generated compared 451 educators engaged in teaching responsibilities (i.e., teachers and teacher/principals) with 31 individuals performing non-teaching functions (i.e., principals, supervisors, and superintendents). The teaching personnel exhibited a choleric/phlegmatic profile (66th and 62nd percentiles, respectively) tempered by considerably weaker sanguine characteristics (49th percentile) and even more diminutive melancholy traits (38th percentile).
TABLE 7
PERSONALITY PROFILES BY GEOGRAPHIC REGION

<table>
<thead>
<tr>
<th>Union Conference</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>( r_p )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Lake</td>
<td>170</td>
<td>13.14 (62)</td>
<td>13.54 (50)</td>
<td>16.13 (66)</td>
<td>9.30 (40)</td>
<td>-.060</td>
<td>.10+</td>
</tr>
<tr>
<td></td>
<td>303</td>
<td>13.28 (63)</td>
<td>13.64 (50)</td>
<td>16.21 (67)</td>
<td>8.38 (35)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 8
PERSONALITY PROFILES BY PROFESSIONAL POSITION
(Teaching vs. Non-teaching)

<table>
<thead>
<tr>
<th>Professional Position</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>( r_p )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>451</td>
<td>13.16 (62)</td>
<td>13.44 (49)</td>
<td>16.12 (66)</td>
<td>8.90 (38)</td>
<td>-.956</td>
<td>.01</td>
</tr>
<tr>
<td>Non-teaching</td>
<td>31</td>
<td>14.61 (72)</td>
<td>16.58 (67)</td>
<td>17.87 (82)</td>
<td>5.48 (19)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A profile of the non-teaching personnel revealed a similar, but much stronger, primary/secondary trait pattern. Choleric propensities at the 82nd percentile level were modified by prominent phlegmatic (72nd percentile) and sanguine (67th percentile) characteristics. The supervisors and administrators were also much weaker in melancholy tendencies (19th percentile) than the teaching personnel.

A significance test of this relationship produced an $r_p = -0.956$, with an associated probability of less than 1 percent. The personalities of teaching and non-teaching personnel were found to be distinctly dissimilar. Figure 5 provides a graphic portrayal of the profiles in question; table 8 offers a summary of the data.

Ten additional comparisons were effected, correlating the personality profiles of each of the five occupational groups with those of all remaining classifications. As might be expected in light of the data presented above, two of the correlations revealed significant positive relationships (i.e., teachers with teacher/principals and principals with superintendents). Somewhat surprising, however, were the consistently significant negative correlations between the personalities of supervisors and other personnel, both teaching and non-teaching. The supervisors were found to be choleric/sanguines (84th and 60th percentiles, respectively) in their primary/secondary trait pattern, a designation not shared by any other positional grouping. Supervisors were also the weakest in phlegmatic propensities (60th percentile).

All remaining coefficients were negative. Figures 6-15 offer graphic representations of these comparisons; table 9 summarizes the associated data.
<table>
<thead>
<tr>
<th>Professional Position</th>
<th>n</th>
<th>Raw Score Means &amp; (Percentiles)</th>
<th>r_p</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>363</td>
<td>Phlegmatic 13.07 (61)</td>
<td>Sanguine 13.41 (49)</td>
<td>Choleric 16.08 (66)</td>
</tr>
<tr>
<td>Teacher/Principals</td>
<td>88</td>
<td>13.56 (65)</td>
<td>13.57 (50)</td>
<td>16.25 (67)</td>
</tr>
<tr>
<td>Principals</td>
<td>10</td>
<td>15.14 (75)</td>
<td>17.00 (70)</td>
<td>17.57 (79)</td>
</tr>
<tr>
<td>Teachers</td>
<td>363</td>
<td>13.07 (61)</td>
<td>13.41 (49)</td>
<td>16.08 (66)</td>
</tr>
<tr>
<td>Supervisors</td>
<td>8</td>
<td>12.75 (60)</td>
<td>15.87 (62)</td>
<td>18.13 (84)</td>
</tr>
<tr>
<td>Teachers</td>
<td>363</td>
<td>13.07 (61)</td>
<td>13.41 (49)</td>
<td>16.08 (66)</td>
</tr>
<tr>
<td>Superintendent</td>
<td>17</td>
<td>15.31 (76)</td>
<td>16.75 (68)</td>
<td>17.87 (82)</td>
</tr>
<tr>
<td>Teacher/Principals</td>
<td>88</td>
<td>13.56 (65)</td>
<td>13.57 (50)</td>
<td>16.25 (67)</td>
</tr>
<tr>
<td>Principals</td>
<td>10</td>
<td>15.14 (75)</td>
<td>17.00 (70)</td>
<td>17.57 (79)</td>
</tr>
<tr>
<td>Teacher/Principals</td>
<td>88</td>
<td>13.56 (65)</td>
<td>13.57 (50)</td>
<td>16.25 (67)</td>
</tr>
<tr>
<td>Supervisors</td>
<td>17</td>
<td>15.31 (76)</td>
<td>16.75 (68)</td>
<td>17.87 (82)</td>
</tr>
<tr>
<td>Principals</td>
<td>10</td>
<td>15.14 (75)</td>
<td>17.00 (70)</td>
<td>17.57 (79)</td>
</tr>
<tr>
<td>Superintendents</td>
<td>17</td>
<td>15.31 (76)</td>
<td>16.75 (68)</td>
<td>17.87 (82)</td>
</tr>
<tr>
<td>Supervisors</td>
<td>8</td>
<td>12.75 (60)</td>
<td>15.87 (62)</td>
<td>18.13 (84)</td>
</tr>
</tbody>
</table>
Profiles by years of experience

A final generalized analysis of the sample was that premised on years of denominational service. Responses on the demographic questionnaire ranged from 1 to 41 years. Total years of Church employ served as the selection variable in this instance, with five-year increments assigned to four of the six categories, as indicated in table 10. Subjects with 1 to 5 years represented the largest segment of the sample (39 percent), while educators with 31 or more years of experience constituted the smallest group (5 percent).

Fifteen comparisons were generated using the six categories thus defined. Educators with 1 to 5 years of service were found to possess personalities significantly similar to those revealed by educators with 11 to 15 years of experience ($r_p = +.723$, $p = .05$). The remaining tests produced coefficients ranging from $-.460$ to $+.422$, with associated probabilities in excess of 10 percent. A meaningful relationship between personality and years of service was not found. Figure 16 depicts the significant test; table 10 summarizes the data.

Tests of the Hypotheses

Subsequent to an examination of the generalized profiles just presented, actual tests of the nine hypotheses were conducted. In each instance, multiple tests were undertaken. The following narrative clearly specifies the parameters of each correlation and relates all findings to the specific hypothesis being subjected to testing. The results are presented in a sequence compatible with the outline of hypotheses detailed in chapter I (pp. 7-8), and reiterated, in null form, in chapter III (p. 71).
<table>
<thead>
<tr>
<th>Years of Experience</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>$r_p$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>168</td>
<td>13.29 (63)</td>
<td>13.70 (50)</td>
<td>15.90 (64)</td>
<td>9.04 (38)</td>
<td>+.442</td>
<td>.10+</td>
</tr>
<tr>
<td>6-10</td>
<td>109</td>
<td>13.26 (63)</td>
<td>13.11 (48)</td>
<td>15.91 (64)</td>
<td>8.63 (36)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>168</td>
<td>13.29 (63)</td>
<td>13.70 (50)</td>
<td>15.90 (64)</td>
<td>9.04 (38)</td>
<td>+.723</td>
<td>.05</td>
</tr>
<tr>
<td>11-15</td>
<td>76</td>
<td>13.18 (62)</td>
<td>13.71 (51)</td>
<td>16.16 (66)</td>
<td>8.79 (37)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>168</td>
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<td>13.70 (50)</td>
<td>15.90 (64)</td>
<td>9.04 (38)</td>
<td>+.163</td>
<td>.10+</td>
</tr>
<tr>
<td>16-20</td>
<td>47</td>
<td>13.62 (65)</td>
<td>13.02 (47)</td>
<td>16.30 (68)</td>
<td>9.04 (38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>168</td>
<td>13.29 (63)</td>
<td>13.70 (50)</td>
<td>15.90 (64)</td>
<td>9.04 (38)</td>
<td>-.460</td>
<td>.10</td>
</tr>
<tr>
<td>21-30</td>
<td>58</td>
<td>13.50 (64)</td>
<td>13.84 (51)</td>
<td>16.74 (72)</td>
<td>7.59 (31)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5</td>
<td>168</td>
<td>13.29 (63)</td>
<td>13.70 (50)</td>
<td>15.90 (64)</td>
<td>9.04 (38)</td>
<td>-.148</td>
<td>.10+</td>
</tr>
<tr>
<td>31+</td>
<td>24</td>
<td>13.08 (62)</td>
<td>13.17 (48)</td>
<td>16.71 (71)</td>
<td>9.17 (39)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>109</td>
<td>13.26 (63)</td>
<td>13.11 (48)</td>
<td>15.91 (64)</td>
<td>8.63 (36)</td>
<td>+.424</td>
<td>.10+</td>
</tr>
<tr>
<td>11-15</td>
<td>76</td>
<td>13.18 (62)</td>
<td>13.71 (51)</td>
<td>16.16 (66)</td>
<td>8.79 (37)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>109</td>
<td>13.26 (63)</td>
<td>13.11 (48)</td>
<td>15.91 (64)</td>
<td>8.63 (36)</td>
<td>+.333</td>
<td>.10+</td>
</tr>
<tr>
<td>16-20</td>
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<td>13.02 (47)</td>
<td>16.30 (68)</td>
<td>9.04 (38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-10</td>
<td>109</td>
<td>13.26 (63)</td>
<td>13.11 (48)</td>
<td>15.91 (64)</td>
<td>8.63 (36)</td>
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<td>.10</td>
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<td>21-30</td>
<td>58</td>
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<td>13.84 (51)</td>
<td>16.74 (72)</td>
<td>7.59 (31)</td>
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<td></td>
</tr>
<tr>
<td>6-10</td>
<td>109</td>
<td>13.26 (63)</td>
<td>13.11 (48)</td>
<td>15.91 (64)</td>
<td>8.63 (36)</td>
<td>-.129</td>
<td>.10+</td>
</tr>
<tr>
<td>Years of Experience</td>
<td>n</td>
<td>Phlegmatic</td>
<td>Sanguine</td>
<td>Choleric</td>
<td>Melancholy</td>
<td>rp</td>
<td>p</td>
</tr>
<tr>
<td>---------------------</td>
<td>----</td>
<td>------------</td>
<td>----------</td>
<td>----------</td>
<td>------------</td>
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</tr>
<tr>
<td>11-15</td>
<td>76</td>
<td>13.18 (62)</td>
<td>13.71 (51)</td>
<td>16.16 (66)</td>
<td>8.79 (37)</td>
<td>+.228</td>
<td>.10+</td>
</tr>
<tr>
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<td>47</td>
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<td>13.02 (47)</td>
<td>16.30 (68)</td>
<td>9.04 (38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-15</td>
<td>76</td>
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<td>13.71 (51)</td>
<td>16.16 (66)</td>
<td>8.79 (37)</td>
<td>-.256</td>
<td>.10+</td>
</tr>
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<td>7.59 (31)</td>
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<tr>
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<td>13.71 (51)</td>
<td>16.16 (66)</td>
<td>8.79 (37)</td>
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<td>.10+</td>
</tr>
<tr>
<td>31+</td>
<td>24</td>
<td>13.08 (62)</td>
<td>13.17 (48)</td>
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Hypotheses related to personnel appointment

Hypothesis 1 speculated that no statistically significant relationship would be found between the personalities of educators and the personalities of the administrators responsible for hiring them. To examine the extent and nature of this relationship, a number of independent tests were conducted. Participants in the study were asked to designate, by name, the individuals deemed most responsible for placing them in their present positions. The temperament profiles of the recruiters were thus matched with the composite profiles of their respective recruitees.

Nine of the nineteen comparisons attempted proved insignificant, with coefficients ranging from -.471 to +.013 and the associated probabilities equal to or exceeding 10 percent. Nine comparisons produced significant negative values of $r_p$ (i.e., -.594 to -.823, with probabilities equal to or less than .05), while one significant positive relationship was discovered ($r_p = +.701, p = .05$). Figures 17-26 offer graphic portrayals of the significant tests of hypothesis one; table 11 summarizes the data pertaining to all nineteen comparisons.

In addition to the pre-established tests of the first hypothesis, an unexpected response option on the demographic questionnaire resulted in an incidental finding of considerable interest. Twenty-four of the respondents to item twelve on the coversheet (see appendix A) indicated their belief that "God" or "the Lord" was most responsible for their recruitment. The surprising spontaneity of these individuals prompted a comparison of their composite personality with that of the remaining participants.
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<th>Recruiter #002</th>
<th>Recruitees</th>
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<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>r_p</th>
<th>p</th>
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<td>.10+</td>
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<tr>
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<td>4</td>
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<td>12.41 (57) 13.45 (49) 16.21 (67) 10.07 (44)</td>
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<td>.10+</td>
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<td>28</td>
<td>13.21 (62) 12.75 (47) 16.75 (72) 9.46 (41)</td>
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<td>.01</td>
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<td>Recruitees</td>
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<td>15.50 (78) 15.00 (58) 18.00 (83) 5.00 (17)</td>
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<td>.05</td>
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<td>80</td>
<td>12.54 (58) 12.95 (47) 16.01 (65) 9.36 (40)</td>
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<td></td>
<td></td>
<td>-.724</td>
<td>.01</td>
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<tr>
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<td>Sanguine</td>
<td>Choleric</td>
<td>Melancholy</td>
<td>r_p</td>
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<tr>
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<td></td>
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</tr>
<tr>
<td>Recruitees</td>
<td>1 16.00 (81) 14.00 (52) 8.00 (14) 12.00 (54)</td>
<td>11.77 (54) 12.69 (45) 14.54 (52) 11.92 (54)</td>
<td>-0.594</td>
<td>0.02</td>
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<td></td>
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</tr>
<tr>
<td>Recruiter #184</td>
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<td>15.70 (79) 12.40 (44) 17.00 (74) 6.80 (27)</td>
<td>-0.357</td>
<td>0.10+</td>
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</tr>
<tr>
<td>Recruitees</td>
<td>2 16.00 (81) 18.00 (76) 14.00 (48) 2.00 (05)</td>
<td>13.55 (65) 14.55 (55) 15.14 (56) 9.27 (40)</td>
<td>-0.677</td>
<td>0.01</td>
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<tr>
<td>Recruiter #222</td>
<td>1 17.00 (88) 11.00 (37) 16.00 (65) 1.00 (02)</td>
<td>13.00 (61) 14.50 (55) 18.00 (83) 8.00 (33)</td>
<td>0.013</td>
<td>0.10+</td>
<td></td>
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<tr>
<td>Recruitees</td>
<td>2 13.00 (61) 18.00 (76) 14.00 (48) 3.00 (08)</td>
<td>14.40 (70) 10.40 (34) 15.00 (56) 9.50 (41)</td>
<td>-0.465</td>
<td>0.10</td>
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<tr>
<td>Recruiter #405</td>
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<td>-0.742</td>
<td>0.01</td>
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<tr>
<td>Recruitees</td>
<td>6 17.00 (94) 17.00 (70) 19.00 (91) 3.00 (08)</td>
<td>11.00 (49) 13.83 (51) 16.50 (70) 12.33 (56)</td>
<td>-0.653</td>
<td>0.01</td>
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<tr>
<td>Recruiter #551</td>
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<td>18.50 (96) 17.00 (70) 15.50 (60) 5.50 (20)</td>
<td>-0.823</td>
<td>0.01</td>
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<tr>
<td>Recruitees</td>
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<td>13.00 (61) 13.40 (49) 17.60 (80) 13.40 (61)</td>
<td>-0.381</td>
<td>0.10+</td>
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</table>
The profiles of individuals recruited by "the Lord" exhibited a phlegmatic/choleric trait pattern (71st and 68th percentiles), modified by strong sanguine characteristics (55th percentile) and much weaker melancholy tendencies (32nd percentile). The "man-recruited" subjects, on the other hand, proved to be choleric/phlegmatics (65th and 61st percentiles). The noticeably weaker phlegmatic trait was accompanied by less sanguinity (49th percentile) and more melancholy propensities (39th percentile). A test of this relationship produced an $r_p = -.744$, with an associated probability of 1 percent. The personalities of the two groups are significantly dissimilar. Figure 27 portrays the two profiles; table 12 summarizes the data.

Hypothesis 2 suggested that no statistically significant relationship would be found between the personalities of teachers and the grade levels to which they are assigned. To examine the nature and extent of this relationship, teachers were categorized on the basis of two-grade increments (i.e., teaching grades 1-2, 3-4, 5-6, 7-8, and 9-10), four-grade increments (i.e., teaching grades 1-4 or 5-8), and an eight-grade increment (i.e., teaching grades 1-8). The latter designation encompassed all teachers in one-room schools, regardless of the grade levels actually represented in their classrooms at the time of data collection.

Fourteen profile comparisons were performed using the selection variables thus described. Twelve of these proved insignificant at the .05 level, with coefficients ranging from -.144 to +.630; while two correlations were indeed significant, yielding $r_p$ values of +.823 and +.828, with associated probabilities of 2 percent. Figures 28-29 display the significant correlations; table 13 summarizes available data.
TABLE 12
PERSONALITY PROFILES OF "MAN" AND "GOD" RECRUITEES

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<tr>
<th>Recruited by</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>$r_p$</th>
<th>p</th>
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<tr>
<td>&quot;Man&quot;</td>
<td>346</td>
<td>12.97 (61)</td>
<td>13.47 (49)</td>
<td>16.05 (65)</td>
<td>9.13 (39)</td>
<td>-.744</td>
<td>.01</td>
</tr>
<tr>
<td>&quot;God&quot; or &quot;the Lord&quot;</td>
<td>24</td>
<td>14.58 (71)</td>
<td>14.54 (55)</td>
<td>16.29 (68)</td>
<td>7.71 (32)</td>
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TABLE 13
PERSONALITY PROFILES BY ASSIGNED GRADE LEVELS
(Hypothesis 2)

<table>
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<th>Assigned Grade Levels</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>$r_p$</th>
<th>p</th>
</tr>
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<tr>
<td>1-2</td>
<td>23</td>
<td>14.13 (69)</td>
<td>13.52 (50)</td>
<td>16.39 (69)</td>
<td>7.43 (30)</td>
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<td>.10+</td>
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<tr>
<td>3-4</td>
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<td>12.15 (56)</td>
<td>15.45 (60)</td>
<td>16.05 (65)</td>
<td>7.50 (30)</td>
<td>+.432</td>
<td>.10+</td>
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<td>13.52 (50)</td>
<td>16.39 (69)</td>
<td>7.43 (30)</td>
<td>+.307</td>
<td>.10</td>
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<tr>
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<td>14.65 (56)</td>
<td>16.12 (66)</td>
<td>8.94 (38)</td>
<td>+.823</td>
<td>.02</td>
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<td>1-2</td>
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<td>13.52 (50)</td>
<td>16.39 (69)</td>
<td>7.43 (30)</td>
<td>+.307</td>
<td>.10</td>
</tr>
<tr>
<td>9-10</td>
<td>9</td>
<td>14.33 (70)</td>
<td>13.22 (48)</td>
<td>17.00 (74)</td>
<td>7.33 (30)</td>
<td>+.823</td>
<td>.02</td>
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<td>3-4</td>
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<td>12.15 (56)</td>
<td>15.45 (60)</td>
<td>16.05 (65)</td>
<td>7.50 (30)</td>
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<td>.10</td>
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<td>14.65 (56)</td>
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<td>3-4</td>
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<td>15.45 (60)</td>
<td>16.05 (65)</td>
<td>7.50 (30)</td>
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<td>.10</td>
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<tr>
<td>9-10</td>
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<td>14.33 (70)</td>
<td>13.22 (48)</td>
<td>17.00 (74)</td>
<td>7.33 (30)</td>
<td>+.823</td>
<td>.02</td>
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<td>14.65 (56)</td>
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<td>8.94 (38)</td>
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<td>.10</td>
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<td>14.65 (56)</td>
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<td>.10</td>
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<td>13.22 (48)</td>
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<td>Choleric</td>
<td>Melancholy</td>
<td>$r_p$</td>
<td>p</td>
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<tr>
<td>7-8</td>
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<td>17.00 (74)</td>
<td>7.33 (30)</td>
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<td>12.71 (46)</td>
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<td>9.71 (42)</td>
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<td>13.45 (49)</td>
<td>16.25 (67)</td>
<td>8.82 (37)</td>
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<td>1-4</td>
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<td>12.71 (46)</td>
<td>16.16 (66)</td>
<td>9.71 (42)</td>
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<td>.10+</td>
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<td>13.22 (48)</td>
<td>17.00 (74)</td>
<td>7.33 (30)</td>
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<tr>
<td>5-8</td>
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<td>13.22 (48)</td>
<td>17.00 (74)</td>
<td>7.33 (30)</td>
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</table>
Hypothesis 3 proposed that no statistically significant relationship would be found between the personalities of educators and the size of school to which they were assigned. For purposes of this test, four school-size categories were established, premised on the numbers of teaching personnel assigned to each school: one teacher, two teachers, three or four teachers, and five or more teachers. A total of 461 individuals responded to the school-size item on the questionnaire. Of these, 88 served in one-teacher schools, 96 in two-teacher settings, 101 in three- or four-teacher environments, and 176 in five- or more-teacher institutions.

All six comparisons initiated on the basis of school size proved to be insignificant. Correlations ranged from -.378 to +.620, with probabilities equal to or exceeding 10 percent. Table 14 provides a summary of the data associated with tests of hypothesis three.

Another incidental finding was related to the third hypothesis. Respondents in the study were given the opportunity to declare a preference with respect to school size, regardless of present assignments. The available choices corresponded to those reported above. Of the 438 subjects electing to express a preference, 34 reported a predilection for one-teacher schools, 78 opted for a two-teacher environment, 111 chose the three- or four-teacher category, and the remaining 215 settled on the five- or more-teacher institutions.

Though a hypothesis concerning the relationship between teacher personalities and preferred school size was not advanced at the outset of the study, subsequent tests of this relationship produced significant results. All comparisons of group one (i.e., educators preferring one-teacher schools) with the remaining categories resulted in negative
<table>
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<th>Assigned School Size</th>
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<th>Sanguine</th>
<th>Cholic</th>
<th>Melancholy</th>
<th>$r_p$</th>
<th>p</th>
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<tr>
<td>One teacher</td>
<td>88</td>
<td>13.52 (65)</td>
<td>13.18 (48)</td>
<td>15.64 (62)</td>
<td>9.25 (40)</td>
<td>+.037</td>
<td>.10+</td>
</tr>
<tr>
<td>Two teachers</td>
<td>96</td>
<td>12.80 (60)</td>
<td>13.26 (48)</td>
<td>16.17 (67)</td>
<td>9.52 (41)</td>
<td>+.039</td>
<td>.10+</td>
</tr>
<tr>
<td>One teacher</td>
<td>88</td>
<td>13.52 (65)</td>
<td>13.18 (48)</td>
<td>15.64 (62)</td>
<td>9.25 (40)</td>
<td>+.039</td>
<td>.10+</td>
</tr>
<tr>
<td>Three or four teachers</td>
<td>101</td>
<td>13.21 (62)</td>
<td>13.07 (47)</td>
<td>16.37 (68)</td>
<td>9.44 (41)</td>
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<td>.10+</td>
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<tr>
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<td>13.52 (65)</td>
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<td>9.25 (40)</td>
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<td>.10</td>
</tr>
<tr>
<td>Five or more teachers</td>
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<td>14.02 (52)</td>
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<td>.10+</td>
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<tr>
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<td>96</td>
<td>12.80 (60)</td>
<td>13.26 (48)</td>
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<td>+.378</td>
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<tr>
<td>Three or four teachers</td>
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<td>13.21 (62)</td>
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<td>9.44 (41)</td>
<td>+.352</td>
<td>.10+</td>
</tr>
<tr>
<td>Five or more teachers</td>
<td>176</td>
<td>13.30 (63)</td>
<td>14.02 (52)</td>
<td>16.25 (67)</td>
<td>7.92 (33)</td>
<td>+.352</td>
<td>.10+</td>
</tr>
</tbody>
</table>
correlations (i.e., -.542, -.610, and -.631, with associated probabilities equal to or less than .05). The remaining comparisons proved insignificant.

The personality profile of individuals preferring one-teacher schools revealed, in comparison with other groups, similar phlegmatic qualities, noticeably subdued sanguine characteristics, a weaker choleric bent, and a more prominent melancholy tendency. Figures 30-32 illustrate the dissimilarities between profiles; table 15 presents the data which support these findings.

Hypotheses related to personnel performance appraisal

Hypothesis 4 postulated that no statistically significant relationship would be found between the personalities of educators and their perceived levels of competence. To enable an examination of this relationship, teachers, teacher/principals, and principals were subjectively rated by their superiors (i.e., principals, supervisors, and/or superintendents) on a five-point competence scale. A total of 441 subjects were thus rated. Approximately 15 percent (67 individuals) were judged to be clearly superior and received a rating of five. Only 0.9 percent (4 respondents) were considered unmistakably inferior and assigned to category one. Below average ratings of two were given to 8.8 percent of the total (39 subjects), while the remaining 75 percent were designated average (182 individuals) and above average (149 respondents).

The five-point scale permitted an equivalent number of groupings for test purposes, and ten initial comparisons were effected. A correlation between the personalities of educators rated as 3s and
<table>
<thead>
<tr>
<th>Preferred School Size</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>r_p</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>One teacher</td>
<td>34</td>
<td>13.32 (63)</td>
<td>11.88 (41)</td>
<td>15.44 (60)</td>
<td>9.53 (41)</td>
<td>-.542</td>
<td>.05</td>
</tr>
<tr>
<td>Two teachers</td>
<td>78</td>
<td>12.76 (62)</td>
<td>13.83 (51)</td>
<td>15.97 (65)</td>
<td>9.22 (39)</td>
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<td></td>
</tr>
<tr>
<td>One teacher</td>
<td>34</td>
<td>13.32 (63)</td>
<td>11.88 (41)</td>
<td>15.44 (60)</td>
<td>9.53 (41)</td>
<td>-.610</td>
<td>.01</td>
</tr>
<tr>
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<td>111</td>
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<td>13.52 (50)</td>
<td>16.62 (71)</td>
<td>8.92 (38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One teacher</td>
<td>34</td>
<td>13.32 (63)</td>
<td>11.88 (41)</td>
<td>15.44 (60)</td>
<td>9.53 (41)</td>
<td>-.631</td>
<td>.01</td>
</tr>
<tr>
<td>Five or more teachers</td>
<td>215</td>
<td>13.28 (63)</td>
<td>13.82 (51)</td>
<td>16.27 (67)</td>
<td>8.34 (35)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two teachers</td>
<td>78</td>
<td>12.76 (62)</td>
<td>13.83 (51)</td>
<td>15.97 (65)</td>
<td>9.22 (39)</td>
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<td>.10+</td>
</tr>
<tr>
<td>Three or four teachers</td>
<td>111</td>
<td>13.37 (64)</td>
<td>13.52 (50)</td>
<td>16.62 (71)</td>
<td>8.92 (38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two teachers</td>
<td>78</td>
<td>12.76 (62)</td>
<td>13.83 (51)</td>
<td>15.97 (65)</td>
<td>9.22 (39)</td>
<td>+.112</td>
<td>.10+</td>
</tr>
<tr>
<td>Five or more teachers</td>
<td>215</td>
<td>13.28 (63)</td>
<td>13.82 (51)</td>
<td>16.27 (67)</td>
<td>8.34 (35)</td>
<td>+.388</td>
<td>.10+</td>
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<tr>
<td>Three or four teachers</td>
<td>111</td>
<td>13.37 (64)</td>
<td>13.52 (50)</td>
<td>16.62 (71)</td>
<td>8.92 (38)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
those rated as 5s proved insignificant ($r_p = -0.472$, $p = 0.10$), as did a similar comparison of the profiles for subjects rated as 4s and 5s ($r_p = -0.361$, $p = 0.10$). The eight remaining correlations were significant, yielding negative values ranging from -0.767 to -0.964 and a positive value of +0.776—all with associated probabilities from 1 to 5 percent.

The single positive correlation discovered in the initial tests of hypothesis four, and the unusually low number of subjects rated as Is, prompted several additional comparisons. A composite profile was generated for individuals judged to be Is or 2s, a second profile for respondents labeled as Is, 2s, or 3s, and a third profile for subjects designated as 4s or 5s.

When compared to employees receiving superior ratings (5s), individuals assigned to categories 1 and 2 proved much less phlegmatic (60th vs. 64th percentiles), sanguine (40th vs. 55th percentiles), and choleric (59th vs. 72nd percentiles). On the other hand, those judged to possess inferior levels of competence (Is and 2s) were found to be much more melancholy than the more competent individuals (46th vs. 31st percentiles). This trend remained constant in comparisons of the other groups as well. As perceived competence climbed on the five-point scale, phlegmatic, sanguine, and choleric traits continued to rise, while melancholy propensities receded. Tests of these relationships produced significant $r_p$ coefficients ranging from -0.621 to -0.871, with associated probabilities of 1 percent.

The pronounced similarities between the profiles of respondents assigned to categories 3 and 4 ($r_p = 0.776$, $p = 0.02$) were underscored in a comparison of Is, 2s, and 3s with 4s and 5s. The dominant
likenesses found in the personalities of educators rated as 3s and 4s apparently masked the distinctions introduced by smaller numbers of subjects assigned to categories 1, 2, and 5.

Tests of hypothesis four demonstrated that there are marked dissimilarities between the personalities of educators when grouped on the basis of perceived competence. Figures 33-43 offer graphic representations of these relationships; table 16 summarizes the relevant data.

Hypothesis 5 speculated that no statistically significant relationship would be found between the personalities of educators judged "most competent" and the personalities of the administrators and/or supervisors passing judgment. To test the nature and extent of this relationship, a procedure similar to that used for hypothesis one was adopted. The profiles of each rater were compared with the composite profiles of those individuals which they had rated as "most competent" (represented by a judgment of 5 on the five-point scale previously described).

Eight independent tests of the hypothesis were conducted. In four cases a significant negative value of $r_p$ was discovered, while the four remaining tests produced insignificant results. In light of the finding that prominent differences exist between the personalities of teaching and non-teaching personnel (see pp. 81-83), the split results in this instance suggest that the discernible relationships are inconclusive. Figures 44-47 depict the significantly correlated profiles; table 17 summarizes the data pertinent to hypothesis five.

Hypothesis 6 suggested that no statistically significant relationship would be found between the personalities of educators
<table>
<thead>
<tr>
<th>Perceived Levels of Competence</th>
<th>Raw Score Means &amp; (Percentiles)</th>
<th>( r_p )</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (clearly inferior)</td>
<td>4</td>
<td>16.50 (84)</td>
<td>13.25 (48)</td>
</tr>
<tr>
<td>2 (below average)</td>
<td>39</td>
<td>12.46 (58)</td>
<td>11.44 (39)</td>
</tr>
<tr>
<td>1 (clearly inferior)</td>
<td>4</td>
<td>16.50 (84)</td>
<td>13.25 (48)</td>
</tr>
<tr>
<td>3 (average)</td>
<td>182</td>
<td>13.15 (62)</td>
<td>13.55 (50)</td>
</tr>
<tr>
<td>1 (clearly inferior)</td>
<td>4</td>
<td>16.50 (84)</td>
<td>13.25 (48)</td>
</tr>
<tr>
<td>4 (above average)</td>
<td>149</td>
<td>13.17 (62)</td>
<td>13.42 (49)</td>
</tr>
<tr>
<td>1 (clearly inferior)</td>
<td>4</td>
<td>16.50 (84)</td>
<td>13.25 (48)</td>
</tr>
<tr>
<td>5 (clearly superior)</td>
<td>67</td>
<td>13.36 (64)</td>
<td>14.51 (55)</td>
</tr>
<tr>
<td>2 (below average)</td>
<td>39</td>
<td>12.46 (58)</td>
<td>11.44 (39)</td>
</tr>
<tr>
<td>3 (average)</td>
<td>182</td>
<td>13.15 (62)</td>
<td>13.55 (50)</td>
</tr>
<tr>
<td>2 (below average)</td>
<td>39</td>
<td>12.46 (58)</td>
<td>11.44 (39)</td>
</tr>
<tr>
<td>4 (above average)</td>
<td>149</td>
<td>13.17 (62)</td>
<td>13.42 (49)</td>
</tr>
<tr>
<td>2 (below average)</td>
<td>39</td>
<td>12.46 (58)</td>
<td>11.44 (39)</td>
</tr>
<tr>
<td>5 (clearly superior)</td>
<td>67</td>
<td>13.36 (64)</td>
<td>14.51 (55)</td>
</tr>
<tr>
<td>3 (average)</td>
<td>182</td>
<td>13.15 (62)</td>
<td>13.55 (50)</td>
</tr>
<tr>
<td>4 (above average)</td>
<td>149</td>
<td>13.17 (62)</td>
<td>13.42 (49)</td>
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<tr>
<td>3 (average)</td>
<td>182</td>
<td>13.15 (62)</td>
<td>13.55 (50)</td>
</tr>
<tr>
<td>5 (clearly superior)</td>
<td>67</td>
<td>13.36 (64)</td>
<td>14.51 (55)</td>
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</table>

**TABLE 16**

PERSONALITY PROFILES BY PERCEIVED LEVELS OF COMPETENCE (Hypothesis 4)
<table>
<thead>
<tr>
<th>Perceived Levels of Competence</th>
<th>n</th>
<th>Raw Score Means &amp; (Percentiles)</th>
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<th></th>
<th></th>
<th></th>
<th>$r_p$</th>
<th>p</th>
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<tr>
<td></td>
<td></td>
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<td>Sanguine</td>
<td>Choleric</td>
<td>Melancholy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 (above average)</td>
<td>149</td>
<td>13.17 (62)</td>
<td>13.42 (49)</td>
<td>16.24 (67)</td>
<td>8.76 (37)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 (clearly superior)</td>
<td>67</td>
<td>13.36 (64)</td>
<td>14.51 (55)</td>
<td>16.76 (72)</td>
<td>7.57 (31)</td>
<td>-.361</td>
<td>.10+</td>
<td></td>
</tr>
<tr>
<td>1-2 (inferior combined)</td>
<td>43</td>
<td>12.84 (60)</td>
<td>11.60 (40)</td>
<td>15.33 (59)</td>
<td>10.49 (46)</td>
<td>-.871</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>5 (clearly superior)</td>
<td>67</td>
<td>13.36 (64)</td>
<td>14.51 (55)</td>
<td>16.76 (72)</td>
<td>7.57 (31)</td>
<td>-.621</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>1-3 (average and below)</td>
<td>225</td>
<td>13.09 (62)</td>
<td>13.19 (48)</td>
<td>15.92 (64)</td>
<td>9.35 (40)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 (clearly superior)</td>
<td>67</td>
<td>13.36 (64)</td>
<td>14.51 (55)</td>
<td>16.76 (72)</td>
<td>7.57 (31)</td>
<td>-.774</td>
<td>.01</td>
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</tr>
<tr>
<td>1-2 (inferior combined)</td>
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<td>11.60 (40)</td>
<td>15.33 (59)</td>
<td>10.49 (46)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-5 (superior combined)</td>
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<td>13.23 (63)</td>
<td>13.76 (51)</td>
<td>16.40 (69)</td>
<td>8.39 (35)</td>
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<td>.10+</td>
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<tr>
<td>1-3 (average and below)</td>
<td>225</td>
<td>13.09 (62)</td>
<td>13.19 (48)</td>
<td>15.92 (64)</td>
<td>9.35 (40)</td>
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<td></td>
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<tr>
<td>4-5 (superior combined)</td>
<td>216</td>
<td>13.23 (63)</td>
<td>13.76 (51)</td>
<td>16.40 (69)</td>
<td>8.39 (35)</td>
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TABLE 16--Continued
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<tr>
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<th>Raw Score Means &amp; (Percentiles)</th>
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<th></th>
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<th>p</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Phlegmatic</td>
<td>Sanguine</td>
<td>Choleric</td>
<td>Melancholy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rater #016 Ratees</td>
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<td>22.00 (97)</td>
<td>19.00 (91)</td>
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<td>13.00 (47)</td>
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<td>.10+</td>
</tr>
<tr>
<td>Rater #184 Ratees</td>
<td>1</td>
<td>19.00 (98)</td>
<td>14.00 (52)</td>
<td>18.00 (83)</td>
<td>2.00 (05)</td>
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<td>.10+</td>
</tr>
<tr>
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<td>15.00 (58)</td>
<td>15.00 (56)</td>
<td>11.00 (49)</td>
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<td>.10+</td>
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<td>Rater #421 Ratees</td>
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<td>21.00 (94)</td>
<td>17.00 (74)</td>
<td>7.00 (28)</td>
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<td>.10+</td>
</tr>
<tr>
<td>Rater #501 Ratees</td>
<td>1</td>
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<td>19.00 (82)</td>
<td>19.00 (91)</td>
<td>6.00 (22)</td>
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<tr>
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<td>21.00 (94)</td>
<td>14.00 (48)</td>
<td>2.00 (05)</td>
<td>-.553</td>
<td>.02</td>
</tr>
<tr>
<td>Rater #551 Ratees</td>
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<td>14.00 (68)</td>
<td>19.00 (82)</td>
<td>20.00 (97)</td>
<td>2.00 (05)</td>
<td>-.482</td>
<td>.05</td>
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</tbody>
</table>

TABLE 17
PERSONALITY PROFILES OF "MOST COMPETENT" EDUCATORS AND THEIR RATERS
(Hypothesis 5)
selected for advancement and the personalities of educators not chosen. In the context of this study, selection for advancement was defined as actual upward mobility in terms of professional position. Respondents were asked to state their present positions (i.e., teacher, teacher/principal, principal, supervisor, or superintendent), while the following question elicited their prior position. Upward movement constituted "advancement," individuals experiencing lateral movement "remained static," and downward movement was termed "regression."

One of the three comparisons between groups was significant at the .02 level. The profile of individuals regressing in position produced an $r_p$ of -.595 when correlated with the profile of subjects remaining static. Differences between the profiles lay in phlegmatic characteristics (65th vs. 61st percentiles, respectively), sanguine propensities (56th vs. 48th percentiles), and choleric traits (75th vs. 65th percentiles). Melancholy tendencies were demonstrably similar in strength (36th vs. 37th percentiles).

The remaining correlations were insignificant. Figure 48 provides a graphic portrayal of the significant relationship; table 18 summarizes the applicable data.

The test results for hypothesis six were puzzling at best, since the significant profile relationship between "regressed" and "static" individuals was not apparent when "regressed" and "advanced" subjects were compared. A refined view of the relationships was obtained when a sex variable was introduced. In three subsequent tests of the hypothesis, using males only, values of $r_p$ ranged from +.020 to +.107, with associated probabilities well in excess of 10 percent. On the other hand, three tests using females only yielded correlations...
<table>
<thead>
<tr>
<th>Advancement Status</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>r_p</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>49</td>
<td>13.31 (63)</td>
<td>13.20 (48)</td>
<td>16.92 (73)</td>
<td>8.14 (34)</td>
<td>-.310</td>
<td>.10+</td>
</tr>
<tr>
<td>Regressed</td>
<td>41</td>
<td>13.61 (65)</td>
<td>14.68 (56)</td>
<td>17.12 (75)</td>
<td>8.54 (36)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Advanced</td>
<td>49</td>
<td>13.31 (63)</td>
<td>13.20 (48)</td>
<td>16.92 (73)</td>
<td>8.14 (34)</td>
<td>-.260</td>
<td>.10+</td>
</tr>
<tr>
<td>Remained static</td>
<td>275</td>
<td>12.94 (61)</td>
<td>13.29 (48)</td>
<td>16.01 (65)</td>
<td>8.75 (37)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Regressed</td>
<td>41</td>
<td>13.61 (65)</td>
<td>14.68 (56)</td>
<td>17.12 (75)</td>
<td>8.54 (36)</td>
<td>-.595</td>
<td>.02</td>
</tr>
<tr>
<td>Remained static</td>
<td>275</td>
<td>12.94 (61)</td>
<td>13.29 (48)</td>
<td>16.01 (65)</td>
<td>8.75 (37)</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
ranging from -.692 to -.832, all significant at the .01 level. Figures 49-51 illustrate the latter comparisons; table 19 records the data pertaining to all six tests.

Hypothesis 7 proposed that no statistically significant relationship would be found between the personalities of educators selected for advancement and the personalities of the administrators making the selections. Of the 49 individuals receiving promotions from prior to present positions, 23 were matched with their respective recruiters on the basis of responses to item 11 on the demographic questionnaire (see appendix A). Recruiters designated by the remaining 26 were unknown or unavailable for inclusion in the study.

Two of the six tests thus generated were significant at the .01 level, producing \( r_p \) coefficients of -.638 and -.945. Two tests resulted in insignificant positive values of \( r_p \) (+.236 and +.541), while the remaining two were insignificantly negative (-.135 and -.390). Due to the unexpectedly small sample size and the mixed results, the relationship between the personalities of educators receiving promotions and the personalities of administrators selecting them for advancement remains unclear. Figures 52-53 graphically illustrate the significant comparisons; table 20 offers a summary of the data associated with hypothesis seven.

Hypotheses related to personnel mobility

Hypothesis 8 postulated that no statistically significant relationship would be found between the personalities of educators and their records of job stability. Tests of this hypothesis were dependent on responses to items 9 and 10 on the demographic questionnaire.
## TABLE 19

PERSONALITY PROFILES BY OPPORTUNITIES FOR ADVANCEMENT  
(With Sex Variable)

<table>
<thead>
<tr>
<th>Advancement Status</th>
<th>Raw Score Means &amp; (Percentiles)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>( r_p )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n )</td>
<td>Phlegmatic</td>
<td>Sanguine</td>
<td>Choleric</td>
<td>Melancholy</td>
<td></td>
<td>( r_p )</td>
<td>( p )</td>
</tr>
<tr>
<td><strong>Male:</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced</td>
<td>36</td>
<td>13.83 (67)</td>
<td>14.00 (52)</td>
<td>16.64 (71)</td>
<td>7.92 (33)</td>
<td></td>
<td>.036</td>
<td>.10+</td>
</tr>
<tr>
<td>Regressed</td>
<td>29</td>
<td>13.59 (65)</td>
<td>14.76 (57)</td>
<td>16.28 (68)</td>
<td>9.38 (41)</td>
<td></td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Advanced</td>
<td>36</td>
<td>13.83 (67)</td>
<td>14.00 (52)</td>
<td>16.64 (71)</td>
<td>7.92 (33)</td>
<td></td>
<td>.107</td>
<td>.10+</td>
</tr>
<tr>
<td>Remained static</td>
<td>101</td>
<td>13.59 (65)</td>
<td>13.65 (50)</td>
<td>15.62 (62)</td>
<td>8.47 (36)</td>
<td></td>
<td>.020</td>
<td>.10+</td>
</tr>
<tr>
<td>Regressed</td>
<td>29</td>
<td>13.59 (65)</td>
<td>14.76 (57)</td>
<td>16.28 (68)</td>
<td>9.38 (41)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remained static</td>
<td>101</td>
<td>13.59 (65)</td>
<td>13.65 (50)</td>
<td>15.62 (62)</td>
<td>8.47 (36)</td>
<td></td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td><strong>Female:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced</td>
<td>11</td>
<td>11.09 (50)</td>
<td>10.82 (36)</td>
<td>17.73 (81)</td>
<td>9.91 (43)</td>
<td></td>
<td>-.830</td>
<td>.01</td>
</tr>
<tr>
<td>Regressed</td>
<td>10</td>
<td>13.50 (64)</td>
<td>14.00 (52)</td>
<td>19.20 (92)</td>
<td>7.30 (30)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced</td>
<td>11</td>
<td>11.09 (50)</td>
<td>10.82 (36)</td>
<td>17.73 (81)</td>
<td>9.91 (43)</td>
<td></td>
<td>-.692</td>
<td>.01</td>
</tr>
<tr>
<td>Remained static</td>
<td>173</td>
<td>12.59 (59)</td>
<td>13.06 (47)</td>
<td>16.27 (67)</td>
<td>8.88 (37)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regressed</td>
<td>10</td>
<td>13.50 (64)</td>
<td>14.00 (52)</td>
<td>19.20 (92)</td>
<td>7.30 (30)</td>
<td></td>
<td>-.832</td>
<td>.01</td>
</tr>
<tr>
<td>Remained static</td>
<td>173</td>
<td>12.59 (59)</td>
<td>13.06 (47)</td>
<td>16.27 (67)</td>
<td>8.88 (37)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 20
PERSONALITY PROFILES OF "ADVANCED" EDUCATORS AND THEIR RECRUITERS
(Hypothesis 7)

<table>
<thead>
<tr>
<th>Recruiter #002</th>
<th>&quot;Advanced&quot; recruitees</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>r_p</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>18.00 (94)</td>
<td>16.00 (63)</td>
<td>19.00 (91)</td>
<td>4.00 (12)</td>
<td>+.236</td>
<td>.10+</td>
</tr>
<tr>
<td>&quot;Advanced&quot; recruitees</td>
<td></td>
<td>2</td>
<td>15.00 (74)</td>
<td>15.00 (58)</td>
<td>14.50 (52)</td>
<td>10.00 (44)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>12.00 (55)</td>
<td>17.00 (70)</td>
<td>18.00 (83)</td>
<td>10.00 (44)</td>
<td>+.541</td>
<td>.10</td>
</tr>
<tr>
<td>&quot;Advanced&quot; recruitees</td>
<td></td>
<td>3</td>
<td>11.67 (53)</td>
<td>18.67 (80)</td>
<td>14.67 (52)</td>
<td>7.00 (28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruiter #085</td>
<td>&quot;Advanced&quot; recruitees</td>
<td>1</td>
<td>19.00 (98)</td>
<td>19.00 (82)</td>
<td>17.00 (74)</td>
<td>5.00 (17)</td>
<td>-.945</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>16.00 (81)</td>
<td>11.50 (40)</td>
<td>13.00 (41)</td>
<td>.50 (02)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruiter #107</td>
<td>&quot;Advanced&quot; recruitees</td>
<td>1</td>
<td>8.00 (33)</td>
<td>13.00 (47)</td>
<td>15.00 (56)</td>
<td>9.00 (38)</td>
<td>-.390</td>
<td>.10+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9</td>
<td>13.44 (64)</td>
<td>9.89 (31)</td>
<td>16.56 (70)</td>
<td>8.67 (36)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruiter #222</td>
<td>&quot;Advanced&quot; recruitees</td>
<td>1</td>
<td>16.00 (81)</td>
<td>18.00 (76)</td>
<td>14.00 (48)</td>
<td>2.00 (05)</td>
<td>-.638</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>10.00 (43)</td>
<td>14.80 (57)</td>
<td>16.80 (72)</td>
<td>13.00 (59)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recruiter #520</td>
<td>&quot;Advanced&quot; recruitees</td>
<td>1</td>
<td>19.00 (98)</td>
<td>19.00 (82)</td>
<td>20.00 (97)</td>
<td>7.00 (28)</td>
<td>-.135</td>
<td>.10+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>10.50 (46)</td>
<td>12.50 (44)</td>
<td>15.50 (60)</td>
<td>9.00 (38)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Respondents were assigned to one of three categories, representative of the average length of stay in one location: less than three years, three to six years, and more than six years. The total years of service divided by the number of moves (plus one, to account for the first assignment) provided the selection variable. Subjects with only one or two years of service and no reported moves were excluded.

Three initial tests of the hypothesis were conducted. A comparison of the profile common to educators in the first category (i.e., less than three years in one location) with that of personnel in the third category (i.e., more than six years) was significant at the .01 level \( r_p = -.844 \). A correlation of the personalities of individuals in categories two (i.e., three to six years) and three was also significant \( r_p = -.563, p = .02 \). The third test, a contrast of subjects in groups one and two, proved insignificant \( r_p = -.451, p = .10 \).

In general, measured phlegmatic, sanguine, and choleric qualities increased in strength as stability increased; while the reverse was true for melancholy traits. Educators averaging less than three years in one location were noticeably less phlegmatic (60th vs. 72nd percentiles), sanguine (48th vs. 54th percentiles), and choleric (67th vs. 72nd percentiles) than those remaining six or more years. On the other hand, the highly mobile subjects reported more melancholy tendencies (40th vs. 24th percentiles). A similar pattern was apparent in comparisons of those experiencing moderate stability (i.e., three-to-six-year average) and educators in the more-than-six-year group. Figures 54-55 portray these relationships; table 21 summarizes the relevant data.

Once again, as was the case for hypothesis six, a refined view
<table>
<thead>
<tr>
<th>Average Years in Each Location</th>
<th>n</th>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholy</th>
<th>$r_p$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than three</td>
<td>187</td>
<td>12.76 (60)</td>
<td>13.25 (48)</td>
<td>16.22 (67)</td>
<td>9.41 (40)</td>
<td>-.451</td>
<td>.10</td>
</tr>
<tr>
<td>Three to six</td>
<td>169</td>
<td>13.47 (64)</td>
<td>14.03 (52)</td>
<td>16.35 (68)</td>
<td>7.89 (32)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than three</td>
<td>187</td>
<td>12.76 (60)</td>
<td>13.25 (48)</td>
<td>16.22 (67)</td>
<td>9.41 (40)</td>
<td>-.844</td>
<td>.01</td>
</tr>
<tr>
<td>More than six</td>
<td>43</td>
<td>14.67 (72)</td>
<td>14.37 (54)</td>
<td>16.81 (72)</td>
<td>6.37 (24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three to six</td>
<td>169</td>
<td>13.47 (64)</td>
<td>14.03 (52)</td>
<td>16.35 (68)</td>
<td>7.89 (32)</td>
<td>-.563</td>
<td>.02</td>
</tr>
<tr>
<td>More than six</td>
<td>43</td>
<td>14.67 (72)</td>
<td>14.37 (54)</td>
<td>16.81 (72)</td>
<td>6.37 (24)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
of the relationship between personality and records of job stability was obtained when a sex variable was introduced. In three subsequent tests of hypothesis eight, using males only, two significant results were observed. Males with less than three years in each location were much less phlegmatic (63rd vs. 80th percentiles) and much more melancholy (39th vs. 20th percentiles) than those in the more-than-six-year category (\( r_p = -.780, p = .01 \))—a pattern that was also prevalent in comparisons of the three-to-six-year subjects with the latter group (\( r_p = 0.547, p = .05 \)).

The phlegmatic and melancholy traits of female respondents, while similar in overall pattern, differed from the profiles of males in intensity and range. The phlegmatic qualities of women did not reach the levels of those exhibited by the males; though, in contrast, the melancholy tendencies of the females were more pronounced in every category. Relative increases and/or decreases in trait measures were also not as pronounced among the females. Indeed, only one test was significant—a comparison of subjects with a less-than-three-year average stay to those with more than six years in each location (\( r_p = -.740, p = .01 \)).

Figures 56-58 offer graphic representations of the significant relationships between personality and job stability when a sex variable was introduced; table 22 records the data associated with each test.

Hypothesis 9 suggested that no statistically significant relationship would be found between the personalities of school system administrators and the rates of personnel turnover in the organizations which they administer. It was presumed at the outset of the study that participating administrators could be adequately grouped on the basis

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TABLE 22
PERSONALITY PROFILES BY RECORDS OF JOB STABILITY
(With Sex Variable)

<table>
<thead>
<tr>
<th>Average Years in Each Location</th>
<th>n</th>
<th>Phlegmatic Mean (Percentile)</th>
<th>Sanguine Mean (Percentile)</th>
<th>Choleric Mean (Percentile)</th>
<th>Melancholy Mean (Percentile)</th>
<th>r_p</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than three</td>
<td>82</td>
<td>13.24 (63)</td>
<td>13.98 (52)</td>
<td>16.30 (68)</td>
<td>9.09 (39)</td>
<td>-.264</td>
<td>.10+</td>
</tr>
<tr>
<td>Three to six</td>
<td>79</td>
<td>14.34 (70)</td>
<td>14.61 (56)</td>
<td>15.89 (64)</td>
<td>7.53 (31)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than three</td>
<td>82</td>
<td>13.24 (63)</td>
<td>13.98 (52)</td>
<td>16.30 (68)</td>
<td>9.09 (39)</td>
<td>-.780</td>
<td>.01</td>
</tr>
<tr>
<td>More than six</td>
<td>14</td>
<td>15.86 (80)</td>
<td>13.93 (52)</td>
<td>16.86 (73)</td>
<td>5.50 (20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than three</td>
<td>103</td>
<td>12.36 (57)</td>
<td>12.62 (45)</td>
<td>16.18 (67)</td>
<td>9.71 (42)</td>
<td>-.170</td>
<td>.10+</td>
</tr>
<tr>
<td>Three to six</td>
<td>88</td>
<td>12.66 (59)</td>
<td>13.49 (49)</td>
<td>16.73 (72)</td>
<td>8.31 (35)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than three</td>
<td>103</td>
<td>12.36 (57)</td>
<td>12.62 (45)</td>
<td>16.18 (67)</td>
<td>9.71 (42)</td>
<td>-.740</td>
<td>.01</td>
</tr>
<tr>
<td>More than six</td>
<td>29</td>
<td>14.10 (69)</td>
<td>14.59 (56)</td>
<td>16.79 (72)</td>
<td>6.79 (27)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three to six</td>
<td>88</td>
<td>12.66 (59)</td>
<td>13.49 (49)</td>
<td>16.73 (72)</td>
<td>8.31 (35)</td>
<td>-.416</td>
<td>.10</td>
</tr>
<tr>
<td>More than six</td>
<td>29</td>
<td>14.10 (69)</td>
<td>14.59 (56)</td>
<td>16.79 (72)</td>
<td>6.79 (27)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
of annual turnover rates, thus enabling a test of this hypothesis. A number of unforeseen difficulties, however, exacerbated the already anticipated problem of a small number of subjects, and made a realistic examination of this relationship impossible.

The surprising reluctance or inability of some administrators to reveal actual turnover rates was countered to some degree by a manual comparison of personnel listings in the 1979-80 and 1980-81 teacher directories. Calculated rates for five of the nine conferences participating in the study ranged from 17 to 34 percent; but, unfortunately, three of the five conferences had experienced rates in excess of 26 percent, assuring the impossibility of meaningful comparisons. In addition, the frequent changes among school and conference administrators throughout the period of the study countered, to a large degree, the conceptual basis for the original hypothesis. A long-term sampling was not possible. Though intuitively attractive, hypothesis nine was, therefore, set aside for future study.

Summary

Procedures used in the foregoing presentations reflected the amenability of the data to statistical and graphic analyses. In addition to the tabled data associated with each finding, figures 2-58 (relegated to appendix C) provided visual illustrations of the significant relationships.

The sample as a whole exhibited a choleric/phlegmatic trait

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1Given the reticent expressions of some administrators and the unfeasibility of a valid test, actual turnover rates by conference are not reported. They serve no useful purpose in the context of the study.
pattern, while a reversal was apparent for the male subjects. The introduction of union-wide geographic variables produced no significant findings. Subject groupings on the basis of occupational position, however, revealed distinct differences in the profiles of teaching and non-teaching personnel. Comparisons on the basis of years of experience constituted a final generalized view of the sample, with no meaningful relationship discovered.

Tests of the hypotheses were also mixed. Correlations of the profiles for recruiters and recruitees were inconclusive, though a comparison of "man-recruited" and "God-recruited" individuals was significant. Assigned grade levels had no demonstrable impact, a finding which was also common to comparisons on the basis of school size. When school-size preferences were considered, however, subjects choosing one-teacher schools proved to have personalities significantly dissimilar to those of other groups.

Hypothesis four examined profiles on the basis of perceived competence, with significant results when the personalities of subjects at the low and high positions on the scale were compared. Correlations of the "most competent" profiles with the personalities of corresponding recruiters revealed no discernible relationships. When advancement was introduced as a selection variable, a significant finding emerged--individuals regressing in position proved markedly different from subjects remaining static. This relationship was clarified further by the introduction of a sex variable.

The seventh hypothesis contrasted the personalities of educators selected for advancement with the profiles of the administrators responsible for hiring them. No meaningful relationship was observed.
Finally, the respondents were grouped on the basis of job stability, with significant results when individuals with short-term tenures in each location were compared with subjects experiencing a higher degree of stability.

Chapter V explores these findings in greater detail and offers a summary of the conclusions derived from the data. Suggestions for further research are also presented.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The Seventh-day Adventist educational system in North America is in a state of flux. Constituent calls for increased accountability, the expressed concerns of Church leadership, intensifying financial pressures, widespread personnel movement—these and other factors have precipitated a renewed interest in person/job interactions in the Adventist school setting.

Despite a growing body of literature, the nature and extent of relationships between personality and occupational behavior are not clearly understood. More specifically, the interactions between human temperament and various aspects of personnel administration in an educational context are unknown.

The purpose of this study, then, was to profile the temperament traits of professional educators in the Adventist school system; and, in so doing, to examine the role of personality as it relates to selected aspects of personnel appointment, appraisal, and mobility.

Importance of the Study

Leaders within the Seventh-day Adventist Church have publicly declared their commitment to vigorous growth and improved organizational effectiveness in all sectors of the educational program (e.g., Hirsch, 1977). Because personnel quality and performance are key
factors in the success formulae of human service organizations, a con­
tinually developing knowledge of the person/job interaction is not only
desirable, but necessary. This study represents one more step in
understanding professional educators in their occupational environment.

Relevant Literature

The primary thrust of the study derived from an apparent void in both popular and scholarly literature with respect to personality and its role in personnel activities. A number of difficulties have contributed to this deficiency.

More than four decades ago, Allport (1937) surveyed then-current definitions of personality and concluded that at least six distinct categories existed, to say nothing of the variants within each group. Even if personologists could have agreed upon terminology, the general disdain for behavioral science expressed by layman and scientist alike (e.g., McCabe, 1966) has no doubt impacted the progress of meaningful research. This, plus the multiplicity of theoretical structures and methodological problems encountered, may account, in large part, for the aberrant nature of formal personality studies.

Typological views of personality dominated the earliest attempts to explain human behavior. From the Hippocratic model of bodily "humors" to the extraversion/introversion dichotomy of Jung (1928) and the somatotypes of Sheldon, Dupertuis, and McDermott (1954), the belief that individuals can somehow be "pigeon-holed" has remained in vogue (see Mischel & Mischel, 1977). Eysenck (1947, 1961) has done much to bridge the gap between primitive typological views and more recent factor analytic approaches (e.g., Cattell, 1950, 1965; Guilford,
1959). Refinements of Eysenck's stance (i.e., Blitchington & Cruise, 1979; Cruise & Blitchington, 1977; Cruise, Blitchington & Futcher, 1980) provided the theoretical constructs for the present study.

A second area of relevant literature was that pertaining to occupational psychology and personnel administration. Theoretical musings with respect to leadership behavior, employee satisfaction, and other aspects of organizational performance are legion (e.g., Argyris, 1957; Barnard, 1938; Fiedler, 1967; Hemphill, 1954; Likert, 1961; McGregor, 1960; Mayo, 1960; Stogdill, 1948). Of greatest impact on this study, however, was the work of Holland (1973) His beliefs that (1) most persons can be categorized on the basis of personality types, (2) occupational environments have personalities of their own, (3) people search for compatible work environments, and (4) occupational behavior is dependent on the person/environment interaction served as a strong theoretical impetus.

With respect to the four-temperament view of personality and its measurement in an educational setting, no studies were found which were related to the central focus of this study. Other than intuitively conceived impressions of the temperaments of professional educators and the potential impact of their personalities on the school environment, the study was premised on a cognitive void.

Instrumentation

The Temperament Inventory (TI), developed by Cruise and Blitchington (1977) and subsequently validated by Cruise, Blitchington, and Futcher (1980), was adopted as the primary data collection instrument. The TI was designed to assess personality traits in terms of phlegmatic,
sanguine, choleric, and melancholy dimensions of human temperament. The TI was selected because it (1) measured the personality variables of specific interest, (2) was relatively brief and easily administered in a group setting, (3) possessed documented reliability and validity, and (4) was easily scored using overlay stencils.

A twelve-item demographic information sheet was attached to the TI. Prepared by the researcher, this questionnaire elicited the data necessary to operationalize four of the seven selection variables: advancement, grade level, school size, and job stability. Two variables, rated competence and personnel turnover, were sought by direct inquiry of supervisory personnel. Sex was reported on the cover of the TI.

**Methodology**

A non-random sample of 521 educators in the K-10 educational system of the Seventh-day Adventist Church was selected to participate in this study. A total of 486 teachers, teacher/principals, principals, supervisors, superintendents, and retirees responded favorably, providing a response rate in excess of 93 percent. Nine local conference administrative units of the Church, chosen largely on the basis of availability, were represented.

The data-gathering instruments were proctored by local and/or union conference superintendents, using detailed written instructions to assure consistency. Group administrations of the instruments occurred between August, 1979, and February, 1980, generally coinciding with local conference teachers' conventions. A follow-up mail and telephone campaign made possible the participation of subjects absent from the
group sessions. The data was scored, compiled, and entered in the computer in July of 1980, concluding the collection process.

Cattell's Coefficient of Pattern Similarity \( (r_p) \) was selected as the primary analytical tool. The \( r_p \) statistic represented, in this instance, a correlation of personality profiles in terms of level (strength of the responses), variance (shape or pattern of the profiles), and peakedness (accentuational differences between profiles) (Cattell, 1969; Helmstadter, 1957). In addition to the \( r_p \) correlation, significantly different profiles were compared graphically by converting raw score means to percentiles and constructing quadrilateral illustrations.

A .05-level significance criterion was applied throughout the study. Rejection of the null hypotheses occurred when values of \( r_p \) exhibited associated probabilities equal to or less than 5 percent.

**Examination of the Findings**

The data presented in chapter IV revealed a number of interesting findings which deserve further scrutiny. The behavioral interpretations which follow rely heavily on the widely documented observations of researchers and psychologists (e.g., Blitchington & Cruise, 1979; Eysenck, 1947, 1961).

**Profile of the population as a whole**

Professional educators in the K-10 system of the Seventh-day Adventist Church were found to be choleric/phlegmatics (see table 5, p. 79). This primary/secondary trait pattern suggests that the population possesses bold, aggressive, energetic, somewhat insensitive characteristics, markedly tempered by easygoing, flexible, diplomatic
qualities. This pattern most often manifests itself as a surface calm, in which individuals appear self-controlled, generally positive, and reasonably social. Strong underlying traits of determination and persistence, however, coupled with fears of incompetency or rejection, sometimes erupt as expressions of anger, impatience, or frustration.

Holland's (1973) contentions that occupational environments have unique personalities and that individuals consciously seek employment that is compatible with their own personalities appear to be supported by this finding. The persistence required for daily lesson preparations and clerical tasks, periodic certification renewal, the handling of student behavioral problems, ad infinitum, is best exemplified by the choleric trait. Sensitivity to the emotional needs of students is often repressed by the strictures of scheduling, a group-oriented environment, and the like. These occupational characteristics are also compatible with the insensitive propensities of the choleric individual.

On the other hand, educators are expected to meet the unexpected in stride, work well under pressure, be tactful in their human relationships, and adapt readily to new people, policies, and procedures. These abilities are most often associated with the phlegmatic temperament.

Finally, a graphic analysis of the educators' personality profile reveals that the population tends toward emotional stability and a modicum of extraversion (see fig. 2 in appendix B). Both characteristics are generally considered desirable in the social-service setting represented by an educational work environment.
Profiles by sex

The introduction of a sex variable produced a significant, unexpected finding (see table 6, p. 79). Personologists generally concur that both male and female representatives may be found for each and every conceivable trait pattern. Sex differences are not usually significant when sex-biased questions are eliminated from personality inventories (Eysenck & Eysenck, 1964). In the case of the Temperament Inventory, methodological techniques employed in the development of the instrument (i.e., an initial test validation sample containing approximately equal numbers of males and females) minimized sex bias (Cruise, Blitchington & Futcher, 1980). Yet strong profile differences were revealed.

The primary/secondary trait pattern of females was found to correspond to that of the population as a whole, perhaps because of the dominant numbers of women reflected in the sample statistic. A strong choleric temperament was countered by a secondary phlegmatic tendency, though the latter proved to be much weaker than that found in the total population. Female Adventist educators evidently possess assertive, energetic, and bold behavioral traits. They may also exhibit a certain emotional insensitivity in their dealings with individual students, with the demands of the "position" subduing open expressions of sympathy or empathy. Females proved to be less outgoing than males, while revealing somewhat more pronounced tendencies toward perfectionism, anxiety, and creativity than their counterparts.

The male temperament profile consisted of predominant phlegmatic propensities, tempered by a strong choleric bent. This pattern
represents a reversal of the primary/secondary profile of the female population. Outward appearances for the "average" male Adventist educator are doubtless marked by poise, calmness, and easygoing consistency. The prominent secondary choleric trait, however, suggests a level of willfulness and drive that often results in steady, if not attention-getting, job performance. When compared with his female counterparts, the male educator is apparently more outgoing, carefree, and unorganized. He is also less moody and emotionally sensitive.

Profiles by geographic region

Geographic location, in a broad regional comparison, proved to have no significant relationship to the personality of Adventist educators (see table 7, p. 82). The profiles of both Central and Lake Union Conference participants followed the choleric/phlegmatic pattern previously described for the population as a whole. Perhaps the "job personality" and widespread personnel movement (see table 2, p. 61) consorted to overshadow regional differences. It is also emphasized that the two unions were centrally located on the North American continent. It may be that comparisons of educators in widely disparate regions or in smaller, more culturally discrete settings would prove significant.

Profiles by professional position

When the population was sampled on the basis of professional position, several significant findings emerged. Foremost of these was the discovery that personnel actively involved in teaching exhibit a much different personality than educators not involved in classroom instruction (see table 8, p. 82). The primary/secondary trait pattern
remained constant for both groups, though the strength of both choleric and phlegmatic characteristics was more pronounced among non-teaching personnel. Sociable, outgoing propensities were notably prominent in the non-teacher profile, nearly matching the secondary phlegmatic trait in intensity. The administrators and supervisors also exhibited weaker melancholy tendencies than any other discrete group examined in this study.

If it is agreed that personalities are largely inherited and therefore stable (cf., Allport, 1937; Blitchington & Cruise, 1979; Cartwright, 1974; Eysenck, 1947), a plausible explanation of these differences would suggest that an administrative "type" exists in the population; and, through the normal processes of personnel selection, these individuals are subjectively identified and placed in non-teaching roles. The personality of administrators and supervisors is decidedly "strong" when compared with that of teachers. Perhaps the tendency toward optimism, cheerfulness, and sociability exemplified by the pronounced sanguine trait is a ticket to advancement. It is presumed that the unorganized component of sanguinity is adequately balanced by the choleric and phlegmatic propensities!

In addition to the teacher/non-teacher dichotomy, ten other comparisons were effected, using the designated categories of teacher, teacher/principal, principal, supervisor, and superintendent. As might be expected in light of the foregoing results, teachers were found to be much like teacher/principals and principals displayed marked similarities to superintendents. An unanticipated result, however, was the finding that supervisors are significantly different in personality, not only in comparisons with teaching personnel, but in
correlations with principals and superintendents as well (see table 9, p. 84).

Supervisors were seen to depart from the choleric/phlegmatic pattern of the population as a whole. Indeed, they proved to be choleric/sanguines, generally overbearing in the strength of their personalities. Charming, ambitious, insensitive, enthusiastic, dynamic, impatient, sometimes callous--these are the characteristics common to supervisors. When compared with the principals and superintendents, they displayed notably weaker phlegmatic qualities. Supervisors are more intense, less flexible and tactful, certainly not bland; and though the sanguine trait was strong, it did not equal the sociable, distractible, carefree propensities of the administrators.

As it happened, the sample of classroom supervisors consisted of all females, while the principals and superintendents were all male. The dominance of male administrators in Seventh-day Adventist schools, though not absolute, is pronounced. A subjective comparison of the profile elements for supervisors and females (see table 9, p. 84; table 6, p. 79) reveals that the former differ markedly from the norms for their sex. Once again, the evidence tends to support the concept of a supervisory "type." Individuals possessing the unique personality profile associated with supervisors as a group may enjoy enhanced opportunities for promotion to non-teaching roles. In effect, such persons "stand out in the crowd."

Profiles by years of experience

Only one of fifteen comparisons generated on the basis of experience proved significant. Educators with 1 to 5 years of service
possessed personalities that were remarkably similar to those exhibited by individuals with 11 to 15 years of educationally related experience (see table 10, p. 86). Fourteen additional tests produced insignificant results; hence the relationship between personality and years of service remains unclear.

Hypotheses related to personnel appointment

Hypothesis 1 was concerned with the potential relationship between the personalities of recruiters and recruitees. Nineteen independent comparisons were undertaken, resulting in nine insignificant correlations, nine significant negative coefficients, and one significant positive value of \( r_p \) (see table 11, p. 89). In sum, ten comparisons argued for rejection of the null hypothesis, while nine tests urged acceptance. The previously described finding that teachers and administrators differ markedly in personality, coupled with the negative correlation coefficients in nine of ten significant tests, cast considerable shadow on the findings. It was not clearly demonstrated that recruiters either accept or reject candidates on the basis of well-defined personality profiles.

A supplementary test of this hypothesis produced an incidental finding of considerable interest. The personalities of individuals recruited by "the Lord" were contrasted with those of respondents who were recruited by "man" (see table 12, p. 92). The latter group exhibited a choleric/phlegmatic profile characteristic of the population as a whole, while educators perceiving "God" as their recruiter were seen as phlegmatic/cholergics. They also possessed stronger sanguine propensities and weaker melancholy traits than "man-recruited" subjects.
The unsolicited nature of the responses associated with this test prompts considerable speculation as to why the "God-recruited" group is different. Perhaps the steadiness inherent in a dominant phlegmatic temperament permits a response to spiritual things that differs from that of a bold, aggressive, hard-driving individual; and the confident self-assurance of knowing that "God has placed me here" may be manifest in a cheerful, outgoing spirit, while minimizing moodiness and anxiety.

It is also noted that the profile of "God-appointed" individuals is reminiscent of the personality associated with male educators (see table 6, p. 79). A subjective comparison of the two reveals that the former group possesses even stronger levels of phlegmatic, choleric, and sanguine traits, accompanied by a noticeably weaker melancholy tendency. Perhaps an internal sense of "mission" among Church employees is more easily felt, and expressed, by strongly phlegmatic individuals.

**Hypothesis 2** speculated that personality was in some way related to the grade level taught. Teachers in grades one and two exhibited personalities very much like those found in teachers of grades nine and ten (see table 13, p. 93). The profiles of both groups revealed a mix of choleric and phlegmatic tendencies similar to that of the entire population. In addition, they were seen as quite "average" in sociability and carefree propensities, though less perfectionistic, moody, and creative than the population as a whole.

A potential explanation of this finding may relate to the demands of the "lower-grade" classroom. Students in grades 1-2 are beginning their educational experience and, in one sense, ninth and tenth
graders are "beginning again" when they enter a secondary school environment. It may be that teachers attracted to and remaining in these grade levels are equipped, in terms of personality, for the rigors of dealing with an attention-demanding, least confident pupil populace.

Teachers in grades 3-4 and 7-8, on the other hand, were profiled as choleric/sanguines (see table 13, p. 93). Individuals assigned to these grades likely exhibit mixed personalities, in which their aggressive, energetic traits are sometimes in conflict with social, distractible, disorganized tendencies. Choleric/sanguines are often viewed by others in an all-or-nothing context. Either they are well liked or very much disliked. Perhaps the boundless energies and outgoing enthusiasm of students at these grade levels require teachers of a similar bent.

The results of the tests associated with hypothesis two do not lend themselves to strong conclusions. Twelve remaining comparisons supported acceptance of the null (i.e., there is no significant relationship). Further study of this hypothesis is indicated.

Hypothesis 3 was examined by six initial tests, each designed to explore the relationship of teacher personality to school size (see table 14, p. 96). No significant correlations were observed. A supplementary examination of the school-size variable as an expression of preference, however, produced an intriguing result.

Of the 438 individuals responding to the preference question, 34 (7.76 percent) expressed a predilection for one-teacher schools. When compared with respondents opting for the other school-size categories, teachers in this group were less energetic, bold, and assertive, not as sociable and carefree, and somewhat more anxious, creative,
and conscientious. In terms of tact, diplomacy, and flexibility they were comparable to the remaining groups (see table 15, p. 98).

A potential explanation for this finding may lie in the perceptions of the subjects. Their impressions of the occupational environment associated with one-teacher schools may be compatible with perceptions of their own personalities. They may view that niche as a job/person "fit" of special attraction.

It is not known how many respondents preferring one-teacher schools had actually experienced such an environment; but it is noteworthy that 87 of the 202 schools represented in the study (43 percent) were one-teacher institutions (see p. 59), and 88 of the 461 respondents to the question on assigned school size (19 percent) indicated placement in one-teacher settings. Demands for personnel in these schools clearly exceed the supply of teachers preferring such placement (compare data on p. 128). A more direct measure of the occupational environments associated with schools of varying size may be necessary to elucidate the propositions encompassed by hypothesis three.

Hypotheses related to personnel performance appraisal

Hypothesis 4 sought to relate the personalities of educators to levels of competence as perceived by superiors. Eleven of fourteen comparisons generated on the basis of subjectively scaled performance ratings were significant. Subjects considered to be "average" or "above average" in competence possessed distinctly similar characteristics, while the personality profiles of individuals assigned to other categories were generally dissimilar (see table 16, p. 101).

A composite profile of educators perceived as "below average"
or "clearly inferior" in performance revealed nearly equal levels of phlegmaticism and cholericism. When compared with individuals judged to be "clearly superior" in competence, the former group proved much less outgoing, sociable, and carefree—much more emotional, moody, and sensitive. The "inferior" group did not possess the drive and aggressive spirit exhibited by "superior" educators, traits which emerged progressively stronger as the perceptual ratings improved.

In three instances, the null hypothesis was confirmed. Distinctions between the personalities of "average" or "above average" and "clearly superior" employees were not significant, as was a composite correlation of subjects in the lower three categories with those receiving the two top ratings. In the latter case, the demonstrated similarities between "average" and "above average" educators no doubt muddled any possible distinctions.

If it is agreed that individual personalities enable perceptual distinctions between persons (cf., Gough, 1976; Kluckhohn, Murray & Schneider, 1953), a plausible explanation for these findings exists. School administrators apparently perceive, with a reasonable degree of consistency, the relative competency levels of their employees. Selection as a "most competent" educator, then, may not so much depend on actual performance as on personality traits. Once again, a "competent type" may be present in the population, and individuals possessing personalities compatible with the perceived "type" enjoy increased chances of recognition as desirable personnel.

Hypothesis 5 presumed that profile relationships would be found between the personalities of the "most competent" educators and those of the administrators passing judgment. In eight independent tests of
this hypothesis, four significant and four insignificant correlations were discovered (see table 17, p. 103). It will be recalled that the personalities of teaching and non-teaching personnel were markedly dissimilar (see table 8, p. 82), so the consistently negative coefficients associated with the significant comparisons were judged to be problematic. No meaningful relationship between the profiles of raters and ratees was discerned.

Hypothesis 6 postulated that personality and opportunities for advancement were related. Individuals experiencing "regression" from prior to present positions are representative of the choleric/phlegmatic profile identified in the population as a whole (see table 18, p. 105). They display bold, aggressive, energetic characteristics typical of this primary/secondary trait pattern, tempered by the flexibility and easygoing steadiness of the phlegmatic. When "regressed" subjects were compared to educators "remaining static," the former group was seen as more sociable, outgoing, and carefree, while notably stronger in choleric propensities. This finding proved puzzling in light of prior results, so a sex variable was introduced in an attempt to clarify the relationship.

Surprisingly, all comparisons of the male respondents on the basis of advancement were insignificant, while all correlations of the female groupings were significantly negative (see table 19, p. 107). "Advanced" females possessed weaker phlegmatic traits than those in the "static" and "regressed" categories. They were also less sanguine and more melancholy. Curiously, females experiencing "regression" emerged stronger than their counterparts in phlegmatic, sanguine, and choleric tendencies.
One possible explanation of this phenomenon is premised on the previously reported finding that female supervisors possess personalities unlike those of any other professional group studied (see table 9, p. 84). The primary choleric trait exhibited by the supervisors is most like that of the "advanced" females in intensity. Perhaps a "strong" personality serves to focus attention on a woman's performance and capabilities, singling her out for promotional opportunities; but a "law of diminishing returns" takes effect when the intensity of her profile exceeds an optimum level, and the administrators (largely male) responsible for placing her are repulsed by her aggression and drive.

Regardless of explanation, it is apparent that opportunities for advancement are significantly related to the personalities of female educators, though the relationship does not hold true for males. The null hypothesis is rejected in the particular instances cited above.

Hypothesis 7 was designed to explore the potential relationship between the personalities of "advanced" educators and the personalities of administrators responsible for the promotions. An unexpectedly small sample size, brought about largely by the high mobility rate of Adventist administrators, permitted only six independent tests of the hypothesis. Two coefficients were significantly negative; none were significantly positive (see table 20, p. 108). Given the pronounced dissimilarities between the personalities of administrators and employees (see table 8, p. 82; table 9, p. 84), a meaningful relationship was not apparent.

Hypotheses related to personnel mobility

Hypothesis 8 proposed a significant relationship between the
personalities of educators and their records of job stability. The average tenure in each location served as the selection variable for hypothesis testing. Employees averaging more than six years in a position exhibited a profile significantly different from that attributed to respondents with shorter terms of service (see table 21, p. 110). The least mobile subjects were characterized by evenly matched phlegmatic and choleric qualities. They were seen as calm, flexible individuals, with a fine balance of energetic, aggressive tendencies. Moodiness, emotionality, and creativity were recessive when these educators were compared with other groups. Indeed, highly mobile personnel reflected comparatively weak phlegmatic traits and a propensity for melancholy thoughts and actions.

A refined view of the relationship between personality and job stability was obtained through the introduction of a sex variable (see table 22, p. 112). Profile distinctions among males were most apparent when the least mobile group (i.e., averaging more than six years per location) was contrasted with its more mobile counterparts. The population-reflected choleric/phlegmatic trait pattern held true for the most mobile subjects, shifted to a phlegmatic/choleric profile in the three-to-six-year category, and intensified in a dramatic way as stability increased to a more-than-six-year average.

Stable males revealed the dominant easygoing, tactful, flexible traits of the diplomat, accompanied by minimal anxiety and sensitivity. The relaxed, "take-it-as-it-comes" attitude of the stable males may, in fact, explain their ability to remain in one location for long periods of time. Hard-driving, choleric males, on the other hand, also possessed of more prominent melancholy tendencies, may find "settling
down" contrary to their natures, or be subject to interpersonal frictions which necessitate more frequent moves.

The personality profiles of female respondents, though similar in their primary/secondary pattern, differed from the males in relative strength and overall range. In keeping with the sex-related findings previously reported (see table 6, p. 79), the women did not match, at their highest levels of intensity, the phlegmatic characteristics of the men. Conversely, females reflected consistently stronger melancholy tendencies. The generally "compressed" profiles of the females produced a significant correlation only when subjects with less than three years per location were contrasted with those exhibiting a more stable record.

A final comparison was that obtained by comparing the percentages of male and female respondents assigned to each stability-related category. Of the 220 female subjects for whom mobility data was available, 46.8 percent averaged less than three years per location, 40 percent stayed from three to six years, and 13.2 percent remained more than six years. Of the 175 males sampled, 46.9 percent averaged less than three years in one place, 45.1 percent moved every three to six years, and only 8 percent enjoyed an average tenure of more than six years. Seventh-day Adventist educators constitute a highly mobile population.

Hypothesis 9 presumed to examine the relationship between administrator's personalities and the rates of personnel turnover which they experience. For reasons explained in chapter IV, no test of this hypothesis was conducted.
Conclusions

Among the outcomes of this study were a number of specific conclusions, each related to particular issues addressed at the outset of the project. The population parameters described in chapter III (i.e., K-10 Seventh-day Adventist educators of non-black conferences in North America) and the personality constructs specified in chapters I and III, though not reiterated in each instance, serve as limits on the generalizability of each conclusion.

1. Adventist educators collectively exhibit a choleric/phlegmatic personality.

2. Male and female educators collectively differ in their personalities. Males are, in general, more phlegmatic and sanguine; females more choleric and melancholy.

3. The population is geographically and experientially heterogeneous.

4. Adventist educators are highly mobile, with more than 45 percent of the population averaging less than three years in a given position.

5. Teaching and non-teaching personnel differ significantly in personality. Teachers are collectively more melancholy than non-teachers, while the latter are more phlegmatic, sanguine, and choleric.

6. Personality is significantly correlated with professional position. Teachers and teacher/principals possess similar personalities, principals and superintendents are likewise similar, while supervisors differ from all other categories.

7. No meaningful relationship exists between personality and
years of experience.

8. No meaningful relationship exists between the personalities of educators and the personalities of the administrators responsible for hiring them.

9. The personalities of educators who strongly perceive that "the Lord" recruited them differ significantly from the personalities of individuals recruited by men. "God-recruited" personnel are collectively more phlegmatic, sanguine, and choleric; "man-recruited" educators more melancholy.

10. No meaningful relationship exists between the personalities of teachers and the grade levels to which they are assigned.

11. No meaningful relationship exists between the personalities of educators and the size of school to which they are assigned.

12. The personalities of educators expressing a preference for one-teacher schools differ significantly from the personalities of educators preferring larger schools. The former group is notably less sanguine and choleric than the latter.

13. Demands for personnel in one-teacher schools clearly exceed the supply of teachers preferring such placement.

14. Personality is significantly correlated with levels of perceived competence. "Most competent" personnel are collectively more phlegmatic, sanguine, and choleric than "least competent" individuals; while the latter are more melancholy.

15. No meaningful relationship exists between the personalities of educators judged "most competent" and the personalities of the supervisors passing judgment.

16. The personalities of female educators are significantly

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correlated with their opportunities for advancement.

17. No meaningful relationship exists between the personalities of educators selected for advancement and the personalities of the administrators making the selections.

18. The personalities of highly stable educators differ significantly from the personalities of highly mobile educators. Those moving most frequently are collectively more melancholy than those with outstanding records of job stability, while the latter are more phlegmatic and choleric.

Recommendations for Further Study

As in any project of this sort, the questions raised by the results often outnumber the questions answered. Further study is recommended in each of the following areas:

1. The distinct personalities of the population and its subgroups. This study provided a temperament profile of Adventist educators—an initial step. Using other widely accepted instrumentation, a broader, more complete picture can be developed.

2. Experimentally controlled research into cause and effect. The correlational findings in this study lead only to speculation about cause and effect. The significant relationships between personality and job-related variables suggest numerous avenues of meaningful study.

3. The significance of personality in the emergence and resolution of personnel problems. The results of this study have demonstrated numerous interactions between personality and personnel-related decisions (e.g., recruitment, assignment, advancement, competence). Studies of administrative practice in a field setting could provide
the knowledge necessary to effectively link personality factors and personnel procedures.

4. **Identification and exploration of personality "types."** A number of the findings associated with this study suggest that unique personality "types" might be found for certain of the population's subgroups. Additional research designed to isolate these "types," coupled with properly conducted studies of cause and effect, could enable educational administrators to someday accurately predict employee success. Effective person/job matching could reduce turnover, decrease resource expenditures, improve performance . . . ad infinitum.

5. **The development and validation of personality screening techniques.** Accompanying the taxonomical refinement of personality "types" would come an interest in properly screening job applicants in both objective and subjective ways. Interviewing, paper/pencil, and referral procedures might be developed to assure the best possible job fit, thereby insuring organizational effectiveness.

6. **Exploration and extension of the current findings.** Possible permutations of the selection variables associated with this study are legion. The introduction of a competency factor, for example, in the correlations of personality and job stability may have produced interesting results. Perhaps a restructuring of the years-of-experience categories would have resulted in different outcomes. The possibilities for refining and extending these initial findings are endless.

7. **Motivation, employee development, and job satisfaction in an educational context.** Abundant research has been conducted in the areas of employee motivation, training, and satisfaction which can serve as a stepping stone to further exploration. Given the choleric/
phlegmatic personality of the population as a whole, it seems reason-
able to seek the best ways of motivating, teaching, and satisfying
Seventh-day Adventist educators.
APPENDIX A

INSTRUMENTATION

Temperament Inventory
Demographic Questionnaire
PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

142-147
APPENDIX B

CORRESPONDENCE

Letter to Lake Union Director of Education
Proctoring Instructions
Letters Requesting Participation
Thank-You Letter to Respondents
Self-Interpretation Guide
9 August 1979

F. R. Stephan, Director of Education
Lake Union Conference of Seventh-day Adventists
125 College Avenue
Berrien Springs, MI 49103

Dear Elder Stephan:

The materials necessary for my research project are enclosed. Thank you very much for expending the time and energy necessary to assure a successful venture. I certainly hope that the results will be truly useful in future planning within the Church structure.

Please utilize a copy of the instructions when administering the instrument. This will lend consistency throughout the conferences in both unions. I am enclosing additional copies of the instructions in the event that you are unable to attend all conventions— the local superintendent could then take responsibility for completing the necessary steps.

A couple of reminders: Because of their unique geographic nature, I have elected to exclude the regional conferences. In addition, only personnel in the K-10 program should be included—no secondary teachers from senior academies. It is important that every individual in every system participate if the results are to be meaningful (i.e., all teachers, teacher/principals, principals, supervisors, and superintendents).

I suspect that you will incur some incidental expenses in the process of gathering this data. Kindly report them and I will be happy to reimburse accordingly.

Thank you once again for providing access to your Union. I consider it a distinct honor to have you personally assist in the project, and I trust that the results of the study will be of specific benefit to those involved. Upon completion of the study, I will be most happy to provide summaries of the findings and conclusions for interested participants.

Sincerely,

Merle Greenway

Enclosures
9 August 1979

To: SUPERINTENDENTS, CENTRAL AND LAKE UNION CONFERENCES

Re: Proctoring the Temperament Inventory and Demographic Data Sheet

Gentlemen:

Your kind assistance in this project is much appreciated. I trust that the results of this study will be of direct value to each of you in your heavy responsibilities as personnel managers.

This study is intentionally restricted to K-10 personnel—no secondary personnel from senior academies. In addition, it is most important that every individual in your system participate if the results are to be meaningful (teachers, teacher/principals, principals, supervisors, and superintendents). Please include yourself and your associates.

You may incur some incidental expenses in the process of gathering this data. If so, please report same and I will be happy to reimburse you accordingly.

Please adhere strictly to the procedures outlined below as you administer the Temperament Inventory and its accompanying data sheet. Doing so will assure consistency from one conference to another throughout the two unions.

INSTRUCTIONS

Step 1 -- Read the following introductory remarks verbatim:

"The Seventh-day Adventist Church operates, without doubt, the finest parochial school system in the world. We are happy that you have chosen to be an integral part of that system; and we trust that the ensuing school year will be a rewarding, pleasant experience for each of you.

"A number of you have faithfully served your Lord and your Church for many years, and you will recall numerous modifications in personnel policies during that time. Continued evolution of our personnel practices may be expected; and some of us believe that an understanding of the role of human temperament in the job environment will prove useful in devising and adopting truly meaningful policies.

"An individual's temperament influences nearly everything he or she does. Work habits, family life, interpersonal relationships, spiritual interests—all seem to be affected. Recognizing this fact, a number of interesting questions may be posed with respect to the operation of our Adventist school system.
"What is the temperament of the 'typical' Adventist teacher? Does an individual's temperament relate to such things as grade level assignment, size of school, opportunities for advancement, and job stability? Should temperament be one of many factors considered in the appointment, appraisal, and transfer of personnel?

This project has been undertaken to discover at least partial answers to these questions. In order to be successfully completed, the study requires a large sample--and that is where we are counting on you. By collecting data from more than 500 participants in nine conferences, we hope to make some reasonable, valid observations concerning the role of temperament in personnel processes.

Are there benefits for you as a participant? Yes, we think so. If you would like to better understand your own temperament, this project will provide that opportunity. The Temperament Inventory has been validated with a sample of more than 4000 individuals. It is not a test of emotional adjustment, but rather a device capable of assisting you in the understanding of your own unique gifts and talents. Immediately upon receipt of the instrument, we will score and return it to you with explanatory material for self-interpretation. Upon conclusion of the study, we will also make available a summary of the findings, and you will be able to relate your unique temperament profile to the overall picture.

Will we handle the information you provide in an ethical manner? The answer is most assuredly 'yes'! Your names will enable us to do some grouping before the data is fed into the computer (a necessary part of the project), but once your Inventory is scored and returned to you, it will be impossible to attach names to the data. No one will see your responses other than the scorer.

Thank you each one for contributing to the success of this endeavor."

Step 2 -- Make such additional remarks as you deem appropriate.

Step 3 -- Distribute the materials (one Temperament Inventory with attached coversheet and one long envelope per individual). Check to see that each participant has a writing instrument (type unimportant).

Step 4 -- Read the following instructions verbatim:

"You now have before you a demographic data sheet and a Temperament Inventory. Please check to be sure that the identification numbers in the top right corner of each document correspond.

"Let's look now at the demographic data sheet. The requested information is absolutely vital to the success of this project. The proper categorization of data is dependent
upon accurate and complete responses to each item in this section. Please answer, right now, each question that is applicable to you."

(Pause until everyone is finished.)

"Look now at the cover page of the Temperament Inventory. Four responses are called for at the top of the page. This information will enable us to score the Inventory correctly, contact you if we have questions, and return the Inventory to you. Please complete this section now."

(Pause until everyone is finished.)

"The Temperament Inventory is not a test. Temperaments vary considerably, and one combination of traits is no better than any other. You will notice that some statements closely parallel each other in thought and wording. This is not accidental, but by design. Omitting items will render your efforts invalid, and the report you receive will be meaningless. Now, please read and respond to the directions provided on the cover of the Inventory."

(Pause until everyone is finished.)

Step 5 -- Read the following instructions verbatim:

"Please fold the TI, along with its coversheet, and insert it in the envelope provided. Write your name on the face of the envelope (this is very important) and seal it. Remember, no one but the scorer will see your responses—confidentiality is assured.

"Thank you for participating in this project. You may expect the return of your inventories, together with explanatory material, approximately three weeks after we receive them."

Step 6 -- Collect the sealed envelopes and protect against loss.

Step 7 -- In a separate meeting of full-time principals, supervisors, and superintendents, please categorize the envelopes as follows:

Distribute each envelope, by respondent's name, to the individual most knowledgeable concerning the employee's job performance (i.e., a full-time principal would be given the envelopes of those serving in his/her school, a supervisor the names of those whom he/she has most closely supervised, and the superintendent the names of those remaining). When the envelopes are thus distributed, ask each individual to write his/her title (not name) in the top right corner of each envelope assigned.

Next, using a five-point scale (with 5 highest and 1 lowest), ask each supervisory person to subjectively judge the professional competence of the employees named on the
envelopes assigned to them. Record that judgment by placing the appropriate numeral in the top right hand corner as well (no written comments, please).

Do not redistribute the envelopes. Only one judgment per employee is desired. Please maintain confidentiality—do not open the envelopes and do not write your names or comments on them.

Lest some of you be concerned about the potential dangers of "labeling" employees, please understand that we are judging in relative terms, anonymously, with no explanatory information on the envelopes; and with the provision that all envelopes will be destroyed as soon as the data is encoded for computer input.

Step 7 is very important in dealing with certain questions in the study, namely "Is there a relationship between personality and the selection of an educator as 'most competent'?" We will deal with your responses in a totally ethical manner. Thank you for assisting in the procedure outlined above.

Step 8 -- Collect all sealed envelopes, package, and return to either the union director of education or me, as the case dictates. Postage costs, if any, will be promptly reimbursed.

Step 9 -- Accept a hearty, sincere thank you for your significant contribution to the project. Await notification of results and a summary of conclusions and recommendations.

As I reread the instructions, "clear as mud" appears to be an apt description. Because of the importance of accurate and complete data collection, and the great difficulty in returning for additional information, I will welcome collect phone calls if you have any questions. My home telephone number is (307) 754-5832 and the business phone is (307) 754-2129.

Sincerely,

Merle Greenway

Enclosures
9 March 1980

SELECTED EDUCATORS, K-10
Central and Lake Union Conferences

Dear Friend:

Some months ago I began a study of human temperament and its role in the work environment of professional Adventist educators. More than 500 of your colleagues have kindly consented to participate.

Most respondents completed the enclosed Temperament Inventory at local conference in-service meetings. For some reason we missed receiving a response from you. I would like to provide the opportunity to participate, and your superintendent has graciously granted permission to do so.

Please take a few moments to complete the Temperament Inventory, along with the attached coversheet. There are no "right" or "wrong" responses. You need not fear violations of confidentiality. No one other than the scorer will be able to match names and responses. A stamped, addressed return envelope is provided.

If you will include your name on the cover of the TI itself, I will return the scored instrument to you with brief explanatory material for self-interpretation. Then, upon completion of the study, I will also make available a summary of the findings, and you will be able to relate your unique temperament profile to the overall view.

Thank you very much for participating in the project. May God bless you abundantly as you continue in service for Him!

Sincerely,

Merle Greenway

Enclosures
9 March 1980

SELECTED EDUCATORS
North American Division

Dear Friend:

For some months now I have been conducting a study of human temperament and its role in the work environment of professional Adventist educators. More than 500 individuals have kindly consented to participate.

In compiling the data received thus far, your name has frequently appeared as one who is or has been involved in supervisory and/or recruitment functions. Your participation in the study will do much to improve the breadth and validity of subsequent findings.

Please take a few moments to complete the enclosed Temperament Inventory, along with the attached coversheet. You need not fear violation of confidentiality. No one other than the scorer will be able to match names and responses. A stamped, addressed envelope is enclosed.

If you will include your name on the cover of the TI itself, I will return the scored instrument to you with brief explanatory material. Then, upon completion of the study, I will also make available a summary of the findings, and you will be able to relate your unique temperament profile to the overall view.

Thank you very much for participating in the project. May God bless you abundantly as you continue in service for Him!

Sincerely,

Merle Greenway

Enclosures
9 March 1980

SELECTED EDUCATORS, K-10
Central and Lake Union Conferences

Dear Friend:

Approximately eight months ago, I set about devising a study of human temperament and its role in the work environment of professional Adventist educators. In the ensuing weeks, more than 500 individuals kindly consented to participate in the data collection process. The last responses are just now arriving, and it appears that the response rate will exceed 95%.

You were one of the participants; and, in a sincere effort to make your participation worthwhile, I promised a return of the scored instrument with brief explanatory material. Both are enclosed. If you were one of those concerned with confidentiality, please be assured that you and the scorer have been and will be the only ones to view your profile with name attached. I am returning the items in sealed envelopes via your conference office to minimize postage expense.

As for the study itself, there is much yet to be done. I anticipate a completion date of August, 1980, barring unusual circumstances. Upon conclusion of the study, I will make available a summary of the findings, and you will be able to relate your unique temperament profile to the overall view.

Should you find the concept of human temperament especially intriguing, any sizeable library will offer books on personality which will be of interest. A small booklet describing temperament in general and the Temperament Inventory in particular is published by Andrews University Press. Entitled Understanding Your Temperament, it is authored by Peter Blitchington and Robert Cruise, and offers a "self-analysis" of temperament "with a Christian viewpoint."

Thank you once again for participating in the project. Best wishes as you continue in service for Him whose temperament is "altogether lovely!"

Sincerely,

Merle Greenway

Enclosure
An individual's temperament affects nearly every aspect of his/her life. Moral development, academic achievement, vocational choice, parenting and family life, popularity, interpersonal relationships, spiritual growth—all have been shown to be closely intertwined with human temperament.

Examining your unique combination of temperament traits is a good place to begin understanding your behavior and attitudes. Much evidence indicates that temperament is the largely biological, inherited aspect of personality; and, as such, is unlikely to change significantly during the course of your life. As you seek to interpret your scores on the Temperament Inventory (TI), you begin to interpret you!

The Four-Temperament Typology

The Greek physician Hippocrates is generally credited with postulating the four-temperament concept of personality. The predominance of one or more bodily "humors" (yellow bile, black bile, blood, or phlegm) in a given individual was believed to produce choleric (aggressive, irritable), melancholic (moody, depressed), sanguine (sociable, cheerful), and phlegmatic (listless, calm) traits.

Centuries later, Carl Jung, a Swiss psychiatrist, suggested that temperament traits were really two in number. He viewed individuals as either shy, inward, and reserved (introverted), or carefree, outgoing, and sociable (extraverted).

In the last three decades, Hans Eysenck has conducted extensive research utilizing the typologies of Hippocrates and Jung. This British psychologist has also argued for the validity of an additional construct—stability versus neuroticism. He has suggested that humans vary along a continuum from high emotional self-control to extreme, sometimes unpredictable lack of control. The Eysenck Personality Inventory (EPI) was devised to assess the presence and strength of personality traits along the introversion/extraversion and stability/instability continuums. Resultant scores placed a subject within one of four quadrants (see diagram) corresponding to the Hippocratic scheme.

The Temperament Inventory

Peter Blitchington and Robert Cruise, professors at Andrews University, concluded that Eysenck's approach was basically sound, yet failed to account

(over)
sufficiently for complex temperament profiles. They argued that temperament
traits do not exist in solo, and that an instrument designed to assess the
relative strength of each trait would be more meaningful. The TI enables a
look at "primary" and "secondary" temperament traits, thus providing a clearer
picture of each subject's temperament profile.

The TI is thoroughly researched and validated, using a sample of more
than 4500 individuals. It provides a score for each of the four temperament
constructs and permits ready self-analysis opportunities by offering easily
understood percentile rankings.

Please locate the "Score Summary" page of your TI. The raw scores
derived from your responses were converted to percentiles which range from
1 to 99 percent. A score of 3, for example, indicates that 95% of the sub-
jects in the original sample scored as high or higher than you did on that
particular trait. A score of 93, on the other hand, indicates that you scored
higher than 95% of those taking the test.

Percentiles thus show the intensity of each trait in you as compared
with others taking the test. It happens that some individuals score high in
one or more traits. We might call them "strong" personalities. Others score
very low in all four traits. We might call them "weak" personalities.

Think also in terms of your particular combination of traits. Your
highest percentile ranking indicates a "primary" trait and your second highest
score reveals a "secondary" trait. Obviously, secondary traits have a great
impact upon your temperament profile. A phlegmatic/sanguine individual is
decidedly different from a phlegmatic/melancholic person. Sometimes, of
course, the scores lie very close together, and differentiation between pri-
mary and secondary traits is less meaningful.

The chief characteristics ascribed to each temperament trait are listed
below. Please keep in mind that some variance does occur, and these descrip-
tors should not be viewed as rigid boundaries for the temperament types.

<table>
<thead>
<tr>
<th>Phlegmatic</th>
<th>Sanguine</th>
<th>Choleric</th>
<th>Melancholic</th>
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<tbody>
<tr>
<td>calm</td>
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<td>active</td>
<td>moody</td>
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<td>sensitive</td>
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<td>talkative</td>
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<td>perfectionistic</td>
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<td>lively</td>
<td>impulsive</td>
<td>creative</td>
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<td>undecided</td>
<td>reserved</td>
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<td>insensitive</td>
<td>sober</td>
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<tr>
<td>listless</td>
<td>expressive</td>
<td>irritable</td>
<td>conscientious</td>
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</table>

It may be of additional interest to note how the four temperaments
relate to the introversion/extroversion and stability/instability constructs
(see diagram). If, for example, your primary-secondary traits are phlegmatic/
sanguine, you are likely an emotionally stable individual a bit on the intro-
verted side.

For additional information, consult texts on personality psychology or
popular titles found in any large library. For an easy-to-read discussion of
the TI and its interpretation, see Understanding Your Temperament by Peter
Blitchington and Robert Cruise. This 38-page self-analysis guide is published
APPENDIX C

ILLUSTRATIONS

Figures 2-58
Fig. 2. Personality profile of the sample as a whole. Numbers indicate percentile equivalents for each profile element (see table 5, p. 79).
Fig. 3. Personality profiles by sex. Numbers indicate percentile equivalents for each profile element (see table 6, p. 79). Males represented by solid lines; females by dotted lines. ($r = -.722$, $p = .01$)
Fig. 4. Personality profiles by geographic region. Numbers indicate percentile equivalents for profile element (see table 7, p. 82). Central Union Conference represented by solid lines; Lake Union Conference by dotted lines. ($r_p = -.060, p > .10$)
Fig. 5. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 8, p. 82). Teaching personnel represented by solid lines; non-teaching personnel by dotted lines. ($r_p = -.956, p = .01$)
Fig. 6. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Teachers represented by solid lines; teacher/principals by dotted lines. \( r_p = +.670, p = .05 \)
Fig. 7. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Teachers represented by solid lines; principals by dotted lines. ($r_p = -.876, p = .01$)
Fig. 8. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Teachers represented by solid lines; supervisors by dotted lines. ($r_p = -0.798, p = 0.01$)
Fig. 9. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Teachers represented by solid lines; superintendents by dotted lines. ($r_p = -0.884, p = 0.01$)
Fig. 10. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Teacher/principals represented by solid lines; principals by dotted lines. ($r_p = -.851$, $p = .01$)
Fig. 11. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Teacher/principals represented by solid lines; supervisors by dotted lines. ($r_p = -0.771, p = .01$)
Fig. 12. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Teacher/principals represented by solid lines; superintendents by dotted lines. ($r_p = -.861, p = .01$)
Fig. 13. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Principals represented by solid lines; supervisors by dotted lines. ($r_p = -.634, p = .01$)
Fig. 14. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Principals represented by solid lines; superintendents by dotted lines. ($r_p = +.742, p = .05$)
Fig. 15. Personality profiles by professional position. Numbers indicate percentile equivalents for each profile element (see table 9, p. 84). Supervisors represented by solid lines; superintendents by dotted lines. ($r_p = -.648, p = .01$)
Fig. 16. Personality profiles by years of experience. Numbers indicate percentile equivalents for each profile element (see table 10, p. 86). Educators with 1-5 years represented by solid lines; with 11-15 years by dotted lines. ($r = +.723, p = .05$)
Fig. 17. Personality profiles of recruiters and recruits. Numbers indicate percentile equivalents for each profile element (see table 11, p. 89). Recruiter #078 represented by solid lines; recruits by dotted lines. ($r_p = -.692, p = .01$)
Fig. 18. Personality profiles of recruiters and recruitees. Numbers indicate percentile equivalents for each profile element (see table 11, p. 89). Recruiter #085 represented by solid lines; recruitees by dotted lines. ($r_p = -.812, p = .01$)
Fig. 19. Personality profiles of recruiters and recruitees. Numbers indicate percentile equivalents for each profile element (see table 11, p. 89). Recruiter #104 represented by solid lines; recruitees by dotted lines. ($r_p = +.701, p = .05$)
Fig. 20. Personality profiles of recruiters and recruitees. Numbers indicate percentile equivalents for each profile element (see table 11, p. 89). Recruiter #105 represented by solid lines; recruitees by dotted lines. (r_p = -.678, p = .01)
Fig. 21. Personality profiles of recruiters and recruitees. Numbers indicate percentile equivalents for each profile element (see table 11, p. 89). Recruiter #107 represented by solid lines; recruitees by dotted lines. ($r_p = -.724, p = .01$)
Fig. 22. Personality profiles of recruiters and recruitees. Numbers indicate percentile equivalents for each profile element (see table 11, p. 89). Recruiter #108 represented by solid lines; recruitees by dotted lines. ($r_p = -.594$, $p = .02$)

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Fig. 23. Personality profiles of recruiters and recruitees. Numbers indicate percentile equivalents for each profile element (see table 11, p. 89). Recruiter #222 represented by solid lines; recruitees by dotted lines. ($r_p = -.677, p = .01$)
Fig. 24. Personality profiles of recruiters and recruitees. Numbers indicate percentile equivalents for each profile element (see table 11, p. 90). Recruiter #501 represented by solid lines; recruitees by dotted lines. ($r_p = -0.742, p = .01$)
Fig. 25. Personality profiles of recruiters and recruitees. Numbers indicate percentile equivalents for each profile element (see table 11, p. 90). Recruiter #541 represented by solid lines; recruitees by dotted lines. ($r_p = -.653, p = .01$)
Fig. 26. Personality profiles of recruiters and recruitees. Numbers indicate percentile equivalents for each profile element (see table 11, p. 90). Recruiter #551 represented by solid lines; recruitees by dotted lines. ($r = -.823, p = .01$)
Fig. 27. Personality profiles of "man" and "God" recruits. Numbers indicate percentile equivalents for each profile element (see table 12, p. 92). "Man" recruits represented by solid lines; "God" recruits by dotted lines. ($r_p = -.744, p = .01$)
Fig. 28. Personality profiles by assigned grade levels. Numbers indicate percentile equivalents for each profile element (see table 13, p. 93). Grades 1-2 represented by solid lines; grades 9-10 by dotted lines. ($r_p = 0.823, p = 0.02$)
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Fig. 31. Personality profiles by preferred school size. Numbers indicate percentile equivalents for each profile element (see table 15, p. 98). Subjects preferring one-teacher school represented by solid lines; three- or four-teacher school by dotted lines. ($r_p = -.610, p = .01$)
Fig. 32. Personality profiles by preferred school size. Numbers indicate percentile equivalents for each profile element (see table 15, p. 98). Subjects preferring one-teacher school represented by solid lines; five- or more-teacher school by dotted lines. \( r_p = -0.631, p = .01 \)
Fig. 33. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 101). Rating 1 represented by solid lines; rating 2 by dotted lines. ($r_p = -.964$, $p = .01$)
Fig. 34. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 101). Rating 1 represented by solid lines; rating 3 by dotted lines. ($r_p = -.929, p = .01$)
Fig. 35. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 101). Rating 1 represented by solid lines; rating 4 by dotted lines. \((r_p = -.921, p = .01)\)
Fig. 36. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 101). Rating 1 represented by solid lines; rating 5 by dotted lines. ($r_p = -.890$, $p = .01$)
Fig. 37. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 101). Rating 2 represented by solid lines; rating 3 by dotted lines. ($r_p = -.767, p = .01$)
Fig. 38. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 101). Rating 2 represented by solid lines; rating 4 by dotted lines. ($r_p = -.792, p = .01$)

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Fig. 39. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 101). Rating 2 represented by solid lines; rating 5 by dotted lines. ($r_p = -.901, p = .01$)
Fig. 40. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 101). Rating 3 represented by solid lines; rating 4 by dotted lines. ($r_p = +.776, p = .02$)
Fig. 41. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 102). Ratings 1-2 represented by solid lines; rating 5 by dotted lines. ($r_p = -.871$, $p = .01$)
Fig. 42. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 102). Ratings 1-3 represented by solid lines; rating 5 by dotted lines. \( r_p = -.621, p = .01 \)
Fig. 43. Personality profiles by perceived levels of competence. Numbers indicate percentile equivalents for each profile element (see table 16, p. 102). Ratings 1-2 represented by solid lines; ratings 4-5 by dotted lines. ($r_p = -.774, p = .01$)
Fig. 44. Personality profiles of "most competent" educators and their raters. Numbers indicate percentile equivalents for each profile element (see table 17, p. 103). Rater #016 represented by solid lines; ratees by dotted lines. ($r_p = -0.576, p = 0.02$)
Fig. 45. Personality profiles of "most competent" educators and their raters. Numbers indicate percentile equivalents for each profile element (see table 17, p. 103). Rater #501 represented by solid lines; ratees by dotted lines. \( r_p = -.511, p = .05 \)
Fig. 46. Personality profiles of "most competent" educators and their raters. Numbers indicate percentile equivalents for each profile element (see table 17, p. 103). Rater #542 represented by solid lines; ratees by dotted lines. ($r_p = -.553$, $p = .02$)
Fig. 47. Personality profiles of "most competent" educators and their raters. Numbers indicate percentile equivalents for each profile element (see table 17, p. 103). Rater #551 represented by solid lines; ratees by dotted lines. ($r_p = -.482, p = .05$)
Fig. 48. Personality profiles by opportunities for advancement. Numbers indicate percentile equivalents for each profile element (see table 18, p. 105). Regressed represented by solid lines; remained static by dotted lines. ($r_p = -0.595, p = 0.02$)
Fig. 49. Personality profiles by opportunities for advancement (females). Numbers indicate percentile equivalents for each profile element (see table 19, p. 107). Advanced represented by solid lines; regressed by dotted lines. ($r_p = -.830, p = .01$)
Fig. 50. Personality profiles by opportunities for advancement (females). Numbers indicate percentile equivalents for each profile element (see table 19, p. 107). Advanced represented by solid lines; remained static by dotted lines. ($r_p = -0.692, p = 0.01$)
Fig. 51. Personality profiles by opportunities for advancement (females). Numbers indicate percentile equivalents for each profile element (see table 19, p. 107). Regressed represented by solid lines; remained static by dotted lines. \( r_p = -0.832, p = .01 \)
Fig. 52. Personality profiles of "advanced" educators and their recruiters. Numbers indicate percentile equivalents for each profile element (see table 20, p. 108). Recruiter #085 represented by solid lines; recruitees by dotted lines. ($r = -0.945$, $p = 0.01$)

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Fig. 53. Personality profiles of "advanced" educators and their recruiters. Numbers indicate percentile equivalents for each profile element (see table 20, p. 108). Recruiter #222 represented by solid lines; recruitees by dotted lines. ($r = -.638$, $p = .01$)
Fig. 54. Personality profiles by records of job stability. Numbers indicate percentile equivalents for each profile element (see table 21, p. 110). Less than three years represented by solid lines; more than six years by dotted lines. ($r_p = -0.844$, $p = .01$)
Fig. 55. Personality profiles by records of job stability. Numbers indicate percentile equivalents for each profile element (see table 21, p. 110). Three to six years represented by solid lines; more than six years by dotted lines. ($r_p = -0.563$, $p = .02$)
Fig. 56. Personality profiles by records of job stability (male). Numbers indicate percentile equivalents for each profile element (see table 22, p. 112). Less than three years represented by solid lines; more than six years by dotted lines. ($r_p = -.780, p = .01$)
Fig. 57. Personality profiles by records of job stability (males). Numbers indicate percentile equivalents for each profile element (see table 22, p. 112). Three to six years represented by solid lines; more than six years by dotted lines. \( r_{p} = -.547, p = .05 \)
Fig. 58. Personality profiles by records of job stability (females). Numbers indicate percentile equivalents for each profile element (see table 22, p. 112). Less than three years represented by solid lines; more than six years by dotted lines. ($r_p = -0.740, p = 0.01$)
APPENDIX D

RAW SCORE/PERCENTILE CONVERSION TABLE

Table 23
TABLE 23
RAW SCORE/PERCENTILE CONVERSION TABLE
FOR THE TEMPERAMENT INVENTORY

<table>
<thead>
<tr>
<th>Raw Scores</th>
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<th>Choleric</th>
<th>Melancholy</th>
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"What Everybody Knows--Or Do They?" Time, 14 February 1964, p. 43.


VITA

NAME: Merle Alan Greenway

DATE AND PLACE OF BIRTH: 25 August 1948; Walla Walla, Washington

PROFESSIONAL TRAINING:

      (Major: Elementary Education; Minors: Biology, Music)
1973  M.Ed., Walla Walla College
      (Major: Educational Administration)
1981  Ed.D., Andrews University, Berrien Springs, Michigan
      (Major: Educational Administration; Cognate: Curriculum
      and Instruction)

PROFESSIONAL EXPERIENCE:

1970-72  Teacher, Laurelwood Elementary School, Gaston, Oregon
1972-73  Dormitory dean/teacher, Hawaiian Mission Academy,
         Honolulu, Hawaii
1973-75  Teacher/administrative assistant, Kailua Mission
         School, Kailua, Hawaii
1975-77  Vice-principal, Lincoln Adventist Schools, K-12, Lin-
         coln, Nebraska (Primarily functioned as principal,
         Helen Hyatt Elementary School)
1977-80  Superintendent of schools/teacher, Wyoming Conference
         of Seventh-day Adventists, Casper, Wyoming
1980-    Superintendent of schools, New Jersey Conference of
         Seventh-day Adventists, Trenton, New Jersey

PROFESSIONAL PUBLICATIONS:

1974  "The Moving Van Syndrome."  Journal of Adventist Educa-
      tion (December)
1978  "Performance Appraisal--Should SDA Schools Use It?"
      Journal of Adventist Education (December)
1979  "An Introduction to Theory for 'Practical' School Admini-
      strators."  Journal of Adventist Education (Accept-
      ed for publication)
1980  "Committee Leadership Workshop."  A syllabus for use in
      training committee leaders and participants, issued
      by the New Jersey Conference Office of Education.

PROFESSIONAL MEMBERSHIPS:

1979-    Phi Delta Kappa
1980-    Bible Textbook Steering Committee, General Conference
         of Seventh-day Adventists