AN EXAMINATION OF THE INTERRELATION AMONG AUTHORITARIAN PERSONALITY, CRITICAL PRACTICALITY AND SELECTED VARIABLES OF TEACHER BEHAVIOR

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This is to certify that the

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George R. Myers
Major professor

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ABSTRACT

AN EXAMINATION OF THE INTERRELATION AMONG AUTHORITARIAN PERSONALITY, CRITICAL PRACTICALITY AND SELECTED VARIABLES OF TEACHER BEHAVIOR

by Albert Walden Ends, Jr.

The Problem:

The major concern of this study was to investigate, measure, and discuss (1) the degree to which the characteristics of authoritarian personality and the characteristics of critical practicality exist among male and female Student Teacher Education Program intern teachers, teaching in grades three, four and five; (2) the manner in which these characteristics of personality relate to the selected aspects of teacher behavior among intern teachers; and (3) the intern teacher's cognition of the behavior of most teachers in regard to the selected variables of teacher behavior.

The Method:

Hypothesizing that the ingredients for fostering change in teaching are the attitudes and behaviors of classroom teachers, this study set out to ascertain whether significant

interrelations were present among two selected variables of personality and eleven selected variables of teacher behavior. The sample was obtained from twenty-six Student Teacher Education Program intern teachers, teaching in grades three, four and five, enrolled in elementary education at Michigan State University.

The selected variables of personality which were examined are:

1. the characteristics of authoritarian personality, and
2. the characteristics of critical practicality.

The selected variables of teacher behavior which were studied are:

1. Dull-Stimulating Behavior
2. Nonanalytical-Analytical Behavior
3. Personal Convenience-Children's Welfare Behavior
4. Autocratic-Democratic Behavior
5. Harsh-Kindly Behavior
6. Stereotyped-Original Behavior
7. Inflexible-Adaptable Behavior
8. Aprofessional-Professional Behavior
9. Circumventor-Conformer Behavior
10. Insecure-Secure Behavior
11. Dissatisfied-Satisfied Behavior

In order to accomplish the purposes of this study, four test instruments were selected for use in obtaining data. The instruments that were selected are as follows:

1. California "F" Scale
2. Hidden Shapes Test
3. Linear Cognition Scales
4. Intern Teacher Behavior Scale

The mensuration of the interrelations among the selected personality variables and the selected behavioral variables was accomplished via the application of Pearson's Product Moment Correlation for each set of variables tested. In addition to testing the total group in examining the questioned relationships, the male and female sub-groups were studied, through the utilization of Fisher's Logarithmic Transformation of *r*, in order to determine significant differences between these groups.

The Findings:

1. No significant relationship exists between one's potential for authoritarian behavior and his index of critical practicality.
2. No significant relationship exists between authoritarian personality and one's observed behavior within the classroom.
3. A significant relationship exists between critical practicality and one's observed behavior within the classroom on two of the eleven selected variables of teacher behavior.

4. A significant relationship exists between authoritarian personality and one's cognition of teacher behavior, as measured on a linear scale, on one of the eleven selected variables of teacher behavior.

5. No significant relationship exists between critical practicality and one's cognition of teacher behavior, as measured on a linear scale.

6. A significant relationship exists between authoritarian personality and one's cognition of teacher behavior, as measured in a structured interview, on four of the eleven selected variables of teacher behavior.

7. No significant relationship exists between critical practicality and one's cognition of teacher behavior, as measured in a structured interview.

8. A significant relationship exists between one's cognition of teacher behavior as measured on a linear scale and one's cognition of teacher behavior as measured in a structured interview, on ten of the eleven selected variables of teacher behavior.

9. No significant relationship exists between observed behavior and one's cognition of teacher behavior, as measured on a linear scale.

10. A significant relationship exists between observed behavior and one's cognition of teacher behavior, as measured in a structured interview, on three of the eleven selected variables of teacher behavior.

11. A significant interrelation exists among the patterns of overt behavior on ten of the eleven selected variables of teacher behavior.

12. A significant interrelation exists among cognition of teacher behavior, as measured on a linear scale, on eight of the eleven selected variables of teacher behavior.

13. A significant interrelation exists among cognition of teacher behavior, as measured in a structured interview, on eight of the eleven selected variables of teacher behavior.

14. No significant differences exist between the male and female sub-groups tested in this study.

AN EXAMINATION OF THE INTERRELATION AMONG AUTHORITARIAN PERSONALITY, CRITICAL PRACTICALITY AND SELECTED VARIABLES OF TEACHER BEHAVIOR

By

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CHAPTER I

THE PROBLEM

The ingredients for fostering change in teaching are the attitudes and behavior of the classroom teachers involved. Since it is the classroom teacher who has the determinative responsibility for his teaching program, a knowledge of his beliefs, attitudes, and behavior are of vital importance in attempting to understand the process we know as teaching. In order for curriculum leaders to affect change in the teaching process they must understand a teacher's attitudes and personality and his beliefs regarding the kind of behavior that is expected of most people in the teaching profession.

It is known that some teachers are much more discriminating or critical in their selection of activities and materials for use in the classroom than are other teachers. What causes these differences? Why are some teachers autocratic but discriminating in the selection of their teaching programs while others are liberal and non-discriminating in the selection of their teaching programs?

No matter how democratic a classroom teacher is in the exercise of his responsibilities, he must, by virtue of the decisions which must be made regarding such things as

learning experiences and the methods of presentation, be to some degree directive in assuming the leadership role as the teacher within the classroom. It is through the employment of this directiveness in guiding the teaching program that the varied approaches to teaching are expressed by teachers. But is this all? Are attitudes and personality the only variables which govern one's teaching behavior? Perhaps not! Perhaps it is the teacher's cognition of what is expected which influences and governs his behavior. Better yet, perhaps it is a coaduation of all these variables which determine teacher behavior. Upon this enigma, this study found its genesis.

Background and Rationale

Teaching is conceived in many different ways, with resulting differences in what is emphasized and cherished as being significant in understanding and directing the teaching/learning process.

In addition, curriculum theorists would like to believe that teachers select content and method to achieve clearly perceived institutional goals. In practice, however, it is doubtful that teachers have such goals in mind when making more than a small fraction of their instructional decisions.[1]

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[1]M. P. Ammons, "Educational Objectives: The Relation Between the Process Used in Their Development and Their Quality." Unpublished doctoral dissertation, University of Chicago, 1961.

In setting up a study designed to compare process and product with respect to educational objectives, Ammons was hard pressed even to locate schools having such statements of overall objectives.

What does this suggest? Is there little relation between theory and practice in teaching? Or, are there determinant variables which affect the interpretation and understanding of theory in such a way that the resulting practice is greatly modified as a result of these affecting variables?

Tyler has identified four central teaching decisions which may be affected by such determinant variables: (1) the selection of educational objectives, (2) the selection of educational experiences to achieve these objectives, (3) the organization of these experiences, and (4) the evaluation of the attainment of educational objectives.[2] The products of these decisions, Tyler reports, constitute a skeleton for the school program. The instructional decisions of individual teachers place the meat on these bones.

In choosing various instructional activities, however, values also affect the selective process. R. S. Fox reports:

> values are the basic determiners of action, and purposes are statements of values in terms of the specifics of the problem being confronted. What the individual teacher does with the pupils in his classroom is the result of those values to which each is

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[2]R. W. Tyler, "Basic Principles of Curriculum and Instruction: Syllabus for Education 305 (Chicago: Syllabus Division, University of Chicago Press, 1950).

> committed. These values may be explicit, open to examination by others, or they may be implicit in the individual's action. . . .
>
> . . . not only do one's values influence the choice of basic principles or guidelines, but they are involved at the level of implementation. Decisions regarding teaching methods, the design of learning experiences, or instructional materials can be and are circumvented by the classroom teacher who finds his own values and objectives inconsistent with these resources. Since 'curriculum' ultimately consists of the actual learning experiences in which the pupils are engaged, the classroom teacher has the 'last word' and his values may prove to be the most influential of all.[3]

Further, Buswell[4] and Kasper[5] reported that the basic assumption underlying many studies on teaching is that teachers attitudes are significant for student learning. Direct evidence on this point, however, is surprisingly meager! Several investigators nonetheless, finding that the more accepted and better-adjusted pupils are, the better they achieve, have concluded that a good classroom climate will therefore promote achievement.

Studies of such factors in the school environment are not new. Historically, viewed from the vista of social interaction, interest in discovering the characteristics of the

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[3]R. S. Fox, "Curriculum Development with a Purpose," Theory Into Practice, 1962, 1:202-3.

[4]M. M. Buswell, "The Relationship Between the Social Structure of the Classroom and the Academic Success of the Pupils," Journal of Experimental Education, 1953, 22:37-52.

[5]A. A. Kasper, "A Study of the Relationships Among Classroom Climate, Emotional Adjustment, and Reading Achievement," Dissertation Abstracts, 1956, 16:1399-1400.

good teacher in establishing a sound classroom climate, as reflected in research on teaching, dates back to the early 1920's and continues to the present time.

Initially these studies of teacher characteristics dealt with easily obtained demographic variables--type of training, scholarship, and similar factors. More recently, however, more subtle variables such as attitudes and personality have appeared as the focus of most studies.

Anderson et al.[6] enucleate this neoteric problem where they report that the teacher's classroom personality and behavior influence the behavior of the children they teach. The teachers who used dominative techniques produced in their pupils aggressive and antagonistic behavior which were expressed toward both teachers and peers. On the other hand, teachers who demonstrated socially integrative behavior appeared to facilitate friendly, cooperative, and self-directive behavior in the children they taught.

Several similar studies, in addition, have reported that a teacher's attitudes and values affect his total personality and it is through these determiners of personality that all of his perceptions are developed.

Inasmuch as the teacher's attitudes and values do affect his total personality, there may be certain

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[6]H. H. Anderson, J. E. Brewer, and M. F. Reed, "Studies of Teachers' Classroom Personalities: Effects of Teachers' Dominative and Integrative Contacts on Children's Classroom Behavior," Applied Psychology Monographs, No. 8, 1946.

configurations of personality structure which lead them to be either dominative or integrative when working with students. Moreover, personality structure or "perceptual organization" is a determining factor in the effectiveness of the teacher. According to Combs and Soper,[7] it is possible to distinguish effective teachers from ineffective teachers on the basis of how they view themselves, their tasks, their students, and their students' purposes. The perceptual organization of effective teachers as classified by these researchers, follows closely the behavior Hagen outlined as non-authoritarian.

Hagen characterizes non-authoritarian behavior as: an openness to experience, a confidence in one's own evaluations, a satisfaction in facing and resolving confusion or ambiguity, a feeling that the world is orderly, and a belief that phenomena of life can be understood and explained.[8] Conversely, Hagen characterizes authoritarian behavior as demonstrating: a fear of using initiative, an uncertainty concerning the quality of one's own judgment, a tendency to avoid frustration and anxiety, an uneasiness in facing unresolved situations, and a tendency to see the world as arbitrary and capricious.[9]

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[7]A. W. Combs and D. W. Soper, "Perceptual Organization of Effective Teachers." Unpublished report of a study conducted during the 1961-62 academic year at the University of Florida, No. 8, p. 1.

[8]E. E. Hagen, On the Theory of Social Change (Homewood, Illinois: The Dorsey Press, Inc., 1962), pp. 88-89.

[9]Ibid., pp. 97-98.

In support of Hagen's definitions Myers and Torrance reported a study of the personality characteristics of teachers who were dominative. Among the characteristics which they identified were authoritarianism, defensiveness, insensitivity to pupil needs, pre-occupation with information-giving functions, intellectual inertness, disinterest in promoting initative in pupils, and pre-occupation with discipline.[10]

In sum, one might expect those teachers who exemplify dominant behavior to be less effective than those teachers who exemplify the contrapositive qualities which are more commonly associated with the "good" teacher. This assumption, however, needs to be studied.

Similarly, researchers suggest that it is one's personality and value structure which control the manner in which he defines his role as a teacher in the teaching process and the manner in which he behaves in selecting the methods and materials for use in his classroom curriculum. From this premise they suggest that "good" teachers or "poor" teachers can be identified.

More succinctly expressed, the vital importance of this study is stated by Withall and Lewis:

> The teacher is the primary ingredient in the learning process, and the characteristics of good teachers

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[10]R. E. Myers and P. E. Torrance, "Can Teachers Encourage Creative Thinking?" Educational Leadership, XIX (December, 1961), 156-59.

should be identified in order to provide more good teachers and fewer poor ones.[11]

It is the purpose of this study to make one attempt in providing a basis for the identification of such characteristics of good teachers.

Definition of Terms

For the purposes of this study the following terms are defined as stated below:

Authoritarian Personality: Behavior characterized by (1) directiveness in social relationships, (2) a belief in the need for submission to authority as opposed to individual freedom of thought and action, (3) repression rather than awareness of one's own unacceptable motives, (4) externalization or projection which leads one to suspect and blame others and to avoid introspection, (5) orientation toward others in terms of power rather than love, and (6) rigidity rather flexibility.[12]

Cognition: Cognition is the process of knowing or perceiving; cognizance or perception.[13]

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[11]J. Withall and W. Lewis, "Social Interaction in the Classroom," in N. L. Gage (ed.), Handbook of Research on Teaching, American Educational Research Association (Chicago: Rand McNally and Co., 1963), p. 685.

[12]T. W. Adorno, E. Frenkel-Brunswik, D. J. Levinson and R. N. Sanford, The Authoritarian Personality (New York: Harper and Co., 1950).

[13]J. H. Friend and D. B. Guralnik (eds.) Webster's New World Dictionary: Encyclopedic Edition (New York: World Publishing Co., 1954).

Critical Practicality: Behavior characterized by compulsiveness to avoid errors, criticalness, a regard for accuracy and standards, and a general practical concern for correctness.[14]

Selected Variables of Teacher Behavior: The eleven selected variables of teacher behavior chosen for this study have been adapted from David Ryans's study entitled Characteristics of Teachers.[15] The variables were conceived of as continua with the terminal points defined as follows:

a. dull - stimulating

b. analytical - nonanalytical

c. children's welfare - personal convenience

d. autocratic - democratic

e. harsh - kindly

f. stereotyped - original

g. inflexible - adaptable

h. professional - aprofessional

i. circumventors - conformers

j. secure - insecure

k. teacher satisfied - teacher dissatisfied

The variables were not used to measure "goodness" or "poorness" of teaching performance, rather, they serve as

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[14]R. B. Cattell, Personality and Motivation Structure and Measurement (Yonkers, New York: World Book Co., 1957).

[15]D. G. Ryans, Characteristics of Teachers (Washington, D. C.: American Council on Education, 1960).

continua along which teaching behavior can be indicated as perceived by the subjects of this study.

Student Teacher Education Program: This term is abbreviated S.T.E.P. for use in this study. The S.T.E.P. program is designed as a five-year elementary teacher education degree program utilizing Michigan public schools, community colleges, and Michigan State University facilities in a cooperative arrangement.

The community colleges are responsible for the first two years of undergraduate preparation. The University and the public schools then cooperate in the final three years of preparation toward the completion of Bachelor's degree requirements, a laboratory experience, and a two-year internship.

The program was researched, con-current with its development, through a Ford Foundation grant to Michigan State University. A full report is made in The Internship in the Preparation of Elementary School Teachers.[16]

Statement of the Problem

The major concern of this study is to investigate (1) the degree to which the characteristics of authoritarian

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[16]B. R. Corman and A. G. Olmsted, The Internship in the Preparation of Elementary School Teachers, College of Education, Michigan State University (East Lansing, Michigan: Bureau of Educational Research, 1964).

personality and critical practicality exist among male and female Student Teacher Education Program intern teachers teaching in grades three, four, and five during 1963-64; (2) the manner in which these characteristics of personality relate to selected aspects of teacher behavior among intern teachers; and (3) the intern teacher's cognition of the behavior of most teachers in regard to the selected variables of teacher behavior. In accord with this problem, the major hypothesis with which this study is concerned is stated as follows:

> There are no relationships among the characteristics of authoritarian personality; the characteristics of critical practicality; the observed behavior of male and female intern teachers, in regard to selected variables of teacher behavior, teaching in grades three, four, and five; and the cognition of the behavior of most teachers, in regard to selected variables of teacher behavior, as measured in male and female intern teachers teaching in grades three, four, and five.

To aid in testing the above hypothesis, nineteen questions have been developed relative to the major hypothesis; these are stated below:

1. To what extent do third, fourth, and fifth grade intern teachers evidence the characteristics of authoritarian personality?

2. To what extent to third, fourth, and fifth grade intern teachers evidence the characteristics of critical practicality?

3. To what extent is there a relationship between the characteristics of authoritarian personality and the characteristics of critical practicality among intern teachers teaching in grades three, four, and five?

4. What are the characteristics of the observed behavior of intern teachers, teaching in grades three four, and five, in regard to the selected variables of teacher behavior?

5. To what extent is there a relationship between the characteristics of authoritarian personality and the characteristics of observed behavior of intern teachers, teaching in grades three, four, and five, in regard to the selected variables of teacher behavior?

6. To what extent is there a relationship between the characteristics of critical practicality and the characteristics of observed behavior of intern teachers, teaching in grades three, four, and five, in regard to the selected variables of teacher behavior?

7. What is the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, in regard to the selected variables of teacher behavior?

8. To what extent is there a relationship between the characteristics of authoritarian personality and the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, in regard to the selected variables of teacher behavior?

9. To what extent is there a relationship between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, in regard to the selected variables of teacher behavior?

10. What is the intern teacher's cognition of the behavior of most teachers, as measured in a structured interview, in regard to the selected variables of teacher behavior?

11. To what extent is there a relationship between the characteristics of authoritarian personality and the intern teacher's cognition of the behavior of most teachers, as measured in a structured interview, in regard to the selected variables of teacher behavior?

12. To what extent is there a relationship between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers, as measured in a structured interview, in regard to the selected variables of teacher behavior?

13. To what extent is there a relationship between the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, in regard to the selected variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers as measured in a structured interview?

14. To what extent is there a relationship between the characteristics of the observed behavior of intern teachers in regard to the selected variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers as measured on a linear scale?

15. To what extent is there a relationship between the characteristics of the observed behavior of intern teachers, in regard to the selected variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers as measured in a structured interview?

16. To what extent are there relationships between the observed behavior of intern teachers among the selected variables of teacher behavior?

17. To what extent are there relationships between the intern teacher's cognition of most teachers behavior, as measured on a linear scale, among the selected variables of teacher behavior?

18. To what extent are there relationships between the intern teacher's cognition of most teachers behavior, as measured in a structured interview, among the selected variables of teacher behavior?

19. To what extent are there significant differences between the male and female intern teachers, teaching in grades three, four, and five, in regard to the above eighteen questions?

Limitations of the Study

A researcher can legitimately look to population sampling procedure, the size of the population, and the analysis process for sources of limitations in any study. Since a study is no better than the source of the data upon

which it is based, one should consider the population initially.

It should be clear that the population for this study is not a cross-sectional sample of teachers or intern teachers in general. Further, the total N consists of only twenty-six subjects. First, they are men and women who are exclusively elementary school intern teachers. Second, the samples were drawn from Michigan State University Student Teacher Education Program Centers, located only in Michigan. Since these centers are selected from communities and school systems regarded by the University as being somewhat above average, it could be argued that the intern teachers in these centers are therefore not typical of beginning teachers or of students in an elementary teacher education program. Third, the sample consisted only of third, fourth, and fifth grade second year intern teachers at one university. As such they can be regarded as typical of only off-campus intern teachers at a large mid-western university.

The sampling procedure also had limitations that need to be considered. First, information was gathered in relation to grades three, four, and five only. The behavioral variables are limited to those eleven specified and defined as the selected variables of teacher behavior. Second, through a refining process of screening interviews, academic failure, and a lack of competence for teaching, the remaining group of intern teachers have been to some degree homogenized.

Further, Student Teacher Education Program research tends to indicate that students entering this type of program are oriented somewhat differently in their motivation for teaching than are those students enrolled in a campus based program in elementary teacher education.[17] Third, this is a one-time sample since this study is not longitudinal in construct. That these interns examined will continue to behave in a similar manner three, five, ten, or fifteen years from now is certainly open to question. Fourth, the evaluations made by the intern teacher's supervisors regarding the observed behavior of their intern teachers is a subjective measure. Even though the interviewing program was standardized as much as possible through the use of terminal point definitions for the continua of the selected variables of teacher behavior and the interview questions recorded on tape, the decisions made by the supervisors are, in the final analysis, subjective and made by more than one person.

Summary

This chapter began with a focusing discussion of the problem followed by a statement of the background and rationale for this study. A definition of pertinent terms leads to a statement of the problem which is to investigate

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[17]S.T.E.P. Research: Re., interview with Dr. Ann Olmsted, Asst. Director, S.T.E.P. research project regarding the selection of the subjects for this study.

(1) the degree to which the characteristics of authoritarian personality and critical practicality exist among male and female Student Teacher Education Program intern teachers teaching in grades three, four, and five; (2) the manner in which these characteristics of personality relate to selected aspects of teacher behavior among intern teachers; and (3) the intern teacher's cognition of the behavior of most teachers in regard to the selected variables of teacher behavior. To aid in studying this problem, nineteen specific questions are listed. Concluding chapter one is a discussion of the limitation of this study.

Chapter two contains a review of research and literature in areas pertinent to this study. Discussed are authoritarian personality and the teaching process, critical practicality and the teaching process, and a statement from Ryans' study, Characteristics of Teachers, regarding the behavioral dimensions considered in this study.

Chapter three discusses the selection of test instruments, the design and methodology of the study, and the procedures for sampling and statistical analysis.

The analysis of the data and a discussion of these results are reported in Chapter four. Chapter five summarizes the results, conclusions and implications of this study.

CHAPTER II

REVIEW OF THE LITERATURE

The studies cited in this review are divided into three sections: (1) authoritarian personality and the teaching process, (2) critical practicality and the teaching process, and (3) a statement from Ryans' study, Characteristics of Teachers, regarding the behavioral dimensions considered in this study.

Authoritarian Personality and the Teaching Process

An investigation of the literature concerning the personality characteristics of authoritarianism leads one to a multitude of research. However, it straightway becomes evident that a problem exists in selecting those particular bits of research which are related directly to the topic being pursued.

"Authoritarianism has been found to be related to a wider range of conceptual or attitudinal processes than any other personality measure so far studied emperically."[1]

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[1]O. J. Horney, "Authoritarianism and Conceptual Functioning in Varied Conditions," Journal of Personality, XXXI (December, 1963), 462.

However,

> owing to both theoretical and methodological ambiguities . . . the picture concerning the effects of this personality attribute on cognitive processes is far from clear.[2]

In order to understand the meaning of authoritarianism in education--as it is conceived in this study--one must understand the purposes and ideals of democratic education to which authoritarianism is hostile. Hook has written a summary of these purposes and ideals which are stated as follows:

> Authoritarian philosophy is in opposition to:
>
> 1. the development of intellectual and emotional maturity;
>
> 2. the readiness to meet the challenge of new experiences on the basis of relevant knowledge;
>
> 3. the acquisition of techniques and values that are themselves tested in present experience;
>
> 4. the deepening of moral awareness and responsibility; and
>
> 5. the cultivation of intelligent loyalty to the underlying values of the democratic community as distinct from any particular political expression of these values.[3]

The above are large terms which have to be interpreted a little differently on different educational levels. Roughly speaking, however, it may be said that the pervasive

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[2]Ibid., p. 462.

[3]S. Hook, "The Danger of Authoritarian Attitudes in Teaching Today," School and Society, LXXIII (January 20, 1951), 34.

ideal of democratic education is to achieve a community of persons who, on the basis of reliable knowledge about themselves and the world in which they live, can develop freely in a free society.

To clarify his statements, Hook identifies as authoritarian any tendencies in education which:

> by blocking the roads of inquiry, prevent freedom of intelligent choice; which, by discouraging critical participation in the processes of learning, obstruct individual growth; which, by imposing dogmas of doctrine or program, blind students to relevant alternatives and encourage conformity rather than diversity; which, in short, fail to recognize that the supreme and ultimate authority, the final validating source of all other authorities in human experience is the self-critical authority of critical-method--or intelligence.[4]

A study by H. M. McGee places these essential issues of authoritarianism and the personality characteristics of teachers within the domain of psychological as well as psychometric theory. Seeking not only empirical prediction but logical understanding, he took the premise that:

> personality is a more or less enduring organization of forces within the individual which helps to determine response in various situations. The forces of personality are not responses, but readiness for response, and it is largely to them that consistency of behavior--whether verbal or physical--is attributable. Whether or not readiness will issue in overt expression depends not only upon the situation of the moment but upon what other readinesses stand in opposition to it.[5]

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[4]Ibid., p. 37.

[5]H. M. McGee, "Measurement of Authoritarianism and its Relation to Teachers' Classroom Behavior," Genetic Psychological Monographs, LII (1955), 138.

Within this framework, he argued further, that among the readinesses of special relevance in the classroom are the authoritarian or equalitarian attitudes of the teacher. He posed his major hypothesis for research as follows:

> . . . verbal responses of teachers to statements on an opinion-attitude scale for measuring authoritarianism and teachers' overt behavior toward pupils in the classroom are positively correlated.[6]

To attack this problem, McGee required methods for describing and measuring (1) underlying authoritarian trends in the personality and (2) manifestations of these trends in overt action. Available for the first requirement was the California "F" Scale which apparently demonstrated reliability and validity in estimating anti-democratic potential. For the second requirement, it was necessary to construct instruments to catch not only surface expressions of authoritarian behavior, but the more covertly expressed evidences of underlying tendencies as well.

The selection of behavior categories for observation was based on hypotheses as to how the specific behaviors in the classroom might be connected with these generalized authoritarian trends. For example:

> When it was observed that a teacher was severe; the teacher grabbed, shook, or otherwise 'manhandled' a child; the teacher was abusive; the teacher was 'personal' in praise and criticism of the work of each pupil; or the teacher ridiculed a pupil or depreciated a pupil's efforts, one interpretation was that this individual had a particularly strong concern with anti-weakness.[7]

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[6]Ibid., p. 93.

[7]Ibid., p. 109.

A full account of the construction and content of the Classroom Observation Record and Glossary is contained in the report. The final form of the Record has an interscorer reliability of .90 for 150 cases, and the investigator commented:

> the construction of an instrument designed to give qualitative estimates of authoritarian behavior in the classroom is one of the major contributions of the present study.[8]

Classroom observations and "F" Scale scores were obtained for 150 relatively young (not over thirty-two years of age) and relatively inexperienced men and women teachers (not more than three years of experience) in the public elementary and secondary schools in Oakland, California. Analysis of the data yielded the following results:

1. The over-all correlation of .58 between the independent variable (the "F" Scale score) and the dependent variable (the assigned behavior score) is highly significant (.005 level), thus confirming the major hypothesis of the study; i.e., a positive relationship between a measure of anti-democratic potential and a measure of teachers' overt authoritarian behavior in the classroom.

2. The over-all mean "F" Scale score per item of 2.89 is almost one point lower than the mean score of 3.81 for the normative sample of middle-class

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[8] Ibid., p. 121.

adults, supporting the hypothesis that teachers as a group are less authoritarian than other adults of similar status.

3. No significant differences in means or correlations were obtained for any sub-groups of teachers, except that men were found to be significantly lower than women on both the "F" Scale and Classroom Observation measures of authoritarianism.

In concluding his study, McGee interpreted his specific findings with the theory of The Authoritarian Personality[9] and offered a number of implications for countering authoritarianism in teachers, and finally suggested that:

> teachers' classroom behavior on an Authoritarian-Equalitarian dimension can be predicted with fair accuracy from scores on the California "F" Scale.[10]

A study by J. A. Del Popolo reports "Authoritarian Trends in Personality as Related to Attitudinal and Behavioral Traits of Student-Teachers."[11]

The purpose of Del Popolo's study was to investigate the relationship between an individual's personality structure and his opinions and attitudes toward pupil-teacher relationships and his observable behavioral traits in a classroom

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[9]Adorno, loc. cit.

[10]McGee, op. cit.

[11]J. A. Del Popolo, "Authoritarian Trends in Personality as related to Attitudinal and Behavior Traits of Student-Teachers," Journal of Educational Research, LIII (March, 1960), 252-57.

setting. The aspect of personality adopted for the investigation was that of the authoritarian personality structure.

In examining his data, Del Popolo drew the following conclusions:

> 1. the investigation lent support to the main hypothesis that a significant relationship exists between an individual's personality structure and his opinions and attitudes toward pupil-teacher relationships and his observable behavior traits in a classroom setting.
>
> 2. authoritarian student-teachers tend to get significantly lower scores than equalitarian student-teachers on an inventory of attitudes and opinions about pupil-teacher relationships. These differences were interpreted in terms of the dissimilar psychological orientation of the two groups.
>
> 3. authoritarian student-teachers tend to display behavioral traits during student-teaching which imply an inability to establish harmonious pupil-teacher relationships. On the other hand, equalitarian student-teachers tend to display behavioral traits which are felt to be conducive toward establishment of harmonious pupil-teacher relationships.[12]

A. F. Neel, in his study of authoritarianism and learning, reported that:

> in addition to the conflicts over dominance and submission, there are certain other characteristics hypothesized to be present in authoritarian behavior. Such a person is presumed to be unable to tolerate ambiguity, preferring to deal with the well known and well ordered material, and prone to imposing such order upon the world of his own accord if it does not exist in its own right. Once he has organized his perceptions or beliefs he is slow to change, if he can do so at all. He responds to people as to any other stimulus, fitting them into moral categories rather than appreciating individual variations. He cannot understand or empathize with others, and more likely than not cannot even like them.[13]

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[12] Ibid., pp. 252-53.

[13] A. F. Neel, "The Relationship of Authoritarian Personality to Learning: "F" Scale Scores Combined to Classroom Performance," Journal of Educational Psychology, L (October, 1959), 195.

> How might such a person affect the learning process?
>
> In the first place, such a person with his resentment and antagonism for others should find it difficult to learn or achieve certain types of knowledge about the understandings of human behavior. A person who cannot understand or tolerate others would find it hard to achieve the attitudes of humanitarian instructors.
>
> Aside from the difficulties of learning the material related to good teaching, the authoritarian person would probably find it uncomfortable and perhaps distasteful to be exposed to this type of content. Similar complications would not be expected with more factual learning.[14]

In sum, Neel offers the following considerations regarding learning and authoritarian personality.

> 1. the more authoritarian a person is, the more likely he is to have difficulty learning material which (a) deals with humanitarian philosophy, or (b) is ambiguous. Such difficulty should not be evidenced where learning of factual material is involved.
>
> 2. the more authoritarian a person is, the more dislike he should manifest for materials involving ambiguous or humanitarian materials.[15]

Similarly and somewhat related to Neel's work, Dressel and Mayhew stated the following regarding critical thinking and authoritarian personality:

> the low dogmatics are more successful than the high in critical thinking. The high dogmatics have the greater percentage of errors in those problems which require the study of several factors or criteria, for decision and the deferring of a conclusion, until each factor has been judiciously considered.
>
> Apparently the high dogmatic has difficulty in tolerating ambiguities and is thus impelled toward a 'closure' before full consideration is given to each piece of contributing evidence. This sometimes results in the

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[14] Ibid., p. 196.

[15] Ibid., p. 199.

> perceptual distortion of facts and in a conclusion which does not encompass all elements of the problem. This may be expected when a narrowing or distortion of parts of the complete problem can change it from one which threatens to one which offers gratification of security needs. Occasionally the significance of parts of the whole problem is ignored and a solution attained which fits harmoniously into the preferred value pattern.[16]

As is shown in the studies cited, the characteristics of authoritarian personality have been found to influence the behavior and manner in which one perceives and approaches the task of teaching. Authoritarian personality is, however, only one of the many variables which affect behavior. Another facet of personality to be considered is critical practicality.

Critical Practicality and the Teaching Process

Critical practicality as such, being a somewhat new and esoteric conception of a particular facet of personality, has not as yet been studied to any great extent beyond the work which has been done by Cattell and his associates. This is not to imply, however, that research relating to this particular concept has not been done. Rather, the studies which have been done related to this characteristic are found under correlative topics. The research cited below is a review of these studies in clinical and abnormal psychology which relate to the concept of critical practicality.

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[16]P. L. Dressel and L. B. Mayhew, General Education: Explorations in Evaluation (Washington, D. C.: American Council on Education, 1954), pp. 179-181.

In reviewing the research done in the disciplines of clinical and abnormal psychology, one finds that the results of such research are reported as definitions, etiology, pathogenesis, and treatment rather than as assumptions and implications which are more familiar in educational research. Thus, the research cited in this section is descriptive rather than a resolution of the characteristics of critical practicality.

In part, Cattell defines critical practicality as:

> 'compulsiveness,' 'criticalness,' and 'regard for accuracy and standards.'[17]

The research related to this mode of behavior contains several sources which indicate that a certain proportion of compulsive behavior is "normal" in everyone. The following statements are typical of those studies reporting this sentiment:

> Minor obsessions and compulsions are familiar in everyone's experience.[18]
>
> A number of so-called 'normal' obsessions are very common.[19]
>
> A sprinkling of obsessive mechanisms may be found in any person.[20]

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[17]Cattell, loc. cit.

[18]R. W. White, The Abnormal Personality (2nd ed., New York: The Ronald Press Co., 1959), p. 280.

[19]J. Rosen and I. Gregory, Abnormal Psychology, (Philadelphia: W. B. Saunders and Co., 1965), p. 245.

[20]S. Rado, "Obsessive Behavior: So-called Obsessive-Compulsive Neurosis," in S. Arieti (ed.), American Handbook of Psychiatry (New York: Basic Books, Inc., 1959), p. 339.

As is shown, there are two names for this symptom syndrome: "some prefer the designation 'obsession' and others prefer 'compulsion.'"[21]

In further support of these characteristics being commonplace and observable in all people--teachers being no exception--Noyes and Kolb report that:

> most obsessive-compulsive behavior consists merely of simple behavior . . . they superficially appear as meaningless formalities and are only recognized as neurotic cermonials when a necessity for renouncing them is accompanied by discomfort and anxiety.[22]

Further,

> the function of compulsive acts is to allay or bind anxiety.[23]

Rosen and Gregory enucleate that:

> the range of possible obsessions and compulsions is infinite; any idea or act can become the basis of a persistent and repetitive symptom.[24]

As is shown, the results of psychological research indicate that obsessive-compulsive behavior may appear in anyone at any time, and that it can occur in an infinite number of expressions.

As overt behavior the obsessive-compulsive personality manifests itself in varying forms. The descriptions which

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[21]White, op. cit., p. 279.

[22]A. P. Noyes and L. C. Kolb, Modern Clinical Psychiatry (Philadelphia: W. B. Saunders Co., 1964), p. 444.

[23]Ibid., p. 444.

[24]Rosen and Gregory, op. cit., p. 245.

follow summarize the more common expressions of such behavior.

> The personality of the majority of obsessive-compulsives is very striking. They tend to be obstinate, stingy, neat, methodical, rigid and perfectionistic. Rigidity in handling details is evidenced by isolating and compartmentalizing them. Obsessives tend to be relatively cool intellectualizers; their speech is typically marked by many qualifications. Their detail-mindedness and insistence on qualifying everything tend to irritate other people intensely. They are usually overcontrolled and unable to react spontaneously to other people, they try to live by rules and regulations; they are unconsciously afraid of flexible interactions in which decisions must be made from moment to moment.[25]

More particularly related to the characteristics of critical practicality, R. W. White writes that:

> certain character traits appear to be particularly common among obsessional patients. These patients seem to favor a certain pattern of protections. Generally they show a great interest in orderliness which they carry to extremes . . . they are also conscientious and idealistic.[26]

Another highly detailed description of the behavior of the obsessive-compulsive personality is given by Rado.

> A rough sketch of the obsessive patient would depict him as highly opinionated and proud of his superior intelligence, avowed rationality, keen sense of reality, and 'unswerving integrity.' He may indeed be an honest man, but he may also turn out to be a sanctimonious hypocrite. He is the ultimate perfectionist. While very sensitive to his own hurt, he may, at the same time, be destructively critical, spiteful, vindictive, and given to bearing grudges in trivial matters. Or, on the contrary, he may be overcautious, bent on avoiding any possibility of conflict. His 'common sense' militates against what he views as fancies of the imagination: he is a 'man of facts,' not of fancies. He smiles condescendingly at people who are fascinated

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[25]Rosen and Gregory, op. cit., p. 245.

[26]White, op. cit., p. 284.

> by mysticism, including 'the unconscious' and dreams, but let him undergo some psychoanalytic treatment of the classical type, and he will switch to attributing oracular significance to slips of the tongue or the pen. As a 'man of reason' he cannot admit even to himself that he is superstitious. His interest in fine arts is slight or pretended; his true admiration is reserved for mathematics, the exact sciences, technology, the new world of electronics and computing machines. In contrast to the expressional (so-called hysterical) type, he rarely has artistic gifts and conspicuously lacks genuine charm and grace. His amatory interests are laden with ulterior motivations and pretense. His envy of a successful rival--in work, for example--may carry him to dangerous lengths: if the opportunity arises, he may subtly cut the man's throat--a token of his admiration and respect. This sort of thing is usually termed 'ambivalence.' Finally, the obsessive patient is almost never completely free from tension and irritability, though in general the degree of these characteristics fluctuates from slight to severe.[27]

The obsessive-compulsive personality is acknowledged to be one of the many forms of atypical behavior commonly found in most people. However, the important factor in personal adjustment depends upon whether or not the behavior evinced hinders its possessor from functioning effectively within a normal society. V. C. Arnspiger writes:

> The neurotic person may be sufficiently adjusted to be accepted by his society, but he is often terribly fearful that things will not turn out well for him.[28]

In addition, "the major characteristic of the abnormal personality is that he behaves unrealistically."[29] (Unrealistic behavior is defined by Arnspiger as "that behavior not directed toward the achievement of realistic goals.")[30]

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[27]Rado, op. cit., p. 326.

[28]V. C. Arnspiger, Personality in Social Process (Chicago: Follett Publishing Co., 1961), p. 159.

[29]Ibid.

[30]Ibid.

With reference to teachers, L. Peck found that:

> a number of studies of teachers attending summer schools showed them to be a little less well adjusted than other woman students. . . . the examiner in these studies, however, believed the percentage of psychotics among teachers to be no higher than in the general population.[31]

The use of the term "less well adjusted" is rather vague but does suggest that teachers as a group may possess certain characteristics that are not common to the general population. One thing is certain, nonetheless, "maladjusted teachers clearly produce maladjustment in children."[32] This being the case, the personality characteristics of teachers need to be more fully studied in order to develop techniques which will identify such maladjusted and damaging teachers.

> Little effort has been made to appraise objectively the retarding effect of unrealistic behavior upon the realization of human potential.[33]

While none of us is completely free of mental conflict, the normal person is not unduly hampered by choosing between value goals that conflict with each other. He makes his choice and lives thereafter with a minimum of regret. Furthermore, the normal person faces up to the problems of his frustrations realistically and with a minimum of

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[31]L. Peck, "A Study of the Adjustment Difficulties of a Group of Women Teachers," Journal of Educational Psychology, Sept. 1936, pp. 401-416, in W. H. Burton and L. J. Brueckner, Supervision: A Social Process (New York: Appleton-Century-Crofts, Inc., 1955), p. 530.

[32]Burton and Brueckner, ibid.

[33]Arnspiger, op. cit., p. 160.

substitution, self-deception, and retreat. For the normal person, there is little need to demonstrate the atypical behavior designated as critical practicality.

Assumptions and Implications Regarding Teacher Behavior

The behavioral dimensions of this study provide a vehicle whereby the characteristics of authoritarian personality and critical practicality can be examined. In using the behavior of teachers, both cognitive and observed, as an independent variable, it would seem expedient to review the assumptions and implications made by D. G. Ryans in his study of the behavioral characteristics of teachers.[34]

Assumption I: Teacher behavior is a function of situational factors and characteristics of the individual teacher.

Implication A_1: Teacher behavior is characterized by some degree of consistency.

Implication B_1: Teacher behavior is characterized by a limited number of responses.

Implication C_1: Teacher behavior is always probable rather than certain.

Implication D_1: Teacher behavior is a function of personal characteristics of the individual teacher.

Implication E_1: Teacher behavior is a function of general features of the situation in which it takes place.

Implication F_1: Teacher behavior is a function of the specific situation in which it takes place.

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[34]Ryans, op. cit., pp. 16-23.

Assumption II: Teacher behavior is observable.

Implication A_2: Teacher behaviors are distinguishable.

Implication B_2: Teacher behaviors are classifiable qualitatively and quantitatively.

Implication C_2: Teacher behaviors are revealed through overt behavior and also by symptoms or correlates of behavior.

Summary

The areas which have been examined in reviewing the literature relative to this study were: (1) authoritarian personality, (2) critical practicality, and (3) assumptions and implications in studying teacher behavior.

Probably the most important factor in the teaching-learning process is the classroom climate established by the teacher. Within this atmosphere the interaction of teacher and pupil is consummated in the act of learning.

The characteristics of the authoritarian personality were discussed in regard to the manner in which it affects the teacher and the teaching process. Critical practicality was discussed and described in light of research which has been in correlative disciplines.

In conclusion, the final portion of chapter two is a statement of the assumptions and implications employed in guiding the examination of the selected variables of teacher behavior considered in this study.

CHAPTER III

METHODS, PROCEDURES AND SOURCES OF DATA

Chapter three discusses the test instruments used in this study, the selection and identification of the sample population, the methods of data procurement, and the statistical procedures to be used in the analysis of the data.

Test Instruments

Four test instruments were selected for use in obtaining the data for this study. They are as follows:

1. California "F" Scale
2. Hidden Patterns Test
3. Linear Cognition Scale
4. Intern Teacher Behavior Scale

In the following discussion of these test instruments the source of each is identified, the instrument is briefly described and the methods and procedures for administering and scoring are enucleated. A sample of each test form can be found in Appendix A.

California "F" Scale
(Authoritarian Personality Potential)

Description and Rationale:

The California "F" Scale (hereafter referred to as the "F" Scale) is part of a four-facted test battery developed by Adorno, Frenkel-Brunswik, Levinson, and Sanford in their study of the authoritarian personality. The scale items consist of twenty-nine (29) statements to which the subject is asked to respond indicating the degree of his agreement or disagreement as measured on a seven point scale.

Adorno et al., report that this inventory has a reliability coefficient of .90 and may be used to place individuals along a dimension--with a small margin of error. Further, the degree of reliability attained here is within the range which characterizes acceptable tests.

While no distribution curves have actually been made, scatter diagrams indicate that the curves would be fairly normal in form, symmetrical but platykurtic.

H. M. McGee, in his study "Measurement of Authoritarianism and its Relation to Teachers' Classroom Behavior" (reviewed in Chapter II), states that "Teachers' classroom behavior on an Authoritarian-Equalitarian dimension can be predicted with fair accuracy from scores on the California "F" Scale."[1]

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[1]McGee, loc. cit.

An exhaustive description of the development and validation of this test instrument can be found in the following reference: Adorno, Frenkle-Brunswick, Levinson, and Sanford, The Authoritarian Personality, Chapter VII, "The Measurement of Implicit Anti-Democratic Trends," pages 222-279.

Time Allowance:

This inventory is not timed; subjects may have as much time as is necessary to complete this activity.

Scoring:

The procedure used in this scale is to allow seven choices of response for each item: i.e., slight, moderate, or strong agreement; slight, moderate, or strong disagreement and a middle or neutral category. Each subject indicates the degree of his agreement by marking +1, +2, or + 3, disagreement is marked -1, -2, or -3. The neutral response was indicated on a "?" symbol.

The responses were converted to raw scores by the scoring system which is shown below.

Table 3.1. Scoring values for "F" Scale.

Response		Value	Response		Value
-3	=	1	+1	=	5
-2	=	2	+2	=	6
-1	=	3	+3	=	7
?	=	4			

A subject's raw score is the sum of the value of his responses on the single items divided by twenty-nine. The mean score of the items is an indication of an individual's authoritarian potential.

In view of sex differences, report the authors, the responses of men and women should be separated for statistical analysis.

Hidden Shapes Test: G-37
(Perceptual Analysis: Critical Practicality)

Description and Rationale:

The Hidden Shapes Test: G-37, is a part of R. B. Cattell's "Objective-Analytic Test Battery"[2] and consists of eighteen simple geometric figures each of which is followed by four more complex figures. The subject's task is to identify and indicate the complex figures in which the simple forms appear.

A description of the research and background of this test is given in the IPAT NEWS, Vol. 9, entitled "The Objective-Analytic Personality Test Batteries." The description is as follows:

> In 1955 IPAT (Institute for Personality and Ability Testing) had the privilege of presenting to the psychological world the first batteries of objective tests for measuring primary personality factors. The tests are 'objective' in the sense that (1) they do not

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[2]Cattell, Objective-Analytic Test Battery (Champaign, Illinois: Institute for Personality and Ability Testing, 1956).

depend on the subject's describing his behavior, as in questionnaires, but measure his actual behavior in miniature situations, a large proportion of which, however, can be phrased in convenient paper-and-pencil form; (2) they are far less vulnerable to willful distortion by subjects than are questionnaires or ratings; (3) they are scored by key or other standard, convenient system, so that all observers will agree on the score to be assigned a given subject's performance. The battery is known as the OBJECTIVE-ANALYTIC PERSONALITY TEST BATTERY because it is objective in the above senses and because it analyzes the personality into eighteen distinct 'source traits' (factors), accounting for the greatest part of measurable individual differences in the personality field. The advantage of having such complete coverage of personality is obvious when one wishes initially to determine the personality correlates needed for predicting specific clinical or occupational criteria never before studied thoroughly. (In our view, this actually is the case in a large proportion of criterion prediction problems faced by the practitioner or researcher.) In general, professional standards require that if we are to give valuable advice on so complex a subject as personality, sufficient testing time must be invested to cover the personality, using meaningful, unfakable, reliable, and valid measurements.

An immense amount of research has been carried out on literally hundreds of test devices, from which we picked only the "cream" for the O-A battery. This research discovered and confirmed roughly eighteen distinct personality factors or source traits. As the end result of what has been called "a monumental piece of research organization and creativity," the O-A batteries have been tried on well over two thousand adults and children, normal and abnormal. In such researches, both prior to 1955 and since, it has been shown that the O-A battery is capable of predicting important clinical and occupational performances. Some of the factors (source traits) are well known dimensions such as anxiety, inhibition, and extraversion-introversion, while others are entirely unsuspected temperamental and dynamic entities which clinical and personality theory and practice have still to incorporate. For this reason, and because final standardization and improvement of certain tests have still to be made, the battery is published as being still at the research stage.

> In some of the newer factors, the factor measurement saturations are not as high as in such older factors as intelligence, anxiety, etc. However, the batteries should be welcomed by applied as well as research psychologists because they are an advance on the subjectivity of questionnaires, and have greater validity and measuring power than isolated non-factorial objective tests, as in certain projective "gadgets." That the tests are fully practicable for use with neurotics and hospitalized psychotics has been attested to by their successful administrations in institutions by a number of practitioners and researchers.
>
> The researches of Coan and Peterson have recently extended the O-A batteries to 4-8 year old children. O-A batteries for these age levels are in process of construction on the basis of these research findings. Meanwhile, in fact since 1955, the O-A batteries have been available (a) for adults and (b) for children of the 10-16 age range. They cover eighteen factors, and can be given as single-factor measurements, or as batteries measuring either the twelve most important factors or all eighteen factors.
>
> The meaning of these factors and their relations to general psychological theory have been set out in many research articles; in Cattell's Personality: A Systematic Theoretical Study, McGraw-Hill, 1950; and in Cattell's Personality and Motivation Structure and Measurement, World Book Co., 1957. The substantial gain through carrying out research and routine personality measurement in terms of these batteries rather than by single tests is that one integrates with a growing body of psychological knowledge and criterion predictive power. The O-A batteries will be constantly improved as test invention provides tests of higher construct (factor) validity, but research findings, regression coefficients, etc., in terms of factors will be continuously transferable to the improved batteries which IPAT plans to bring out from time to time.

Cattell reports that the Hidden Shapes Test: G-37, has a positive loading on a factor of "critical exactness" about which he states:

> . . . a high score here is associated with conscientious exactness and reliability in a wide range of performances. The individual at the positive pole is penetrating,

> critical of himself and others--especially others--and not given to relaxing easily. . . .[3]

In a later publication Cattell renames this factor "Critical Practicality" and states:

> the expression 'critical practicality' perhaps best expresses for the present the compulsiveness, criticalness, regard for accuracy and standards, and the general practical concern shown.[4]

At a somewhat more intuitive level, the test appears to call for the ability to disregard superfluous detail in perceptual situations. The fact that the test appeared to tap the ability "to perceive essentials quickly" argued for its inclusion in the test battery. A correlational analysis of the Hidden Shapes Test with other tests on creativity showed that this test was empirically related to the others in tested creativity.

Time Allowance:

Subjects are allowed 3½ minutes to complete the test items.

Scoring:

The test is scored according to the directions in Cattell's manual. The basic procedure is to score the responses "right-minus-wrong."

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[3]Cattell, Handbook for the Objective-Analytic Personality Test Batteries (Champaign, Illinois: Institute for Personality and Ability Testing, 1955), p. 53.

[4]Cattell, Personality and Motivation Structure and Measurement (Yonkers, New York: World Book Co., 1957), p. 244.

Linear Cognition Scales
(Cognition of Teacher Behavior)

Description and Rationale:

The Linear Cognition Scales were developed for the S.T.E.P. research project by the S.T.E.P. research staff. Their purpose is to gather data concerning the intern teacher's cognition of the manner in which he believes most teachers in general behave.

The scales are composed of the eleven (11) selected variables of teacher behavior which are examined in this study. The variables were adapted and modified for the cognition scales from D. G. Ryans' study, The Characteristics of Teachers.[5] Although these particular items found their genesis in Ryans' work, the behavioral definitions indicating the terminal points of the continua, the administration of the items, and the interpretation of the data are in no way associated with Ryans' work. Dr. B. Corman, director of the S.T.E.P. research project, reported:

> . . . both our definitions and our use of these scale devices differ from his [Ryans].[6]

The administration of the Linear Cognition Scales is done through an interview with each of the subjects examined. The subject is asked to indicate his cognition of the behavior of most teachers on each of the eleven (11) scales.

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[5]Ryans, loc. cit.

[6]Quoted from a letter received from Dr. Bernard Corman regarding the source of the cognition scales.

Before being allowed to indicate his response, the terminal point definitions are read to the subject in order to clarify each variable. He is then asked to explain his response verbally as he marks it graphically on the scale continuum. The recorded statements are typed in script form and evaluated along with the scale continua.

Time Allowance:

The scales were not timed; subjects are asked to indicate their cognition of most teachers' behavior as they are interviewed concerning each variable.

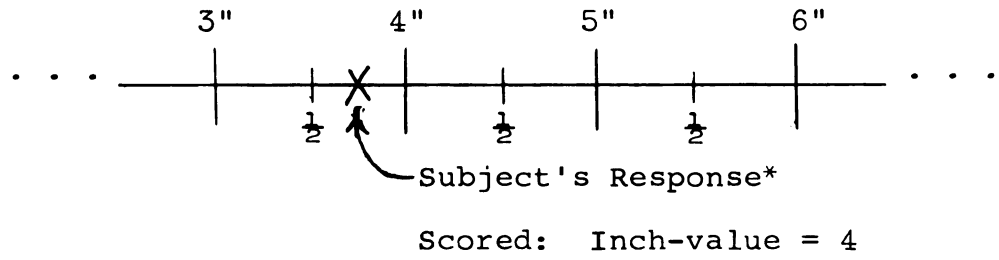
Scoring:

The evaluation and scoring of the data collected on the Linear Cognition Scales is done using two techniques in order to verify the consistency and reliability of the responses indicated by each subject.

The first technique used in scoring the scales is to measure the placement of the subjects response from the terminal point on the left side of each scale continuum with a ruler. The response is scored as being equal to the nearest whole inch; thus allowing a variability of one-half of one inch on either side of the "inch-value." An example of this scoring technique is shown on the table on the following page.

As is shown in the example, the subject placed his mark between the three and four inch marks. Since the mark is

Table 3.2. Scoring technique one for linear cognition scales.



*Any response marked exactly on the half-inch mark was considered equal to the next highest "inch-value."

nearer the four inch mark than the three inch mark it is considered as having a value of four (4). Any mark falling between $3\frac{1}{2}$ inches and $4\frac{7}{16}$ inches is considered as being equivalent to a value of four (4).

The second technique used in evaluating and scoring the cognition scales is to examine the transcripts of each of the subject's verbal responses regarding the behavioral variables.

In order to establish a criterion for evaluating the responses, three representative statements in each of the seven dimensions equivalent to the seven "inch-values" were selected for each variable from the transcripts. The statements were selected at random until three had been found for each of seven dimensions listed below:

1. extremely like the terminal point definition on the left of the scale.
2. moderately like the terminal point definition on the left of the scale.

3. somewhat like the terminal point definition on the left of the scale.

4. neither like the terminal point definitions on the left or the right of the scale.

5. somewhat like the terminal point definition on the right of the scale.

6. moderately like the terminal point definition on the right of the scale.

7. extremely like the terminal point definition on the right of the scale.

The "statement-value" of each statement evaluated and scored is equivalent to the number which precedes each dimension above.

Upon completing the scoring of each of the subject's statements, in accord with the selected criteria, the "statement-values" are then summed and a mean of the statements is calculated.

Again, as in technique one, the values are rounded to the nearest whole number with values of exactly .50 considered as being equivalent to the next highest value. An example of this scoring technique is shown on the table below:

Table 3.3. Scoring technique two for linear cognition scales.

Statement 1*	= 4	
Statement 2	= 2	Sum of statements = 17
Statement 3	= 5	Mean = 3.40
Statement 4	= 3	"Statement-value" = 3
Statement 5	= 3	

*A statement is defined as one complete thought regarding the variable in question.

From the utilization of the above scoring techniques, data listed as "cognition of behavior as measured on a linear scale" and "cognition of behavior as measured in a structured interview" were obtained.

Intern Teacher Behavior Scale
(Observed Teaching Behavior)

Description and Rationale:

The Intern Teacher Behavior Scale is an adaptation of the Linear Cognition Scales. This Scale is designed to provide a means by which the Intern Teacher's supervisor can indicate his cognition of the Intern's teaching behavior, as he has observed it through their association, in regard to the eleven selected variables of behavior considered in this study. The patterns of behavior are explained as being only definitions of contrapositive teaching behavior and not measures of acceptability or unacceptability.

The administration of this Scale is done through an interview with each of the intern supervisors of those intern teachers selected for examination.

Time Allowance:

This inventory is not timed, however, the interviewer should plan to schedule approximately thirty (30) minutes for each interview.

Scoring:

The responses of the supervisors are evaluated as indicated. The scale values range from one through ten with an eleventh column provided for such cases where the supervisor cannot respond to a particular item. The responses marked in the "?" column are not counted in evaluating the data.

EXAMPLES OF EACH TEST INSTRUMENT
ARE FOUND IN APPENDIX A

Control of the Variables in the Data Collection

It is acknowledged that four variables cannot be controlled in the collection of data for this study:

1. The setting in which the intern teacher is teaching cannot be controlled.
2. The degree of actual or imagined freedom which the intern teacher has to experiment and change his program or teaching behavior cannot be controlled.
3. The closeness of the relationship between the intern teacher and his supervisor cannot be controlled.
4. The methods, techniques and procedures of the S.T.E.P. Interviewers in securing data on the Linear Cognition Scales cannot be controlled.

Rationale for the Selection of the Sample Population

The population for this study was drawn from fifth year S.T.E.P. intern teachers who are in their second year of

internship. The sample was limited to those interns teaching in grades three, four, and five.

The selection of second year S.T.E.P. intern teachers was made for the following reasons. First, because the S.T.E.P. research project had been in progress for over three years, it was felt that the data collected via this source would have a higher degree of validity than that which might be collected in a single interview in which a sound rapport between the interviewer and the interviewee had not been established. Further, this particular sample, having served as an experimental group, was felt to be much more open and honest in their responses than students not participating in such a research program.

Second, in order to obtain an estimation of intern teacher behavior, the experiences and observations of the intern supervisor of each intern teacher were examined.

Third, grades three, four, and five were selected as the limits in this sample because they represent a rather homogeneous group between the primary grades (K, 1, 2) and the upper elementary grades (6, 7, 8). The differences between the personality and behavioral characteristics of primary grade teachers and upper elementary grade teachers would seem to logically eliminate them from being considered as a homogeneous group.

Finally, the second year interns were selected because with few exceptions the teaching behavior of these intern

teachers had been observed by the same supervisor for a period of two academic years. Of those few--four--who had changed supervisors, all were re-assigned to experienced supervisors who were thoroughly familiar with the aims and objectives of the S.T.E.P. program and had served as a supervisor on the S.T.E.P. staff for at least one year. Through these associations between the intern teachers and their supervisors it was concluded that this group provided the greatest depth and abundance of material available for use in this study.

Description of the Sample Population

All subjects selected in the sample population of this study had completed a minimum of eleven academic quarters toward the completion of their Bachelor's Degree in Elementary Education from Michigan State University. At the time the sample was taken--June 1964--the selected Intern Teachers were in the final two weeks of their second year of internship. The specific data regarding sex, age and marital status is shown in Table 3.4. Race and/or national origin were not considered as a part of this study because of the small size of the sample.

Table 3.5 describes the source, grade level and number of intern teachers selected for this study (see page 49).

Table 3.4. Age and marital status of second year intern teachers.

Grade Level	Married	Single	Mean Age
	Male Group		
3	0	0	0
4	2	2	25.60
5	4	1	27.20
total	6	3	26.40
	Female Group		
3	3	4	25.86
4	2	3	30.80
5	1	4	24.80
total	6	11	27.15
	Total Group		
3	3	4	25.86
4	4	5	28.20
5	5	5	26.00
total	12	14	26.69

Methods of Data Procurement

In order to fulfill the requirements demanded by the hypotheses of this study, it was necessary to (1) interview the supervisor of each intern teacher, and (2) administer the "F" Scale and the Hidden Patterns Test batteries to each of the interns in the sample population.

Table 3.5. Source of the sample population.

S.T.E.P. Center	Grade Level Three	Four	Five	Total
Battle Creek	2	0	2	4
Bay City: Saginaw	4	2	1	7
Grand Rapids	1	2	4	7
Port Huron	0	2	2	4
South Macomb	0	3	1	4
Total population*	7	9	10	26

*Intern Teachers teaching a split grade were considered as though they taught the lower half of their split grade combination.

Arrangements were made, with the help and cooperation of the Cordinators in each of the S.T.E.P. Centers, to schedule interviews of thirty (30) minutes in length with each of the intern supervisors. The administration of the "F" Scale and the Hidden Patterns Test was given to each sub-group of interns at the same time in each S.T.E.P. Center.

The data secured from the Linear Cognition Scale was collected by experienced interviewers who were members of the S.T.E.P. research staff. The original Linear Cognition Scales and the original transcripts of the recorded interviews

were secured from the S.T.E.P. research center for evaluation in accord with the scoring techniques described for this instrument.

Methods of Statistical Analysis

The basic variables to be analyzed were divided into four main groups: (1) those data obtained from the administration of the "F" Scale, (2) those data obtained from the administration of the Hidden Patterns Test, (3) those data obtained from the administration of the Linear Cognition Scales, and (4) those data obtained from the administration of the Intern Teacher Behavior Scale. In all, there are a total of thirty-five (35) separate variables with which this study is concerned.[7]

To facilitate the analysis of the data, sex was used as an independent variable to further clarify differences which might exist in the sample population. The groups analyzed are as follows:

1. female interns teaching in grades three, four and five.
2. male interns teaching in grades four and five.
3. male and female interns teaching in grades three, four, and five.

For the purposes of the study differences in age, marital status, place of residence, community size, and

---

[7]The identification code and raw data for each separate variable are listed in Appendix B.

school district size were not considered in examining and analyzing the data.

The initial procedure in the analysis of the data was to compute the mean and standard deviation for each of the thirty-five variables in each of the three groups examined. This step was followed by the computation of a coefficient of correlation for each pair of variables studied.

The second procedure in the analysis of the data was to examine the differences in the coefficients of correlation between the male and female groups in order to determine whether or not significant differences were present between these groups.

The final phase in the analysis of the data was to examine the coefficients of correlation in order to identify those coefficients which were significant within the degrees of freedom for each group studied.

Definition and Description of Statistical Measures

The index to the coefficient of correlation used in this study is the Pearson product-moment correlation coefficient. It is also variously referred to as a Pearson *r*, a simple *r*, or an ordinary *r*.

This coefficient measures the degree to which two variables are associated and is symbolized by *r*. In terms of absolute size, *r* may vary from +1.00 through zero, to

-1.00. A correlation coefficient of +1.00 indicates a perfect positive relationship between two variables; a zero coefficient indicates no relationship; and -1.00 indicates a perfect negative relationship. It is very seldom, if at all, that perfect relationships are found in the behavioral sciences, in part because of the limitations of the measuring instruments and also because of the difficulties of controlling all possible factors which may influence the two variables being studied.

The calculation of the coefficient of correlation from original measures, without subtracting the mean of the Y distribution from each Y score and the mean of the X distribution from each X score, is usually the most convenient method of finding r. In this instance, it is assumed that the means in each case are equal to zero.

To calculate r, one must square each of the scores, sum, and apply a correction term for origin to obtain the sum of squares. It is known that:

$$\Sigma x^2 = \Sigma X^2 - \frac{(\Sigma X)^2}{N}$$
$$\Sigma y^2 = \Sigma Y^2 - \frac{(\Sigma Y)^2}{N} \qquad (3.1)$$

All one needs to do to get the sum of products (Σxy) is to apply a similar correction term for the point of origin. Thus:

$$\Sigma xy = \Sigma XY - \frac{(\Sigma X)\Sigma XY)}{N} \qquad (3.2)$$

One now has the identities for Σx^2, Σy^2, and Σxy and may substitute in the following formula to obtain:

$$\underline{r}_{xy} = \frac{\Sigma XY - \frac{(\Sigma X)\ (\Sigma Y)}{N}}{\sqrt{\left[\Sigma X^2 - \frac{(\Sigma X)^2}{N}\right]\ \left[\Sigma Y^2 - \frac{(\Sigma Y)^2}{N}\right]}} \qquad (3.3)$$

An alternative formula--somewhat easier to use--may be obtained by multiplying both the numerator and the denominator of the above formula by N. Thus:

$$\underline{r}_{xy} = \frac{\Sigma\ N\ XY - (\Sigma X)\ (\Sigma Y)}{\sqrt{[N\Sigma X^2 - (\Sigma X)^2]\ [N\Sigma Y^2 - (\Sigma Y)^2]}} \qquad (3.4)$$

Through the use of formula (3.4) the significance of the relationship between the variables studied was examined.

The second statistical measure used in the analysis of the data is Fisher's Logarithmic Transformation of $\underline{r}$. Fisher introduced this statistic which is a function of $\underline{r}$. He demonstrated that if each of the $\underline{r}$-values were transformed into this new statistic, the resulting values would be approximately normally distributed, with a mean corresponding to the transformed value $\underline{p}$ and variance of $1/(N - 3)$. He demonstrated that this would be true regardless of the value of $\underline{p}$ even for samples that are quite small. (Rho, $\underline{p}$, is used to distinguish between $\underline{r}$ in its original form and $\underline{r}$ that has been transformed through Fisher's formula.)

Since this new statistic is a function of, or a transformation of, a value on the *r*-scale, it is possible, by expressing any *p*- or *r*-value in terms of this new statistic, to use its sampling distribution indirectly to test hypotheses about *p*.

Fisher designated this statistic *z*, but it shall be called z_r, to prevent confusion with previous meanings associated with the symbol *z*.

The statistic introduced by Fisher is defined as follows:

$$z_r = \tfrac{1}{2} \log_e \frac{1 + r}{1 - r} \qquad (3.5)$$

The z_r-value corresponding to any *r*-value may be obtained by computing $(1 + r)/(1 - r)$ and by using a table or natural logarithms to find one-half the logarithm of the result of this computation. It is unnecessary, however, to refer to a table of natural logarithms in order to effect this transformation. Values of z_r corresponding to values of *r* from .000 to .995 have been made available on tables for easy reference.

The foregoing statistic may be summarized in the following theorm:

> For random samples of N from a normal bivariate population for which the correlation between the variables is *p*, the sampling distribution of
>
> $$z_r = \tfrac{1}{2} \log_e \frac{1 + r}{1 - r} \qquad (3.6)$$
>
> is a normal distribution with mean

$$z_p = \frac{1}{2} \log_e \frac{1 + p}{1 - p} \qquad (3.7)$$

and with variance[8]

$$\sigma^2_{z_r} = \frac{1}{N - 3} \qquad (3.8)$$

The formula used in testing for significant differences the male and female groups is shown as follows:

$$z = \frac{z_{r_1} - z_{r_2}}{\sqrt{\frac{1}{n_1 - 3} + \frac{1}{n_2 - 3}}} \qquad (3.9)$$

Summary

Chapter three discussed the test instruments used, the selection and identification of the sample population, the methods of data procurement, and the statistical measures selected for the analysis of the data.

The test instruments described were the California "F" Scale; the Hidden Patterns Test, G-37; the Linear Cognition Scales; and the Intern Teacher Behavior Scale.

The population upon which this study is based was defined and identified as the male and female third, fourth, and fifth grade Intern Teachers enrolled in the Student Teacher Education Program at Michigan State University.

The methods of data procurement were described and the statistical measures were explained.

In Chapter Four the data gathered will be analyzed and discussed.

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[8]P. Blommers and E. Lindquist, Elementary Statistical Methods (Boston: Houghton Mifflin Co., 1960), p. 463.

CHAPTER IV

ANALYSIS OF THE DATA

The purpose of this study was to examine the relationships among authoritarian personality, critical practicality, and eleven selected variables of teacher behavior. Data from the administration of the California "F" Scale, the Hidden Shapes Test the Linear Cognition Scales, and the Intern Teacher Behavior Scale were obtained from twenty-six undergraduate students in elementary education enrolled in the Student Teacher Education Program at Michigan State University. The findings presented in this chapter are based on a correlational analysis of the variables measured in the investigation of this problem.

The results educed from this analysis are reported in the following progression. Part One presents 1) Table 4.1, identifying each of the thirty-five variables studied, 2) a restatement of the major hypothesis, and 3) the means and standard deviations for each of the variables studied. Part Two reports the coefficients of correlation among the variables tested in each of the nineteen questions listed under the problem. The questions are presented, analyzed and discussed independently of each other in this analysis. The appropriate tables accompany each of the discussions.

Part Three reports a summary of the significant data educed in this investigation, and Part Four summarizes Chapter Four.

To aid in the presentation and interpretation of the findings reported in Chapter Four, Table 4.1, is presented on the following pages. This table provides the identification number and a description for each of the independent and dependent variables studied.

The Major Hypothesis

The major hypothesis upon which this study evolved states that:

> there are no significant relationships among the characteristics of authoritarian personality; the characteristics of critical practicality; the observed behavior of male and female intern teachers, in regard to selected variables of teacher behavior, teaching in grades three, four, and five; and the cognition of the behavior of most teachers, in regard to selected variables of teacher behavior, as measured in male and female intern teachers teaching in grades three, four, and five.

In order to expedite the testing of the major hypothesis, nineteen questions were identified for study. Each of the questions was examined and analyzed independently; the results of this examination are reported in the following discussion.

In the initial examination of the data, the dependent variables (nos. 3-35) revealed exiguous differences among their standard deviations. This would indicate that small differences are present amid the subjects examined in this

Table 4.1. Identification of variables.

Number	Description of Variable
INDEPENDENT VARIABLES	
1	Mean item score; Calif. "F" Scale
2	Total raw score; Hidden Shapes Test
DEPENDENT VARIABLES	
(Dull-Stimulating Continuum)	
3	Observed Behavior
4	Cognition of Behavior; Linear Scale
5	Cognition of Behavior; Interview
(Nonanalytical-Analytical Continuum)	
6	Observed Behavior
7	Cognition of Behavior; Linear Scale
8	Cognition of Behavior; Interview
(Personal Convenience-Children's Welfare Continuum)	
9	Observed Behavior
10	Cognition of Behavior; Linear Scale
11	Cognition of Behavior; Interview
(Autocratic-Democratic Continuum)	
12	Observed Behavior
13	Cognition of Behavior; Linear Scale
14	Cognition of Behavior; Interview
(Harsh-Kindly Continuum)	
15	Observed Behavior
16	Cognition of Behavior; Linear Scale
17	Cognition of Behavior; Interview
(Stereotyped-Original Continuum)	
18	Observed Behavior
19	Cognition of Behavior; Linear Scale
20	Cognition of Behavior; Interview
(Inflexible-Adaptable Continuum)	
21	Observed Behavior
22	Cognition of Behavior; Linear Scale
23	Cognition of Behavior; Interview

Continued

Table 4.1 - Continued

Number	Description of Variable
(Aprofessional-Professional Continuum)	
24	Observed Behavior
25	Cognition of Behavior; Linear Scale
26	Cognition of Behavior; Interview
(Circumventor-Conformer Continuum)	
27	Observed Behavior
28	Cognition of Behavior; Linear Scale
29	Cognition of Behavior; Interview
(Insecure-Secure Continuum)	
30	Observed Behavior
31	Cognition of Behavior; Linear Scale
32	Cognition of Behavior; Interview
(Dissatisfied-Satisfied Continuum)	
33	Observed Behavior
34	Cognition of Behavior; Linear Scale
35	Cognition of Behavior; Interview

study, although the samples were collected from five different S.T.E.P. centers. A complete enumeration of these statistical measures follows on Table 4.2, pages 61-64.

Answers to the Questions Identified Under the Statement of the Problem

For purposes of enucleation, question nineteen will be discussed first, followed by the other questions in their original order.

Question XIX:

> Question number nineteen asked:
>
> To what extent are there significant differences between the male and female intern teachers teaching in grades three, four and five in regard to the following eighteen questions?

For each set of coefficients of correlation--male, female, and total--on the following tables, each sub-set of coefficients--male and female--was analyzed in advance of the total set in order to determine whether or not significant differences existed between these sub-groups. Via the application of Fisher's Logarithmic Transformation of *r*, it was educed that none of the differences found among the two groups, as indicated by the coefficients of correlation, were sufficiently large enough to be considered significant at or beyond the .05 level of confidence.[1]

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[1]Fisher's Logarithmic Transformation of *r* is discussed fully on pages 53-55 of Chapter Three.

Table 4.2. Means, standard deviations, and population standard deviations of variables examined in this study.

Variable Number	Mean	Standard Deviation	Population Standard Deviation[2]
1-			
Male	3.218	0.697	0.739
Female	2.996	0.681	0.702
Total	3.073	0.695	0.709
2-			
Male	22.556	5.995	5.833
Female	21.882	7.395	7.623
Total	22.115	6.807	6.942
3-			
Male	6.000	2.357	2.500
Female	7.471	2.172	2.239
Total	6.962	2.345	2.391
4-			
Male	3.111	1.197	1.269
Female	3.765	1.002	1.033
Total	3.538	1.117	1.140
5-			
Male	4.222	0.916	0.972
Female	4.529	0.915	0.943
Total	4.423	0.927	0.945
6-			
Male	5.889	2.331	2.472
Female	6.706	2.295	2.366
Total	6.423	2.340	2.386
7-			
Male	3.222	1.133	1.202
Female	3.529	1.377	1.419
Total	3.423	1.306	1.332
8-			
Male	4.111	1.286	1.364
Female	4.412	1.458	1.502
Total	4.308	1.408	1.436

continued

[2]Population standard deviation indicates the theoretical standard deviation which would be found among the selected variables if a true random sample could be obtained.

Table 4.2 - Continued

Variable Number	Mean	Standard Deviation	Population Standard Deviation
9-			
Male	6.444	2.587	2.744
Female	8.412	2.031	2.093
Total	7.731	2.427	2.475
10-			
Male	4.000	1.700	1.803
Female	2.765	1.214	1.241
Total	3.846	1.406	1.434
11-			
Male	4.444	1.499	1.590
Female	4.647	1.081	1.115
Total	4.577	1.246	1.270
12-			
Male	5.000	2.449	2.598
Female	8.000	2.029	2.092
Total	6.962	2.609	2.661
13-			
Male	3.667	1.054	1.118
Female	3.294	1.225	1.253
Total	3.423	1.182	1.206
14-			
Male	4.000	1.333	1.414
Female	3.824	1.248	1.286
Total	3.885	1.281	1.306
15-			
Male	6.333	2.867	3.041
Female	8.412	1.817	1.873
Total	7.692	2.446	2.494
16-			
Male	4.556	0.685	0.726
Female	4.353	0.762	0.786
Total	4.423	0.743	0.758
17-			
Male	4.667	1.333	1.414
Female	5.000	0.767	0.791
Total	4.885	1.013	1.033

continued

Table 4.2 - Continued

Variable Number	Mean	Standard Deviation	Population Standard Deviation
18-			
Male	5.556	2.266	2.404
Female	7.706	1.774	1.829
Total	6.962	2.210	2.254
19-			
Male	3.444	1.707	1.810
Female	3.176	1.689	1.741
Total	3.269	1.700	1.733
20-			
Male	4.444	1.343	1.424
Female	4.176	1.248	1.286
Total	4.269	1.288	1.313
21-			
Male	6.333	2.357	2.500
Female	7.706	1.807	1.863
Total	7.231	2.118	2.160
22-			
Male	4.667	0.667	0.707
Female	4.118	1.231	1.269
Total	4.308	1.101	1.123
23-			
Male	4.889	0.875	0.928
Female	4.882	0.963	0.993
Total	4.885	0.933	0.952
24-			
Male	7.000	2.309	2.449
Female	7.882	1.937	1.996
Total	7.577	2.115	2.157
25-			
Male	3.889	1.728	1.833
Female	3.118	1.529	1.576
Total	3.385	1.643	1.675
26-			
Male	4.444	1.423	1.509
Female	4.176	1.382	1.425
Total	4.269	1.402	1.430

continued

Table 4.2 - Continued

Variable Number		Mean	Standard Deviation	Population Standard Deviation
27-				
	Male	4.333	2.108	1.236
	Female	5.588	1.751	1.805
	Total	5.154	1.975	2.014
28-				
	Male	4.778	0.916	0.972
	Female	3.176	1.200	1.237
	Total	3.731	1.346	1.373
29-				
	Male	3.222	1.227	1.302
	Female	4.235	1.002	1.033
	Total	3.885	1.187	1.271
30-				
	Male	6.333	2.789	2.958
	Female	8.235	1.767	1.821
	Total	7.577	2.356	2.403
31-				
	Male	3.778	1.872	1.986
	Female	3.647	1.369	1.412
	Total	3.692	1.563	1.594
32-				
	Male	3.889	1.449	1.537
	Female	4.235	1.113	1.147
	Total	4.115	1.275	1.250
33-				
	Male	6.778	2.820	2.991
	Female	6.176	2.038	1.977
	Total	7.692	2.398	2.446
34-				
	Male	4.000	1.563	1.658
	Female	3.647	1.369	1.412
	Total	3.769	1.449	1.478
35-				
	Male	4.333	1.491	1.581
	Female	4.118	1.367	1.409
	Total	4.192	1.415	1.443

Thus, having verified the nonexistence of significant statistical differences between these groups, the coefficients of correlation can be considered as sub-sets of a quasi-homogeneous group.

Question I:

Question number one asked:

> To what extent do third, fourth and fifth grade intern teachers evidence the characteristics of authoritarian personality?

The analysis of the data collected from the California "F" Scale reveals that the mean scores for the male, female and total groups of intern teachers studied were less than the mean scores shown by Adorno, et al., in their study of authoritarian personality. Adorno reported mean scores of 3.69 for the men and 3.62 for the women in his sample of middle-class adults. Among S.T.E.P. intern teachers studied, the mean scores were 3.22 for the men and 3.00 for the women; the total group reported a mean of 3.07.

The lower mean values which were found among the intern teachers are consistent with the findings of H. M. McGee, who found that teachers, as a group, tend to be much less authoritarian than do most male and female middle-class adults.

From these findings it can be said that the S.T.E.P. intern teachers examined in this study are lower in authoritarian characteristics than are most middle-class adults. Further, they tend to be like those teachers studied by McGee, who were also lower in authoritarian characteristics than were Adorno's sample.

Question II:

Question number two asked:

To what extent do third, fourth, and fifth grade intern teachers evidence the characteristics of critical practicality?

The results of the Hidden Shapes Test tend to indicate that the S.T.E.P. intern teachers studied are relatively free from the compulsive-obsessive behavior that was described in the review of the literature and in the rationale for this test. The mean scores obtained on this test were 22.56 for the male group, 21.88 for the female group and 22.12 for the total group. These high scores--36.00 would equal a maximum positive score and -36.00 would equal a maximum negative score--tend to indicate that the subjects were relatively free from rigid conceptual habits and were able to analyze and assess each of the problems on the test with a high degree of accuracy. The range in scores of the groups studied are as follows:

male group - 14 through 34

female group - 1 through 32

total group - 1 through 34

Since norms for the Hidden Shapes Test have not as yet been published, it is only possible to make inferences from the analysis of the data which was obtained. However, the high scores from this test, indicating an absence of rigid conceptual patterns and habits, are consistent with the low scores on the California "F" Scale, characteristics of

authoritarianism, which also tend to indicate a lack of rigidity in thought and attitude patterns among the intern teachers studied in this sample.

Question III:

Question number three asked:

> To what extent is there a relationship between the characteristics of authoritarian personality and the characteristics of critical practicality among intern teachers teaching in grades three, four and five?

This question is intentionally broad in nature and specifies that no definite relationship exists between one's potential of authoritarian behavior and his index of critical practicality. Further, this question does not anticipate a direction for any correlation nor does it delimit any bounds for the behavior associated with these characteristics. As such, it is the pivotal point for this study.

In order to be considered significant, the coefficients of correlation, indicating the direction and degree of the relationship, would need to be greater than or equal to those values shown on Table 4.3, below. (The significant coefficients of correlation are identified by single or double asterisks. A single asterisk indicates significance which is greater than or equal to the .05 level. Double asterisks indicate significance which is greater than or equal to the .01 level.)

In examining Table 4.4, the coefficients of correlation between independent variables one and two show that no significant relationship exists between one's potential of authoritarian behavior and his index of critical practicality.

Table 4.3. One percent and five percent levels of significance for nine, seventeen, and twenty-six degrees of freedom for the coefficient of correlation.

Degrees of Freedom (N-2)	Minimum value of r in order to be significant r = .05*	r = .01*
9 (male)	.6664	.7977
17 (female)	.4821	.6055
26 (total)	.3882	.4958

*Without reference to the sign of r. These are two-tailed levels of significance.[3]

Table 4.4. Coefficients of correlation between the characteristics of authoritarian personality and the characteristics of critical practicality.

Group:	Male	Female	Total
r =	.576	-.130	.080

All coefficients of correlation ciphered in studying question one, as shown on Table 4.4, are less than the minimum value necessary to indicate statistical significance at or beyond the .05 level. As a result, it is established that

[3]Konrad Diem (ed.), Documenta Geigy: Scientific Tables (Sixth Edition, Ardsley, New York: Geigy Pharmaceuticals, Division of Geigy Chemical Corporation, 1962), p. 61.

no significant relationship is present between one's potential of authoritarian behavior and his index of critical practicality, as measured by the instruments used in this study, among the selected subjects.

Question IV:

Question number four asked:

> What are the characteristics of the observed behavior of intern teachers (teaching in grades three, four, and five), in regard to the selected variables of teacher behavior?

The mean values of the observed teaching behavior of intern teachers, sampled in this study, are reported on Table 4.5. Table 4.6 reports the standard deviations of observed behavior on the selected variables of teacher behavior.

The observed behavior of the selected intern teachers, as shown on Table 4.5 demonstrates the following ranges. (The difference between high and low values are reported following the slash mark.)

male group - 4.33 to 6.78 / 2.45

female group - 5.59 to 8.41 / 2.82

total group - 5.15 to 7.73 / 2.58

The ranges in the standard deviation reported on Table 4.6 are as follows:

male group - 2.11 to 2.87 / 0.76

female group - 1.77 to 2.29 / 0.52

total group - 1.97 to 2.61 / 0.64

Table 4.5. Mean values of observed behavior.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	6.00	7.47	6.96
Nonanalytical-Analytical	5.88	6.71	6.42
Personal Convenience-Children's Welfare	6.44	8.41	7.73
Autocratic-Democratic	5.00	8.00	6.96
Harsh-Kindly	6.33	8.41	7.69
Stereotyped-Original	5.56	7.71	6.96
Inflexible-Adaptable	6.33	7.71	7.23
Aprofessional-Professional	7.00	7.88	7.58
Circumventor-Conformer	4.33	5.59	5.15
Insecure-Secure	6.33	8.24	7.58
Dissatisfied-Satisfied	6.78	8.18	7.69

* = .05 level
** = .01 level

Table 4.6. Standard deviation of observed behavior.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	2.36	2.17	2.35
Nonanalytical-Analytical	2.33	2.29	2.34
Personal Convenience-Children's Welfare	2.59	2.03	2.42
Autocratic-Democratic	2.45	2.03	2.61
Harsh-Kindly	2.87	1.82	2.45
Stereotyped-Original	2.27	1.77	2.21
Inflexible-Adaptable	2.36	1.81	2.12
Aprofessional-Professional	2.31	1.94	1.97
Circumventor-Conformer	2.11	1.75	1.97
Insecure-Secure	2.79	1.77	2.36
Dissatisfied-Satisfied	2.82	2.04	2.40

* = .05 level
** = .01 level

The intern teachers studied were rated on a ten point continuum scale for each of the selected variables of teacher behavior. A mean of 5.00 would indicate that the observed behavior was exactly midway between the terminal points of the continuum. The following recapitulation reports the direction and distance off center and the standard deviation found for each group on the selected variables of teacher behavior.

1. Dull-Stimulating Behavior:

    a. male group - 1.00 point off center toward stimulating behavior; s.d. = 2.36.

    b. female group - 2.47 points off center toward stimulating behavior; s.d. = 2.17.

    c. total group - 1.96 points off center toward stimulating behavior; s.d. = 2.35.

2. Nonanalytical-Analytical Behavior:

    a. male group - 0.88 point off center toward analytical behavior; s.d. = 2.33.

    b. female group - 1.71 points off center toward analytical behavior; s.d. = 2.29.

    c. total group - 1.42 points off center toward analytical behavior; s.d. = 2.34.

3. Personal Convenience-Children's Welfare Behavior:

    a. male group - 1.44 points off center toward children's welfare behavior; s.d. = 2.59.

    b. female group - 3.41 points off center toward children's welfare behavior; s.d. = 2.03.

    c. total group - 2.73 points off center toward children's welfare behavior; s.d. = 2.42.

4. Autocratic-Democratic Behavior:

    a. male group - 0.00 points off center; s.d. = 2.45.

b. female group - 3.00 points off center toward democratic behavior; s.d. = 2.03.

c. total group - 1.96 points off center toward democratic behavior; s.d. = 2.61.

5. Harsh-Kindly Behavior:

a. male group - 1.33 points off center toward kindly behavior; s.d. = 2.87.

b. female group - 3.41 points off center toward kindly behavior; s.d. = 1.82.

c. total group - 2.69 points off center toward kindly behavior; s.d. = 2.45.

6. Stereotyped-Original Behavior:

a. male group - 0.56 points off center toward original behavior; s.d. = 2.27.

b. female group - 2.71 points off center toward original behavior; s.d. = 1.77.

c. total group - 1.96 points off center toward original behavior; s. d. = 2.21.

7. Inflexible-Adaptable Behavior:

a. male group - 1.33 points off center toward adaptable behavior; s.d. = 2.36.

b. female group - 2.71 points off center toward adaptable behavior; s.d. = 1.81.

c. total group - 2.23 points off center toward adaptable behavior; s.d. = 2.12.

8. Aprofessional-Professional Behavior:

a. male group - 2.00 points off center toward professional behavior; s.d. = 2.31.

b. female group - 2.88 points off center toward professional behavior; s.d. = 1.94.

c. total group - 2.58 points off center toward professional behavior; s.d. = 1.97.

9. Circumventor-Conformer Behavior:

    a. male group - 0.67 points off center toward circumventor behavior; s.d. = 2.11.

    b. female group - 0.59 points off center toward conformer behavior; s.d. = 1.75.

    c. total group - 0.15 points off center toward conformer behavior; s.d. = 1.97.

10. Insecure-Secure Behavior:

    a. male group - 1.33 points off center toward secure behavior; s.d. = 2.79.

    b. female group - 3.24 points off center toward secure behavior; s.d. = 1.77.

    c. total group - 2.58 points off center toward secure behavior; s.d. = 2.36.

11. Dissatisfied-Satisfied Behavior:

    a. male group - 1.78 points off center toward satisfied behavior; s.d. = 2.82.

    b. female group - 3.18 points off center toward satisfied behavior; s.d. = 2.04.

    c. total group - 2.69 points off center toward satisfied behavior; s.d. = 2.40.

Question V:

Question number five asked:

To what extent is there a significant relationship between the characteristics of authoritarian personality and the characteristics of observed behavior of intern teachers (teaching in grades three, four, and five), in regard to the selected variables of teacher behavior?

In order to study question five, the scores from the California "F" Scale were correlated with the scores from the Intern Teacher Behavior Scale on each of the eleven selected variables of teacher behavior. The variables correlated are

independent variable one and dependent variables 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, and 33. Table 4.7, reports these coefficients of correlation.

Table 4.7. Coefficients of correlation between authoritarian personality characteristics and the observed behavior of intern teachers.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	.542	.227	.279
Nonanalytical-Analytical	.536	.011	.167
Personal Convenience-Children's Welfare	.372	.284	.231
Autocratic-Democratic	.382	.182	.133
Harsh-Kindly	.307	.113	.117
Stereotyped-Original	.202	.083	.044
Inflexible-Adaptable	-.028	.302	.108
Aprofessional-Professional	.250	.293	.237
Circumventor-Conformer	.112	.068	.034
Insecure-Secure	.165	.227	.118
Dissatisfied-Satisfied	-.007	.282	.104

* = .05 level
** = .01 level

An examination of the coefficients of correlation on Table 4.7 reveals that none of the thirty-three coefficients demonstrate a significant relationship between the independent and the dependent variables. From this analysis, one might conclude that authoritarian personality had no relation to the overt behavior which was demonstrated by the intern teachers that were studied. This conclusion, however, would very likely be a false one! It will be shown that when viewed within the perspective of the total study, the above conclusion of no relationship is not within reason.

It would be more nearly correct to conclude that intern teachers are able to ensconse or sublimate their potential for authoritarian behavior and in so doing, are able to demonstrate acceptable teaching behavior in the eyes of their supervisors. In addition, it was shown that, as a group, the intern teachers examined tend to exhibit a rather small potential for authoritarian behavior, as indicated by the "F" Scale scores. This being the case, the lack of significant correlation between the characreristics of authoritarian personality and the characteristics of overt behavior, as measured in third, fourth and fifth grade intern teachers, are consistent with the other findings reported in this chapter.

Question VI:

Question number six asked:

To what extent is there a significant relationship between the characteristics of critical practicality

> and the characteristics of observed behavior of intern teachers (teaching in grades three, four, and five), in regard to the selected variables of teacher behavior?

To test question six, the scores from the Hidden Shapes Test were correlated with the scores for the Intern Teacher Behavior Scale on each of the eleven selected variables of teacher behavior. Table 4.8 lists the coefficients of correlation computed between independent variable two and dependent variables 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, and 33. Unlike the nonsignificant relationships found among the characteristics of authoritarian personality and the selected variables of observed behavior, the characteristics of critical practicality do demonstrate a few significant relationships with the selected variables of observed behavior.

Table 4.8 (on the following page) shows that of the coefficients of correlation which are greater than the .05 level, none are found among the male group. The female group shows significant negative correlations among three of the variables.

Within the total group, one coefficient was found to be greater than the .05 level of significance. Its significance, however, is attributed to affect of the highly significant correlation greater than the .01 level which is found in the female group.

The following outline reports the significant correlations found in studying question six.

Table 4.8. Coefficients of correlation between critical practicality and the observed behavior of intern teachers.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	.429	-.451	-.190
Nonanalytical-Analytical	.430	-.241	-.056
Personal Convenience-Children's Welfare	.264	-.314	-.126
Autocratic-Democratic	.495	-.647**	-.253
Harsh-Kindly	.178	-.447	-.197
Stereotyped-Original	.323	-.348	-.128
Inflexible-Adaptable	-.032	-.645**	-.415*
Aprofessional-Professional	.394	-.523*	-.229
Circumbentor-Conformer	.492	-.037	.156
Insecure-Secure	.140	-.381	-.174
Dissatisfied-Satisfied	.151	-.385	-.187

* = .05 level
** = .01 level

I. Significant Relationships Between Observed Behavior and Critical Practicality.

A. Those greater than or equal to the .01 level of significance.

1) male group

a) none

2) female group

a) variable 12; autocratic-democratic behavior.

b) variable 21; inflexible-adaptable behavior.

3) total group

a) none

B. Those greater than or equal to the .05 level of significance.

1) male group

a) none

2) female group

a) variable 24; aprofessional-professional behavior.

3) total group

a) variable 21; inflexible-adaptable behavior.

As is seen in the outline above, three of the selected variables of teacher behavior, autocratic-democratic behavior, inflexible-adaptable behavior and aprofessional-professional behavior demonstrate significant relationships with the characteristics of critical practicality. These significant correlations are NEGATIVE rather than positive, however!

From this analysis, it appears logical to assume that intern teachers demonstrating a significant degree of critical practicality would not be verificative of the ideals and aims and objectives associated with democratic, adaptable and professional teaching behavior. In light of the findings presented, the results of the analysis of question six appear to be consistent with the results educed in the preceding questions.

Question VII:

Question number seven asked:

> What is the intern teacher's cognition of the behavior of most teachers (as measured on a linear scale), in regard to the selected variables of teacher behavior?

The mean values of the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, are reported on Table 4.9. Table 4.10 reports the standard deviations of the cognition of behavior, measured on the linear scale, among the selected variables of teacher behavior.

The intern teacher's cognition of the behavior of most teacher demonstrates the following ranges, as indicated on Table 4.9. (The difference between the high and the low values are reported following the slash mark.)

male group - 3.11 to 4.78 / 1.67

female group - 3.12 to 4.35 / 1.23

total group - 3.27 to 4.42 / 1.15

The ranges in the standard deviations reported on Table 4.10 are as follows:

Table 4.9. Mean values of cognition of teacher behavior, measured on linear scales.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	3.11	3.76	3.54
Nonanalytical-Analytical	3.22	3.53	3.42
Personal Convenience-Children's Welfare	4.00	3.76	3.85
Autocratic-Democratic	3.67	3.29	3.42
Harsh-Kindly	4.56	4.35	4.42
Stereotyped-Original	3.44	3.18	3.27
Inflexible-Adaptable	4.67	4.12	4.31
Aprofessional-Professional	3.89	3.12	3.38
Circumventor-Conformer	4.78	3.18	3.73
Insecure-Secure	3.78	3.65	3.69
Dissatisfied-Satisfied	4.00	3.65	3.78

* = .05 level
** = .01 level

Table 4.10. Standard deviation of cognition of teacher behavior, measured on linear scales.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	1.20	1.00	1.12
Nonanalytical-Analytical	1.13	1.38	1.31
Personal Convenience-Children's Welfare	1.70	1.21	1.41
Autocratic-Democratic	1.05	1.23	1.18
Harsh-Kindly	0.68	0.76	0.74
Stereotyped-Original	1.71	1.69	1.70
Inflexible-Adaptable	0.67	1.23	1.10
Aprofessional-Professional	1.73	1.53	1.64
Circumventor-Conformer	0.92	1.20	1.35
Insecure-Secure	1.87	1.37	1.56
Dissatisfied-Satisfied	1.56	1.37	1.45

* = .05 level
** = .01 level

male group - 0.68 to 1.87 / 0.19

female group - 0.76 to 1.69 / 0.93

total group - 0.74 to 1.70 / 0.96

The intern teachers examined, reported their cognition of the behavior of most teachers on a seven point scale devised to explore each of the selected variables of teacher behavior. These scales were identified as the Linear Cognition Scales.

A mean of 3.00 would indicate that the cognition of the behavior of most teachers as found in the intern teachers studied was exactly mid-way between the terminal points of the continuum. The following recapitulation reports the direction and distance off center and the standard deviation found for each group on the selected variables of teacher behavior.

1. Dull-Stimulating Behavior:

    a. male group - 0.11 points off center toward stimulating behavior; s.d. = 1.20.

    b. female group - 0.76 points off center toward stimulating behavior; s.d. = 1.00.

    c. total group - 0.54 points off center toward stimulating behavior; s.d. = 1.12.

2. Nonanalytical-Analytical Behavior:

    a. male group - 0.22 points off center toward analytical behavior; s.d. = 1.13.

    b. female group - 0.53 points off center toward analytical behavior; s.d. = 1.38.

    c. total group - 0.42 points off center toward analytical behavior; s.d. = 1.31.

3. Personal Convenience-Children's Welfare Behavior:

    a. male group - 1.00 point off center toward children's welfare behavior; s.d. = 1.70.

b. female group - 0.76 points off center toward children's welfare behavior; s.d. = 1.21.

c. total group - 0.85 points off center toward children's welfare behavior; s.d. = 1.41.

4. Autocratic-Democratic Behavior:

a. male group - 0.67 points off center toward democratic behavior; s.d. = 1.05.

b. female group - 0.29 points off center toward democratic behavior; s.d. = 1.23.

c. total group - 0.42 points off center toward democratic behavior; s.d. = 1.18.

5. Harsh-Kindly Behavior:

a. male group - 1.56 points off center toward kindly behavior; s.d. = 0.68.

b. female group - 1.35 points off center toward kindly behavior; s.d. = 0.76.

c. total group - 1.42 points off center toward kindly behavior; s.d. = 0.74.

6. Stereotyped-Original Behavior:

a. male group - 0.44 points off center toward original behavior; s.d. = 1.71.

b. female group - 0.18 points off center toward original behavior; s.d. = 1.69.

c. total group - 0.27 points off center toward original behavior; s.d. = 1.70.

7. Inflexible-Adaptable Behavior:

a. male group - 1.67 points off center toward adaptable behavior; s.d. = 0.67.

b. female group - 1.12 points off center toward adaptable behavior; s.d. = 1.23.

c. total group - 1.31 points off center toward adaptable behavior; s.d. = 1.10.

8. Aprofessional-Professional Behavior:

a. male group - 0.89 points off center toward professional behavior; s.d. = 1.73.

b. female group - 0.12 points off center toward professional behavior; s.d. = 1.53.

c. total group - 0.38 points off center toward professional behavior; s.d. = 1.64.

9. Circumventor-Conformer Behavior:

a. male group - 1.78 points off center toward conformer behavior; s.d. = 0.92.

b. female group - 0.18 points off center toward conformer behavior; s.d. = 1.20.

c. total group - 0.73 points off center toward conformer behavior; s.d. = 1.35.

10. Insecure-Secure Behavior:

a. male group - 0.78 points off center toward secure behavior; s.d. = 1.87.

b. female group - 0.65 points off center toward secure behavior; s.d. = 1.37.

c. total group - 0.69 points off center toward secure behavior; s.d. = 1.56.

11. Dissatisfied-Satisfied Behavior:

a. male group - 1.00 point off center toward satisfied behavior; s.d. = 1.56.

b. female group - 0.65 points off center toward satisfied behavior; s.d. = 1.37.

c. total group - 0.78 points off center toward satisfied behavior; s.d. = 1.45.

By comparison with their overt behavior, the intern teachers sampled tend to be rather conservative in expressing their cognition of the behavior of most teachers, on a linear scale, and tended to indicate their response very near the center-point on the Linear Cognition Scales.

Question VIII:

Question number eight asked:

> To what extent is there a significant relationship between the characteristics of authoritarian personality and the intern teacher's cognition of the behavior of most teachers (as measured on a linear scale), in regard to the selected variables of teacher behavior?

Question eight was studied by computing a coefficient of correlation from the scores obtained from the California "F" Scale and the scores obtained from the Linear Cognition Scales. The specific variables correlated were independent variable one and dependent variables 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, and 34. Table 4.11 lists these coefficients of correlation.

Table 4.11 indicates that two of the dependent variables--numbers 22 and 34--show a significant correlation with the characteristics of authoritarian personality. Of the significant correlations, none are found among the male group. It should be noted, however, that the coefficients on five of the variables of behavior are very near the level needed for significance among the male group; perhaps further investigation would show some significance among these variables. Further investigation, however, is beyond the scope of this study at this time.

The significant correlations are found on the adaptable-inflexible dimension in both the female and total groups. These coefficients are greater than or equal to the .01 level of significance. The coefficient of correlation in the male

Table 4.11. Coefficients of correlation between authoritarian personality and the intern teacher's cognition of most teachers' behavior as measured on a linear scale.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	.210	.376	.252
Nonanalytical-Analytical	.303	.017	.086
Personal Convenience-Children's Welfare	.651	.077	.373
Autocratic-Democratic	-.031	.344	.242
Harsh-Kindly	-.102	.417	.261
Stereotyped-Original	.576	.242	.366
Inflexible-Adaptable	.495	.634**	.595**
Aprofessional-Professional	.599	.006	.257
Circumventor-Conformer	.148	-.068	.082
Insecure-Secure	.096	.038	.067
Dissatisfied-Satisfied	.549	.336	.426*

* = .05 level
** = .01 level

group for this dimension is not in itself significant at nine degrees of freedom, but it is large enough to permit the coefficient for the total group to be significant beyond the .01 level.

The final significant coefficient of correlation on Table 4.11 is found in the total group on the satisfied-dissatisfied dimension. This coefficient demonstrates a significance which is greater than the .05 level of confidence.

The following outline lists the significant coefficients of correlation found in testing question eight:

I. Significant Relationships Between Characteristics of Authoritarian Personality and Cognition of Behavior, as Measured on a Linear Scale.

A. Those greater than or equal to the .01 level of significance.

1) male group

a) none

2) female group

a) variable 22; inflexible-adaptable/ authoritarian personality: linear scale.

3) total group

a) variable 22; inflexible-adaptable/ authoritarian personality: linear scale.

B. Those greater than or equal to the .05 level of significance.

1) male group

a) none

2) female group

a) none

3) total group

a) variable 34; dissatisfied-satisfied/ authoritarian personality: linear scale.

The significant relationships which were reported, associated with the inflexible-adaptable variable, would appear to re-inforce the assumption that the intern teachers sampled are rather adaptable in most situations. This is likely due to their generally low potential for authoritarian behavior as measured on the California "F" Scale.

As was shown earlier, the characteristics of inflexible-adaptable behavior as measured in overt behavior were also found to be significantly correlated to the characteristics of critical practicality, BUT, in a negative relationship indicating that intern teachers are not rigid or dogmatic in their approaches to new situations and problems. Further, the significant correlation found on the dissatisfied-satisfied dimension would tend to lend support to this notion. Being adaptable and generally non-authoritarian in behavior, intern teachers are flexible enough to be satisfied in their positions, or, at least, are not inflexible to the point of being dissatisfied enough to indicate this sentiment in their responses given on the test instruments used to collect this data.

Question IX:

Question number nine asked:

To what extent is there a significant relationship between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers (as measured on a linear scale), in regard to the selected variables of teacher behavior?

To test sub-hypothesis five the scores obtained from the Hidden Shapes Test and the scores obtained from the Linear Cognition Scales were correlated on each of the eleven selected variables of teacher behavior. The specific variables correlated were independent variable two and dependent variables 4, 7, 10, 13, 16, 19, 22, 25, 28, 31, and 34. These coefficients of correlation are reported on Table 4.12 on the following page.

Intern teacher cognition of the behavior of most teachers, in regard to the selected variables of teacher behavior, failed to exhibit any significant correlation with the characteristics of critical practicality with one exception. Within the male group it was found, when analyzing question nine, that a significant relationship, greater than the .05 level of significance, was present between dependent variable seven, non-analytical-analytical behavior, and the characteristics of critical practicality.

From studying these variables, a certain degree of confidence can be placed in this relationship. A review of the range, mean and standard deviation obtained from the male group on the Hidden Shapes Test reveals the following data. The range in scores were from 14 to 34 with a mean of 22.556 and a s.d. of 5.994. (The possible range on the Hidden Shapes Test is from -36.00 to +36.00.)

The high scores and high mean obtained in the male group tends to indicate that this group exemplifies an absence of

Table 4.12. Coefficients of correlation between critical practicality and the intern teacher's cognition of most teachers' behavior as measured on a linear scale.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	.295	-.131	-.008
Nonanalytical-Analytical	.676*	.151	.271
Personal Convenience-Children's Welfare	.285	.095	.159
Autocratic-Democratic	.472	.049	.161
Harsh-Kindly	.272	-.452	-.253
Stereotyped-Original	.518	-.126	.060
Inflexible-Adaptable	.626	-.102	.036
Aprofessional-Professional	.322	-.134	.017
Circumventor-Conformer	-.196	.042	.016
Insecure-Secure	.228	-.393	-.167
Dissatisfied-Satisfied	.349	-.048	.081

* = .05 level
** = .01 level

rigid conceptual patterns and habits. Further, this kind of behavior would certainly be embraced in the terminal-point definition for analytical behavior which is defined in this study. Since, by definition, a lack of rigid conceptual patterns and habits are a part of analytical behavior, it can be accepted that this relationship is significant within the framework of this study.

Question X:

> Question number ten asked:
>
> What is the intern teacher's cognition of the behavior of most teachers (as measured in a structured interview), in regard to the selected variables of teacher behavior?

The mean values of the intern teacher's cognition of the behavior of most teachers, as measured in a structured interview, are reported on Table 4.13. Table 4.14 reports the standard deviations of the cognition of behavior, measured in a structured interview, among the selected variables of teacher behavior.

The intern teacher's cognition of the behavior of most teachers demonstrated the following ranges, as indicated on Table 4.13. (The difference between the high and the low values are reported following the slash mark.)

male group - 3.22 to 4.89 / 1.67

female group - 3.82 to 5.00 / 1.18

total group - 3.88 to 4.88 / 1.00

The ranges in the standard deviations reported on Table 4.14 are as follows:

Table 4.13. Mean values of cognition of teacher behavior, measured in a structured interview.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	4.22	4.53	4.42
Nonanalytical-Analytical	4.11	4.41	4.31
Personal Convenience-Children's Welfare	4.44	4.65	4.58
Autocratic-Democratic	4.00	3.82	3.88
Harsh-Kindly	4.67	5.00	4.88
Stereotyped-Original	4.44	4.18	4.27
Inflexible-Adaptable	4.89	4.88	4.88
Aprofessional-Professional	4.44	4.18	4.27
Circumventor-Conformer	3.22	4.24	3.88
Insecure-Secure	3.89	4.24	4.12
Dissatisfied-Satisfied	4.33	4.12	4.19

* = .05 level
** = .01 level

Table 4.14. Standard deviation of cognition of teacher behavior, measured in a structured interview.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	0.92	0.92	0.92
Nonanalytical-Analytical	1.29	1.46	1.41
Personal Convenience-Children's Welfare	1.50	1.08	1.25
Autocratic-Democratic	1.33	1.25	1.28
Harsh-Kindly	1.33	0.77	1.01
Stereotyped-Original	1.34	1.25	1.29
Inflexible-Adaptable	0.87	0.96	0.93
Aprofessional-Professional	1.42	1.38	1.40
Circumventor-Conformer	1.23	1.00	1.19
Insecure-Secure	1.45	1.11	1.28
Dissatisfied-Satisfied	1.49	1.37	1.41

* = .05 level
** = .01 level

male group - 0.87 to 1.50 / 0.63

female group - 0.92 to 1.46 / 0.54

total group - 0.92 to 1.41 / 0.49

The intern teachers examined, reported their cognition of the behavior of most teachers via a structured interview designed to explore each of the selected variables of teacher behavior. The transcripts of these interviews were evaluated to assess the intern teacher's cognition of the behavior of most teachers. A seven point scale was used to quantify the results of the analysis.

A mean of 3.00 would indicate that the cognition of the behavior of most teachers, as found in the intern teachers studied, was exactly mid-way between the terminal points of the continuum. The following recapitulation reports the direction and distance off center and the standard deviation found for each group on the selected variables of teacher behavior.

1. Dull Stimulating Behavior:

    a. male group - 1.22 points off center toward stimulating behavior; s.d. = 0.92

    b. female group - 1.53 points off center toward stimulating behavior; s.d. = 0.92.

    c. total group - 1.42 points off center toward stimulating behavior; s.d. = 0.92.

2. Nonanalytical-Analytical Behavior:

    a. male group - 1.11 points off center toward analytical behavior; s.d. = 1.29.

    b. female group - 1.41 points off center toward analytical behavior; s.d. = 1.46.

c. total group - 1.31 points off center toward analytical behavior; s.d. = 1.41.

3. Personal Convenience-Children's Welfare Behavior:

a. male group - 1.44 points off center toward children's welfare behavior; s.d. = 1.50.

b. female group - 1.65 points off center toward children's welfare behavior; s.d. = 1.08.

c. total group - 1.58 points off center toward children's welfare behavior; s.d. = 1.25.

4. Autocratic-Democratic Behavior:

a. male group - 1.00 point off center toward democratic behavior; s.d. = 1.33.

b. female group - 0.82 points off center toward democratic behavior; s.d. = 1.25.

c. total group - 0.88 points off center toward democratic behavior; s.d. = 1.28.

5. Harsh-Kindly Behavior:

a. male group - 1.67 points off center toward kindly behavior; s.d. = 1.33.

b. female group - 2.00 points off center toward kindly behavior; s.d. = 0.77.

c. total group - 1.88 points off center toward kindly behavior; s.d. = 1.01.

6. Stereotyped-Original Behavior:

a. male group - 1.44 points off center toward original behavior; s.d. = 1.34.

b. female group - 1.18 points off center toward original behavior; s.d. = 1.25.

c. total group - 1.27 points off center toward original behavior; s.d. = 1.29.

7. Inflexible-Adaptable Behavior:

a. male group - 1.89 points off center toward adaptable behavior; s.d. = 0.87.

b. female group - 1.88 points off center toward adaptable behavior; s.d. = 0.96.

c. total group - 1.88 points off center toward adaptable behavior; s.d. = 0.93.

8. Aprofessional-Professional Behavior:

a. male group - 1.44 points off center toward professional behavior; s.d. = 1.42.

b. female group - 1.18 points off center toward professional behavior; s.d. = 1.38.

c. total group - 1.27 points off center toward professional behavior; s.d. = 1.40.

9. Circumventor-Conformer Behavior:

a. male group - 0.22 points off center toward conformer behavior; s.d. = 1.23.

b. female group - 1.24 points off center toward conformer behavior; s.d. = 1.00.

c. total group - 0.88 points off center toward conformer behavior; s.d. = 1.19.

10. Insecure-Secure Behavior:

a. male group - 0.89 points off center toward secure behavior; s.d. = 1.45.

b. female group - 1.24 points off center toward secure behavior; s.d. = 1.11.

c. total group - 1.12 points off center toward secure behavior; s.d. = 1.28.

11. Dissatisfied-Satisfied Behavior:

a. male group - 1.33 points off center toward satisfied behavior; s.d. = 1.49.

b. female group - 1.12 points off center toward satisfied behavior; s.d. = 1.37.

c. total group - 1.19 points off center toward satisfied behavior; s.d. = 1.41.

In comparing Tables 4.5 and 4.9 to Table 4.13 it is seen that the cognition of the behavior of most teachers which is

expressed by the intern teachers, examined in this study, is noticeably more conservative than the overt behavior they display when practicing the art of teaching. Further, the cognition of most teacher's behavior which was expressed on the Linear Cognition Scales tends to be considerably more conservative than the cognition of most teacher's behavior which was expressed in the structured interview.

Question XI:

Question number eleven asked:

> To what extent is there a significant relationship between the characteristics of authoritarian personality and the intern teacher's cognition of the behavior of most teachers (as measured in a structured interview), in regard to the selected variables of teacher behavior?

Question eleven was tested by computing a coefficient of correlation from the scores obtained on the California "F" Scale and the scores obtained from the structured interviews which were held with each of the intern teachers sampled in this study. The specific variables correlated were independent variable one and dependent variables 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, and 35. Table 4.15 lists these coefficients of correlation.

It was found in studying question eleven that five significant correlations were present among the variables tested. These correlations are indicated on Table 4.15. On the stereotyped-original dimension, dependent variable twenty demonstrates a significant correlation with independent variable one in the total group but not in the male or female groups.

Table 4.15. Coefficients of correlation between authoritarian personality and the intern teacher's cognition of most teachers' behavior as measured via a structured interview.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	.164	.270	.203
Nonanalytical-Analytical	.148	.126	.115
Personal Convenience-Children's Welfare	.391	.298	.318
Autocratic-Democratic	.037	.314	.219
Harsh-Kindly	.379	.248	.270
Stereotyped-Original	.335	.416	.395*
Inflexible-Adaptable	.114	.744**	.536**
Aprofessional-Professional	.377	.360	.375
Circumventor-Conformer	-.711*	.085	-.271
Insecure-Secure	-.003	.055	.010
Dissatisfied-Satisfied	.476	.447	.462*

* = .05 level
** = .01 level

The characteristics associated with inflexible-adaptable behavior, dependent variable twenty-three, show a highly significant correlation at greater than the .01 level in both the female and total groups. The male group on this dimension, however, does not indicate a correlation that is anywhere near being significant.

Dependent variable twenty-nine, the circumventor-conformer dimension, shows a negative correlation at greater than the .05 level of significance with independent variable one in the male group. Contrary to most correlations thus far examined in this study, the coefficients of correlation for the female and total groups are not significant in comparison to the male group.

The final significant correlation indicated on Table 4.15 is found between dependent variable thirty-five, dissatisfied-satisfied, and independent variable one. This correlation is found in the total group. Here it is shown that the characteristics of satisfied or dissatisfied behavior correlate significantly at or beyond the .05 level with the characteristics of authoritarian personality.

The examination of the data related to question eleven presented five significant correlations between the characteristics of authoritarian personality and the intern teacher's cognition of the behavior of most other teachers. The five significant correlations were found among four of the selected variables of teacher behavior. The following outline lists the significant correlations and their levels of significance:

I. Significant Relationships Between the Characteristics of Authoritarian Personality and the Intern Teacher's Cognition of the Behavior of Most Teachers, as Measured in a Structured Interview.

A. Those greater than or equal to the .01 level of significance.

1) male group

a) none

2) female group

a) variable 23; inflexible-adaptable/ authoritarian personality: interview

3) total group

a) variable 23; inflexible-adaptable/ authoritarian personality: interview

B. Those greater than or equal to the .05 level of significance.

1) male group

a) variable 29; circumventor-conformer/ authoritarian personality: interview

2) female group

a) none

3) total group

a) variable 20; stereotyped-original/ authoritarian personality: interview

b) variable 35; dissatisfied-satisfied behavior/authoritarian personality: interview.

Again as in preceding questions, the selected variable of inflexible-adaptable behavior exhibits a significant correlation, beyond the .01 level, among two of the groups studied. The recurrence of these relationships serves further to reinforce the notion that the intern teachers examined in this

sample tend to be non-rigid and rather adaptable in most situations.

Within the male group, cognition of the behavior of most teachers on the circumventor-conformer dimension demonstrates a significant relationship with the characteristics of authoritarian personality which is greater than or equal to the .05 level of significance. Table 4.13 reports a mean of 3.22 and Table 4.14 reports a standard deviation of 1.23 for the circumventor-conformer variable.

Although the distance off center is slight, 22/100 of a point, the correlation is significant when compared with the terminal-point characteristics of conforming behavior. However, because the interns' cognition of teacher behavior, as measured in a structured interview, demonstrated such a minute difference from the center point, no firm inferences can be drawn from this relationship.

Question XII:

Question number twelve asked:

> To what extent is there a significant relationship between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers (as measured in a structured interview), in regard to the selected variables of teacher behavior?

To test question twelve, the scores obtained from the Hidden Shapes Test and the scores obtained from the structured interview with each of the intern teachers sampled in this study were correlated on each of the eleven selected variables of teacher behavior. The specific variables correlated were

independent variable two and dependent variables 5, 8, 11, 14, 17, 20, 23, 26, 29, 32, and 35. These coefficients of correlation are reported on Table 4.16 which follows.

Table 4.16. Coefficients of correlation between critical practicality and the intern teacher's cognition of most teachers' behavior as measured via a structured interview.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	.240	-.208	-.087
Nonanalytical Analytical	.258	-.066	.012
Personal Convenience-Children's Welfare	.267	-.255	-.071
Autocratic-Democratic	.136	-.085	-.016
Harsh-Kindly	.192	-.353	-.126
Stereotyped-Original	.403	-.457	-.192
Inflexible-Adaptable	.174	-.340	-.204
Aprofessional-Professional	.380	-.199	-.027
Circumventor-Conformer	-.134	.305	.125
Insecure-Secure	.147	-.047	.012
Dissatisfied-Satisfied	.384	-.185	-.010

* = .05 level
** = .01 level

In examining Table 4.16, it was found that intern teacher cognition of the behavior of most teachers, in regard to the selected variables of teacher behavior, failed to exhibit any significant correlation with the characteristics of critical practicality. It was noted, however, that among the coefficients of correlation computed within the female group, all but one, the circumventor-conformer variable, demonstrated a negative fit rather than a positive fit.

This would tend to indicate that the beliefs and attitudes held by intern teachers, regarding the behavior of most teachers, are not consistent and in accord with the measured characteristics of critical practicality among the female intern teachers tested. Since none of the relationships are statistically significant, no specific assumptions can be drawn beyond a very general and superficial assessment of the data examined.

Finally, the many negative coefficients of correlation found among the total group are accepted as being caused by the effect of the many negative coefficients of correlation among the female group.

Question XIII:

Question number thirteen asked:

> To what extent is there a significant relationship between the intern teacher's cognition of the behavior of most teachers (as measured on a linear scale), in regard to the selected variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers as measured in a structured interview?

Question thirteen was tested by computing a coefficient of correlation for each of the selected variables of behavior from the scores obtained from the Linear Cognition Scales and the scores obtained from the structured interviews. The specific variables correlated were the following dependent variables: 4/5, 7/8, 10/11, 13/14, 16/17, 19/20, 22/23, 25/26, 28/29, 31/32, and 34/35. Table 4.17 lists these coefficients of correlation.

A most distinctive difference is present among the coefficients of correlation which are listed on Table 4.17. All but a very few are statistically significant! More precisely, twenty-four of the thirty-three coefficients are significant at greater than the .01 level; four others show significant correlations beyond the .05 level. Only five of the thirty-three coefficients of correlation do not demonstrate any significant relationship between the variables tested.

Since the non-significant coefficients of correlation are in the minority, on Table 4.17, the initial phase of this analysis will focus upon these measures. The most noticeable lack of correlation is found on behavior variable nine--circumventor/conformer--which shows that no significant correlation is present between dependent variables twenty-eight and twenty-nine. This absence of significant correlation is present in all groups.

The remaining coefficients of correlation showing no significant correlation are behavior variable three--personal convenience/children's welfare--in the female group, dependent

Table 4.17. Coefficients of correlation between cognition of teacher behavior as measured on the linear cognition scales and cognition of teacher behavior as measured via a structured interview.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	.889**	.778**	.820**
Nonanalytical-Analytical	.669*	.829**	.787**
Personal Convenience-Children's Welfare	.872**	.474	.666**
Autocratic-Democratic	.711*	.649**	.667**
Harsh-Kindly	.689*	.603*	.576**
Stereotyped-Original	.932**	.823**	.863**
Inflexible-Adaptable	-.063	.756**	.558**
Aprofessional-Professional	.878**	.881**	.874**
Circumventor-Conformer	-.055	-.357	-.068
Insecure-Secure	.934**	.749**	.825**
Dissatisfied-Satisfied	.906**	.808**	.847**

* = .05 level

** = .01 level

variables ten and eleven, and the behavior variable seven--inflexible/adaptable--in the male group, dependent variables twenty-two and twenty-three.

The absence of significant correlation among the variables described above indicates that little or no consistency was present in the responses given by intern teachers in answer to queries about what they believed the typical behavior of most teachers to be on these selected variables of behavior. On most of the variables, however, the responses of the intern teachers tend to indicate that a high degree of consistency is present, as measured with the Linear Cognition Scales and through a structured interview, in their beliefs regarding the behavior of most teachers.

The following outline lists the significant correlations found in testing sub-hypothesis eight.

I. Significant Relationships Between the Cognition of Teacher Behavior as Measured on a Linear Scale and Cognition of Teacher Behavior as Measured via a Structured Interview.

   A. Those greater than or equal to the .01 level of significance.

      1) male group

         a) variables 4/5; cognition of dull-stimulating behavior

         b) variables 10/11; cognition of personal convenience-children's welfare behavior

         c) variables 19/20; cognition of stereotyped-original behavior

         d) variables 25/26; cognition of aprofessional-professional behavior

e) variables 31/32; cognition of insecure-secure behavior

f) variables 34/35; cognition of dissatisfied-satisfied behavior

2) female group

a) variables 4/5; cognition of dull-stimulating behavior

b) variables 7/8; cognition of nonanalytical-analytical behavior

c) variables 13/14; cognition of autocratic-democratic behavior

d) variables 19/20; cognition of stereotyped-original behavior

e) variables 22/23; cognition of inflexible-adaptable behavior

f) variables 25/26; cognition of aprofessional-professional behavior

g) variables 31/32; cognition of insecure-secure behavior

h) variables 34/35; cognition of dissatisfied-satisfied behavior

3) total group

a) variables 4/5; cognition of dull-stimulating behavior

b) variables 7/8; cognition of nonanalytical-analytical behavior

c) variables 10/11; cognition of personal convenience-children's welfare behavior

d) variables 13/14; cognition of autocratic-democratic behavior

e) variables 16/17; cognition of harsh-kindly behavior

f) variables 19/20; cognition of stereotyped-original behavior

g) variables 22/23; cognition of inflexible-adaptable behavior

h) variables 25/26; cognition of aprofessional-professional behavior

i) variables 31/32; cognition of insecure-secure behavior

j) variables 34/35; cognition of dissatisfied-satisfied behavior

B. Those greater than or equal to the .05 level of significance.

1) male group

a) variables 7/8; cognition of nonanalytical-analytical behavior

b) variables 13/14; cognition of autocratic-democratic behavior

c) variables 16/17; cognition of harsh-kindly behavior

2) female group

a) variables 16/17; cognition of harsh-kindly behavior

3) total group

a) none

The great profusion of significant correlations between the measures of cognition indicates that the intern teachers examined in this study were very consistent in their responses regarding their beliefs about the behavior of most teachers. This consistency may be accounted for in two ways: 1) the intern teachers sampled have demonstrated a facility for being adaptable, hence, they were able to give consistent responses to the queries designed to assess cognition of teacher behavior via the two methods described. 2) through a refining

process of screening interviews, academic failure and a lack of competence for teaching, this group of intern teachers tends to be a rather homogeneous group. The consistency of response to the measures of cognition may emanate from the homogeneity of the group. Better yet, a combination of points one and two might best explain the profusion of significant correlations found between the two measures of intern teacher cognition of the behavior of most teachers.

Question XIV:

Question number fourteen asked:

> To what extent is there a significant relationship between the characteristics of the observed behavior of intern teachers, in regard to the selected variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers as measured on a linear scale?

In order to test question fourteen the scores obtained from the Intern Teacher Behavior Scale and the scores obtained from the Linear Cognition Scales were correlated on each of the eleven selected variables of teacher behavior. The specific variables correlated were the following dependent variables: 3/4, 6/7, 9/10, 12/13, 15/16, 18/19, 21/22, 24/25, 27/28, 30/31, and 33/34. Table 4.18 lists these coefficients of correlation. Antithetical to the great profusion of significant correlations found between the two measures of intern teacher cognition, a conspicuous lack of correlation was found when comparing the observed behavior of the intern teachers examined with their cognition of the behavior of most teachers

Table 4.18. Coefficients of correlation between observed behavior and the intern teacher's cognition of most teachers behavior as measured via a linear scale.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	.276	.429	.419*
Nonanalytical-Analytical	.009	.459	.332
Personal Convenience-Children's Welfare	-.177	.039	-.091
Autocratic-Democratic	.258	.189	.093
Harsh-Kindly	.075	.447	.199
Stereotyped-Original	-.064	.135	.013
Inflexible-Adaptable	.212	.201	.201
Aprofessional-Professional	-.278	.005	-.152
Circumbentor-Conformer	.096	-.161	-.130
Insecure-Secure	.546	-.209	.163
Dissatisfied-Satisfied	-.176	-.151	-.186

* = .05 level
** = .01 level

as measured on a linear scale. This great difference would indicate that intern teachers have one set of precepts for their verbal responses regarding teaching behavior and another set of precepts with which they govern their own behavior. Neither of these sets of precepts are very much alike.

As was seen in examining Table 4.18, the coefficients of correlation show that one significant relationship is present, that being in the total group, between dependent variables three and four. This coefficient is significant beyond the .05 level, however, due to the probabilities of chance at this level, this coefficient of correlation is not considered as being significant when viewed with the other coefficients shown on Table 4.18. However, it would seem appropriate to examine this difference between cognition of behavior and overt behavior further in order to better understand this phenomenon.

Question XV:

Question number fifteen asked:

> To what extent is there a significant relationship between the characteristics of observed behavior of intern teachers, in regard to the selected variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers as measured in a structured interview?

In order to test question fifteen the scores obtained from the Intern Teacher Behavior Scale and the scores obtained from the structured interview were correlated on each of the eleven selected variables of teacher behavior. The specific variables correlated were the following dependent variables:

3/5, 6/8, 9/11, 12/14, 15/17, 18/20, 21/23, 24/26, 27/29, 30/32, and 33/35. Table 4.19 lists these coefficients of correlation.

Table 4.19. Coefficients of correlation between observed behavior and the intern teacher's cognition of most teachers behavior as measured via a structured interview.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	.206	.584*	.467*
Nonanalytical-Analytical	.189	.528*	.427*
Personal Convenience-Children's Welfare	-.337	.093	-.076
Autocratic-Democratic	.306	.372	.252
Harsh-Kindly	.261	.633**	.436*
Stereotyped-Original	-.227	.289	.017
Inflexible-Adaptable	.395	.419	.383
Aprofessional-Professional	-.203	.206	.025
Circumventor-Conformer	-.114	.122	.139
Insecure-Secure	.394	-.178	.160
Dissatisfied-Satisfied	.176	.014	.062

*= .05 level
**= .01 level

In testing question fifteen significant correlations were found on three of the selected variables of teacher behavior. These behavioral variables are: 1) dull-stimulating behavior; 2) nonanalytical-analytical behavior; and 3) harsh-kindly behavior.

On the dull-stimulating dimension, dependent variables three and five demonstrate a significant relationship in both the female and total groups. These significant correlations are greater than or equal to the .05 level of significance.

The characteristics associated with nonanalytical-analytical behavior, dependent variables six and eight, show that a significant correlation is present at greater than or equal to the .05 level in both the female and total groups. Dependent variables fifteen and seventeen, harsh-kindly behavior, show correlations which are greater than or equal to the .01 level in the female group and .05 in the total group.

The coefficients of correlation in the male group for the three dimensions of behavior just discussed do not indicate that the relationships between these variables are large enough to be considered significant.

The following outline lists the significant coefficients of correlation found in testing question fifteen.

I. Significant Relationships Between Observed Behavior and Cognition of Teacher Behavior, as Measured via a Structured Interview.

   A. Those greater than or equal to the .01 level of significance.

      1) male group

a) none

2) female group

a) variables 15/17; observed behavior/ cognition on interview scale: harsh-kindly behavior

3) total group

a) none

B. Those greater than or equal to the .05 level of significance.

1) male group

a) none

2) female group

a) variables 3/5; observed behavior/ cognition on interview scale: dull-stimulating behavior

b) variables 6/8; observed behavior/ cognition on interview scale: nonanalytical-analytical behavior

3) total group

a) variables 3/5; observed behavior/ cognition on interview scale: dull-stimulating behavior

b) variables 6/8; observed behavior/ cognition on interview scale: nonanalytical-analytical behavior

c) variables 15/17; observed behavior/ cognition on interview scale: harsh-kindly behavior.

The relationship between observed behavior and cognition of teacher behavior is only slightly better when measured via a structured interview than it is when measured via a linear scale. Again, as in the preceding question, students appear to profess one set of precepts but behave by another set of

precepts. Only in those variables demonstrating an immediacy with the process of teaching was any consistency shown between these two dimensions. (The term "immediacy" is meant to suggest that because of the affect of one's overt behavior, in regard to the significant variables, the response(s) of a class would be obvious and in accord with the behavior demonstrated by the intern teacher. The other variables, notwithstanding, also affect the behavior of a class, but probably not as quickly nor to the same degree as do those variables which were found to be significant.) However, with the exception of the harsh-kindly variable significant at greater than the .01 level in the female group, all of the other relationships were found to be significant at only slightly greater than the .05 level. Correlations of this nature do not suggest the presence of permanent and lasting relationships among those variables found to be significant.

Question XVI:

Question number sixteen asked:

> To what extent are there significant relationships between the observed behavior of intern teachers among the selected variables of teacher behavior?

In order to test question sixteen, intercorrelations among all eleven selected variables of teacher behavior were computed. Because of the number of coefficients of correlation computed in each matrix, these measures are reported on three separate tables--male, female, and total. A fourth table follows showing a recapitulation of the significant coefficients of correlation at the .05 and the .01 levels of significance.

To indicate the level and group of the significant correlation the following reporting system is used. Significant correlations found to be greater than or equal the .05 level of significance are indicated using lower case letters specifying the group in which the significant correlation was found; that is m, f, t, to indicate male, female, and total groups.

Significant correlations found to be greater than or equal to the .01 level of significance are indicated using upper case letters specifying the group in which the significant correlation was found; that is M, F, T, to indicate male, female, and total groups.

The coefficients of intercorrelation computed among the characteristics of observed intern teacher behavior on the eleven selected variables of teacher behavior are listed below.

From the examination of Tables 4.20, 4.21, and 4.22, it is readily apparent that many facets of the observed intern teacher behavior correlate significantly with other facets of the observed intern teacher behavior among the eleven selected variables of teacher behavior.

Table 4.20, the male group, reports thirteen significant coefficients of correlation at greater than or equal to the .05 level and eleven significant coefficients of correlation at greater than or equal to the .01 level of significance. The following outline lists a description of the significant correlations found among the male group when studying question sixteen.

Table 4.20. Intercorrelation matris: observed behavior--male group.

Variable	1	2	3	4	5	6	7	8	9	10
2	.506									
3	.674*	.801**								
4	.500	.740*	.824**							
5	.559	.737*	.923**	.902**						
6	.707*	.453	.754*	.801**	.844**					
7	.480	.533	.776*	.693*	.888**	.860**				
8	.776*	.227	.670*	.511	.520	.722*	.449			
9	-.224	-.173	-.149	.108	-.165	.255	-.380	.114		
10	.051	.553	.442	.390	.514	.275	.609	-.052	-.283	
11	.217	.673*	.808**	.676*	.738*	.645	.830**	.085	-.380	.814**

* = .05 level
** = .01 level

Table 4.31. Intercorrelation matrix: observed behavior, female group

Table 4.21. Intercorrelation matrix: observed behavior--female group.

Variable	1	2	3	4	5	6	7	8	9	10
2	.759**									
3	.676**	.644**								
4	.507*	.380	.314							
5	.666**	.622**	.608**	.798**						
6	.570*	.528*	.458	.670**	.840**					
7	.754**	.674**	.514*	.802**	.861**	.725**				
8	.391	.508*	.685**	.584*	.649**	.469	.646**			
9	.159	.409	.197	.348	.405	.396	.336	.489*		
10	.790**	.583*	.727**	.394	.611**	.416	.648**	.524*	.088	
11	.419	.387	.553*	.425	.455	.149	.574**	.635**	.089	.763**

* = .05 level
** = .01 level

Table 4.11. Intercorrelation matrix: observed behavior--total group.

Variable	1	2	3	4	5	6	7	8	9	10
2	.676**									
3	.708**	.704**								
4	.566**	.519**	.630**							
5	.648**	.661**	.803**	.866**						
6	.668**	.509**	.665**	.794**	.866**					
7	.668**	.625**	.678**	.767**	.882**	.807**				
8	.571**	.417*	.690**	.561**	.599**	.597**	.580**			
9	.093	.220	.153	.360	.225	.266	.102	.365		
10	.498**	.570**	.639**	.510**	.625**	.499**	.667**	.288	.031	
11	.381	.524**	.620**	.588**	.646**	.462*	.725**	.406*	-.039	.807**

* = .05 level
** = .01 level

Table 4.23. Recapitulation of significant correlations: observed behavior--all groups.

Variable	1	2	3	4	5	6	7	8	9	10
2	FT									
3	mFT	MFT								
4	fT	m T	M T							
5	FT	mFT	MFT	MFT						
6	mFT	fT	m T	MFT	MFT					
7	FT	FT	mfT	mFT	MFT	MFT				
8	m T	ft	mFT	fT	fT	m T	FT			
9								f		
10	FT	fT	FT	T	FT	T	FT	f		
11		m T	MfT	m T	m T	t	MFT	Ft		MFT

m, f, t = .05 level
M, F, T = .01 level

I. Significant Intercorrelations Among Observed Behavior on the Selected Variables of Teacher Behavior.

A. Those greater than or equal to the .01 level of significance.

1) nonanalytical-analytical/personal convenience/children's welfare behavior

2) personal convenience/children's welfare/ autocratic-democratic behavior

3) personal convenience-children's welfare/ harsh-kindly behavior

4) personal convenience-children's welfare/ dissatisfied-satisfied behavior

5) autocratic-democratic/harsh-kindly behavior

6) autocratic-democratic/stereotyped-original behavior

7) harsh-kindly/stereotyped-original behavior

8) harsh-kindly/inflexible-adaptable behavior

9) stereotyped-original/inflexible-adaptable behavior

10) inflexible-adaptable/dissatisfied-satisfied behavior

11) insecure-secure/dissatisfied-satisfied behavior.

B. Those greater than or equal to the .05 level of significance.

1) dull-stimulating/personal convenience-children's welfare behavior

2) dull-stimulating/stereotyped-original behavior

3) dull-stimulating/aprofessional-professional behavior

4) nonanalytical-analytical/autocratic-democratic behavior

5) nonanalytical-analytical/harsh-kingly behavior

6) nonanalytical-analytical/dissatisfied satisfied behavior

7) personal convenience-children's welfare/ stereotyped-original behavior

8) personal convenience-children's welfare/ inflexible-adaptable behavior

9) personal convenience-children's welfare/ aprofessional-professional behavior

10) autocratic-democratic/inflexible-adaptable behavior

11) autocratic-democratic/dissatisfied-satisfied behavior

12) harsh-kindly/dissatisfied-satisfied behavior

13) stereotyped-original/aprofessional-professional behavior

Significant coefficients of intercorrelation are found within the male group on all but one of the selected variables of teacher behavior. The behavioral variable described as the conformer-circumventor dimension indicates that no significant relationship exists between this facet of intern teacher behavior and the other ten selected variables of teacher behavior.

A second facet, the secure-insecure dimension, shows that only one significant relationship exists between this variable and the other selected variables. The secure-insecure dimension shows a significant relationship at the .01 level with the satisfied-dissatisfied dimension. The remaining variables of observed behavior demonstrate varying degrees

of significant intercorrelation. For clarification, a recapitulation of all the significant intercorrelations within the male group are reported on Table 4.23.

Table 4.21, the female group, reports ten significant coefficients of correlation at greater than or equal to the .05 level and twenty-four significant coefficients of correlation at greater than or equal to the .01 level of significance. The following outline lists a description of the significant correlations found among the female group when testing sub-hypothesis eleven.

I. Significant Intercorrelations Among Observed Behavior on the Selected Variables of Teacher Behavior.

   A. Those greater than or equal to the .01 level of significance.

      1) dull-stimulating/nonanalytical-analytical behavior

      2) dull-stimulating/personal convenience-children's welfare behavior

      3) dull-stimulating/harsh-kindly behavior

      4) dull-stimulating/inflexible-adaptable behavior

      5) dull-stimulating/insecure-secure behavior

      6) nonanalytical-analytical/personal convenience-children's welfare behavior

      7) nonanalytical-analytical/harsh-kindly behavior

      8) nonanalytical-analytical/inflexible-adaptable behavior

      9) personal convenience-children's welfare/harsh-kindly behavior

10) personal convenience-children's welfare/ aprofessional-professional behavior

11) personal convenience-children's welfare/ insecure-secure behavior

12) autocratic-democratic/harsh-kindly behavior

13) autocratic-democratic/stereotyped-original behavior

14) autocratic-democratic/inflexible-adaptable behavior

15) harsh-kindly/stereotyped-original behavior

16) harsh-kindly/inflexible-adaptable behavior

17) harsh-kindly/aprofessional-professional behavior

18) harsh-kindly/insecure-secure behavior

19) stereotyped-original/inflexible-adaptable behavior

20) inflexible-adaptable/aprofessional-professional behavior

21) inflexible-adaptable/insecure-secure behavior

22) inflexible-adaptable/dissatisfied-satisfied behavior

23) aprofessional-professional/dissatisfied-satisfied behavior

24) insecure-secure/dissatisfied-satisfied behavior

B. Those greater than or equal to the .05 level of significance.

1) dull-stimulating/autocratic-democratic behavior

2) dull-stimulating/stereotyped-original behavior

3) nonanalytical-analytical/stereotyped-original behavior

4) nonanalytical-analytical/aprofessional-professional behavior

5) nonanalytical-analytical/insecure-secure behavior

6) personal convenience-children's welfare/inflexible-adaptable behavior

7) personal convenience-children's welfare/dissatisfied-satisfied behavior

8) autocratic-democratic/aprofessional-professional behavior

9) aprofessional-professional/circumventor conformer behavior

10) aprofessional-professional/insecure-secure behavior

Significant coefficients of intercorrelation are found within the female group on all of the selected variables of teacher behavior. The behavioral variable described as the circumventor-conformer dimension indicates a significant correlation beyond the .05 level with the characteristics described as aprofessional-professional behavior. This is the only significant correlation between the characteristics of circumventor-conformer behavior and any of the other selected variables of teacher behavior.

A noticeable lack of significant correlation within the female group is found on variable eleven, dissatisfied-satisfied behavior. Among the other variables, with the exception of variable nine, circumventor-conformer behavior, the female group tends to demonstrate a significant relationship.

On variable eleven, however, only four of the correlations are significant. Of these four significant correlations, three are greater than the .01 level of significance.

A recapitulation of all the significant intercorrelations within the female group are reported on Table 4.23.

Table 4.22, the total group, shows three significant coefficients of correlation at greater than or equal to the .05 level of significance. At the .01 level of significance, forty out of the total of fifty-five coefficients of correlation are significant. The following outline lists a description of the significant correlations found among the total group when testing question sixteen.

I. Significant Intercorrelations Among Observed Behavior on the Selected Variables of Teacher Behavior.

A. Those greater than or equal to the .01 level of significance.

1) dull-stimulating/nonanalytical-analytical behavior

2) dull-stimulating/personal convenience-children's welfare behavior

3) dull-stimulating/autocratic-democratic behavior

4) dull-stimulating/harsh-kindly behavior

5) dull-stimulating/stereotyped-original behavior

6) dull-stimulating/inflexible-adaptable behavior

7) dull-stimulating/aprofessional-professional behavior

8) dull-stimulating/insecure-secure behavior

9) nonanalytical-analytical/personal convenience-children's welfare behavior

10) nonanalytical-analytical/autocratic-democratic behavior

11) nonanalytical-analytical/harsh-kindly behavior

12) nonanalytical-analytical/stereotyped-original behavior

13) nonanalytical-analytical/inflexible-adaptable behavior

14) nonanalytical-analytical/insecure-secure behavior

15) nonanalytical-analytical/dissatisfied-satisfied behavior

16) personal convenience-children's welfare/autocratic-democratic behavior

17) personal convenience-children's welfare/harsh-kindly behavior

18) personal convenience-children's welfare/stereotyped-original behavior

19) personal convenience-children's welfare/inflexible-adaptable behavior

20) personal convenience-children's welfare/aprofessional-professional behavior

21) personal convenience-children's welfare/insecure-secure behavior

22) personal convenience-children's welfare/dissatisfied-satisfied behavior

23) autocratic-democratic/harsh-kindly behavior

24) autocratic-democratic/stereotyped-original behavior

25) autocratic-democratic/inflexible-adaptable behavior

26) autocratic-democratic/aprofessional-professional behavior

27) autocratic-democratic/insecure-secure behavior

28) autocratic-democratic/dissatisfied-satisfied behavior

29) harsh-kindly/stereotyped-original behavior

30) harsh-kindly/inflexible-adaptable behavior

31) harsh-kindly/aprofessional-professional behavior

32) harsh-kindly/insecure-secure behavior

33) harsh-kindly/dissatisfied-satisfied behavior

34) stereotyped-original/inflexible-adaptable behavior

35) stereotyped-original/aprofessional professional behavior

36) stereotyped-original/insecure-secure behavior

37) inflexible-adaptable/aprofessional-professional behavior

38) inflexible-adaptable/insecure-secure behavior

39) inflexible-adaptable/dissatisfied-satisfied behavior

40) insecure-secure/dissatisfied-satisfied behavior

B. Those greater than or equal to the .05 level of significance.

1) nonanalytical-analytical/aprofessional-professional behavior

2) stereotyped-original/dissatisfied-satisfied behavior

3) aprofessional-professional/dissatisfied-satisfied behavior

Significant coefficients of intercorrelation are found within the total group on all but one of the selected variables of teacher behavior. Behavioral variable nine--circumventor/conformer--is the only dimension upon which the total group does not indicate a significant relationship with the other selected variables studied. With the exception of variable nine the other variables of observed behavior demonstrate some significant degree of correlation. A recapitulation of all the significant intercorrelations within the total group are listed on Table 4.23.

As is shown in the analysis of Tables 4.20, 4.21, 4.22, and 4.23, the observed behavior of intern teachers, in regard to the selected variables of teacher behavior, demonstrates with few exceptions a high degree of correlation. A greater degree of correlation was found among the female and total groups than was apparent in the male group.

Variable nine--circumventor/conformer behavior--is significant because of the lack of correlation found between this variable and the others examined. Only in one instance does this variable demonstrate any significant correlation, that being within the female group. This analysis of the data has revealed that a high degree of interrelation was present among the characteristics of the observed behavior of the intern teachers, in regard to the selected variables of teacher behavior. The observed behavior was assessed via the Intern Teacher Behavior Scale which was administered to each of the supervisors of the intern teachers examined.

Initially, it would appear that the intern teachers tend to demonstrate a rather consistent pattern of teaching behavior, and are in general much alike in the manner in which they teach. However, looking at the antithetical side of this analysis, supervisors of intern teachers tend to see their intern teachers in a favorable light, demonstrating behavior which is characteristic of the positive side of the behavioral continua. With few exceptions, the evaluations of the intern teachers, as shown in Appendix "B", report behavior exemplifying those characteristics which would commonly be accepted as being positive in nature. This characteristic of evaluating toward positive ends was common to all supervisors responding on the Intern Teacher Behavior Scale.

Under the above circumstances, it is impossible to arrive at a justifiable conclusion regarding the interrelatedness of the characteristics of the observed behavior of the intern teachers studied. In order to accurately assess these relationships, further study is necessary.

Question XVII:

Question number seventeen asked:

> To what extent are there significant relationships between the intern teacher's cognition of most teacher behavior, as measured on a linear scale, among the selected variables of teacher behavior?

In order to test question seventeen, intercorrelations between all of the eleven selected variables of teacher

behavior were computed. Because of the number of coefficients of correlation computed in each matrix, these measures are reported on three separate tables--male, female, and total. The fourth table in this series gives a recapitulation of the significant coefficients of correlation at the .05 and the .01 levels of significance. The same system of indicating the significant coefficients of correlation is followed as was described in question sixteen. The coefficients of correlation computed in studying question seventeen are as follows (see pages 133-136).

An examination of Tables 4.24, 4.25, 4.26, and 4.27, reveals a sharp contrast to the preceding Tables just discussed. It is quickly evident that only a few of the selected variables of teacher behavior demonstrate any degree of significant relationship.

Table 4.24, the male group, reports that none of the coefficients of the intercorrelation are significant at or beyond the .01 level of significance. At the .05 level, however, there are six coefficients of correlation which are large enough to be significant. The following outline lists these significant correlations.

I. Significant Intercorrelations Among Cognition of Teacher Behavior, as Measured on a Linear Scale; Male Group.

   A. Those greater than or equal to the .01 level of significance.

      1) none

   B. Those greater than or equal to the .05 level of significance.

Table 4.24. Intercorrelation matrix: cognition of behavior--linear scale (male group).

Variable	1	2	3	4	5	6	7	8	9	10
2	.310									
3	.273	.462								
4	.470	.341	.062							
5	.602	.432	.382	.718*						
6	.629	.523	.613	.638	.644					
7	-.232	.098	.098	-.158	-.324	-.163				
8	.328	.296	.756*	.102	.521	.695*	.064			
9	-.585	-.487	.000	-.652	-.689*	-.647	.606	-.226		
10	.309	-.081	.105	.019	.443	.170	.208	.610	-.094	
11	.713*	.376	.627*	.000	.311	.458	.213	.534	-.078	.304

* = .05 level
** = .01 level

Table 4.25. Intercorrelation matrix: cognition of behavior--linear scale (female group).

Variable	1	2	3	4	5	6	7	8	9	10
2	.218									
3	.487*	.461								
4	.152	.152	.205							
5	.340	.102	.407	.141						
6	.025	.415	.135	.686**	.226					
7	.414	-.038	.137	.445	.520*	.471				
8	.095	.250	.522*	.264	.267	.334	.118			
9	.083	-.021	-.173	-.075	-.261	.043	-.054	-.107		
10	-.189	-.150	-.105	.482*	.288	.561*	.339	.441	.110	
11	.240	.473	.233	.377	.232	.510*	.478	.413	.145	.467

* = .05 level
** = .01 level

Table 4.26. Intercorrelation matrix: cognition of behavior--linear scale (total group).

Variable	1	2	3	4	5	6	7	8	9	10
2	.266									
3	.347	.433*								
4	.206	.183	.155							
5	.374	.172	.394	.322						
6	.227	.434*	.339	.671**	.367					
7	.147	-.037	.130	.343	.358	.326				
8	.118	.229	.625**	.233	.371	.473*	.147			
9	-.262	-.176	-.042	-.098	-.232	-.086	.186	.012		
10	.029	-.125	.048	.299	.344	.393*	.278	.510**	.052	
11	.385	.417*	.417*	.259	.269	.494*	.406*	.474*	.126	.393*

* = .05 level
** = .01 level

Table 4.27. Recapitulation of significant correlations: cognition of behavior--linear scale (all groups).

Variable	1	2	3	4	5	6	7	8	9	10
2										
3	f	t								
4										
5				m						
6		t		FT						
7					f					
8			mfT			m t				
9					-m					
10				f		ft		T		
11	m	t	m t			ft	t	t		t

m, f, t = .05 level
M, F, T = .01 level

1) dull-stimulating/dissatisfied-satisfied behavior

2) personal convenience-children's welfare/ aprofessional-professional behavior

3) personal convenience-children's welfare/ dissatisfied-satisfied behavior

4) autocratic-democratic/harsh-kindly behavior

5) negative: harsh-kindly/circumventor-conformer behavior

6) stereotyped-original/aprofessional-professional behavior

The significant coefficients of correlation on Table 4.24 are found among five different variables of teacher behavior. Only the personal convenience-children's welfare dimension correlates significantly with more than one of the other selected variables. However, unique to this group of correlations is the negative correlation found between the characteristics of harsh-kindly behavior and the characteristics of circumventor-conformer behavior. With the exception of two other correlations, this is the only significant negative correlation found in this study.

A diagrammatic presentation of the six significant coefficients of correlation is found on Table 4.27.

Table 4.25, the female group, indicates six coefficients of correlation which are significant at or beyond the .05 level. Only one coefficient of correlation was found to be significant at or beyond the .01 level. The following outline lists a description of the significant correlations found among the female group when testing question seventeen.

I. Significant Intercorrelations Among Cognition of Teacher Behavior, as Measured on a Linear Scale; Female Group.

A. Those greater than or equal to the .01 level of significance.

1) autocratic-democratic/stereotyped-original behavior

B. Those greater than or equal to the .05 level of significance.

1) dull-stimulating/personal convenience-children's welfare behavior

2) personal convenience-children's welfare/aprofessional-professional behavior

3) autocratic-democratic/insecure-secure behavior

4) harsh-kindly/inflexible-adaptable behavior

5) stereotyped-original/insecure-secure behavior

6) stereotyped-original/dissatisfied-satisfied behavior

Much like the male group, the coefficients of correlation demonstrating the inter-relationship among the selected variables of teacher behavior are scattered and tend not to indicate any regularity within the relationships between these variables. However, two of the selected variables, the personal convenience-children's welfare dimension and the stereotyped-original dimension, show significant correlations with two of the other variables: items 1 and 2, and 4 and 5, in section B above.

Again, in summary, the significant coefficients of correlation are represented on Table 4.27 showing the scattered relationships that are present among the selected variables.

In examining Table 4.26, it is seen that there are ten coefficients of correlation which are significant at or beyond the .05 level of significance. In addition, three coefficients are present which are equal to or greater than the .01 level of significance. An outline of these significant correlations is listed below.

I. Significant Intercorrelations Among Cognition of Teacher Behavior, as Measured on a Linear Scale; Total Group.

   A. Those greater than or equal to the .01 level of signigicance.

      1) personal convenience-children's welfare/ aprofessional-professional behavior

      2) autocratic-democratic/stereotyped-original behavior

      3) aprofessional-professional/insecure-secure behavior

   B. Those greater than or equal to the .05 level of significance.

      1) nonanalytical-analytical/personal convenience-children's welfare behavior

      2) nonanalytical-analytical/stereotyped-original behavior

      3) nonanalytical-analytical/dissatisfied-satisfied behavior

      4) personal convenience-children's welfare/ dissatisfied-satisfied behavior

      5) stereotyped-original/aprofessional-professional behavior

      6) stereotyped-original/insecure-secure behavior

      7) stereotyped-original/dissatisfied-satisfied behavior

8) inflexible-adaptable/dissatisfied-satisfied behavior

9) aprofessional-professional/dissatisfied-satisfied behavior

10) insecure-secure/dissatisfied-satisfied behavior

Unlike the male and female groups studied in testing question seventeen, the total group shows several coefficients of correlation which are significant. Among those correlations which are significant at or beyond the .01 level no apparent pattern of relationship is present. However, at the .05 level six of the ten signigicant correlations are found on the dissatisfied-satisfied dimension of the selected variables. In examining those other variables with which the dissatistied-satisfied dimension correlates significantly, it is not surprising that this relationship exists. The significant relationships just described are reported in the recapitulation of significant correlations found on Table 4.27

As is shown in the analysis of Tables 4.24, 4.25, 4.26, and 4.27, an intern teacher's cognition of the behavior of most teachers on one of the selected variables of teacher behavior and his cognition of the behavior of most teachers on the other selected variables of teacher behavior does demonstrate several significant relationships. Most important among the significant correlations is the relationship which is indicated, in the total group, between the characteristics of dissatisfied-satisfied behavior, as measured on the Linear Cognition Scales, and the other selected variables. No other variable in any

group correlates significantly with the other variables more than does the dissatisfied-satisfied dimension. In this marked contrast to the many significant intercorrelations found among the characteristics of observed behavior, the interrelations among the intern teacher's cognition of most teachers behavior, as measured on a linear scale, demonstrates only a scattering of signigicant correlations. Further, throughout this study it has been the linear scale dimension which has exhibited the fewest number of signigicant correlations, again this pattern is true.

The reasons for this lack of significant correlation are rather vague and obscure, however, any or all of the following causes may have affected this dimension:

1) Ambivalence between precepts for guiding teaching behavior when indicating one's response in pencil and paper form.

2) A lack of understanding of the task to be performed.

3) The ineptness of the instrument selected to assess this dimension

4) The inaccuracy of the scoring techniques.

Whatever the cause, the interrelations among the variables of teacher behavior, as measured on a linear scale, are few and without much meaning to this particular question.

Question XVIII:

Question number eighteen asked:

> To what extent are there significant relationships between the intern teacher's cognition of most teacher behavior, as measured in a structured interview, among the selected variables of teacher behavior?

To test question eighteen, intercorrelations between all of the eleven selected variables of teacher behavior were computed for all groups. Because of the number of coefficients of correlation computed in each matrix, these measures are reported on three separate tables--male, female, and total. A fourth table accompanies the three matrices giving a recapitulation of the significant correlations at the .05 and the .01 levels of significance. A method identical to that described in question sixteen is used to diagram the significant correlations.

The coefficients of correlation obtained in testing question eighteen are as follows (see pages 144-147).

An examination of Tables 4.28, 4.29, and 4.30 discloses many more significant correlations, on the interview variable in assessing cognition of behavior, than were found on Tables 4.24, 4.25, and 4.26 which report cognition of teacher behavior using the linear variable.

More specifically, Table 4.28, the male group, reports three coefficients of correlation which are significant beyond the .01 level and five coefficients which are equal to or greater than the .05 level of significance. The following outline lists a description of these significant correlations found among the male group when testing question eighteen.

I. Significant Intercorrelations Among Cognition of Teacher Behavior, as Measured in a Structured Interview.

   A. Those greater than or equal to the .01 level of significance.

Table 4.28. Intercorrelation matrix: cognition of behavior--interview (male group).

Variable	1	2	3	4	5	6	7	8	9	10
2	.450									
3	.413	.551								
4	.455	.389	.278							
5	.606	.669*	.463	.813**						
6	.642	.872**	.564	.683*	.890**					
7	.308	-.088	.122	.667*	.540	.326				
8	.350	.702*	.376	.293	.664	.653	.218			
9	-.340	-.227	-.295	.272	.226	-.262	.230	-.184		
10	.102	.186	-.028	-.115	.038	-.032	-.185	.617	.139	
11	.578	.502	.282	.000	.447	.481	-.057	.716*	-.587	.583

* = .05 level
** = .01 level

Table 4.29. Intercorrelation matrix: cognition of behavior--interview (female group).

Variable	1	2	3	4	5	6	7	8	9	10
2	.145									
3	.308	.578*								
4	-.073	.137	.346							
5	.000	.316	.567*	.615**						
6	.176	.445	.526*	.398	.307					
7	.070	.035	.130	.570*	.319	.605**				
8	-.120	.052	.081	.086	.111	.391	.634**			
9	-.072	-.107	-.086	-.484*	-.613**	-.080	-.215	-.030		
10	.296	-.023	.264	.453	.413	.478	.410	.508*	-.102	
11	-.144	.398	.227	.081	.224	.574*	.547*	.705**	.109	.561*

* = .05 level
** = .01 level

Table 4.30. Intercorrelation matrix: cognition of behavior--interview (total grouo).

Variable	1	2	3	4	5	6	7	8	9	10
2	.254									
3	.355	.557**								
4	.106	.212	.307							
5	.298	.457*	.510**	.672**						
6	.323	.570**	.527**	.509**	.555**					
7	.145	-.002	.123	.600**	.393*	.506**				
8	.031	.250	.197	.167	.346	.492*	.494*			
9	-.095	-.093	-.137	-.186	-.299	-.181	-.047	-.120		
10	-.108	.067	.130	.200	.223	.243	.176	.531*	.061	
11	.143	.414*	.243	.055	.310	.541**	.337	.711**	-.193	.553**

* = .05 level
** = .01 level

Table 4.31. Recapitulation of significant correlations: cognition of behavior--interview (all groups).

Variable	1	2	3	4	5	6	7	8	9	10
2										
3		fT								
4										
5		m t	fT	MFT						
6		M T	fT	m T	M T					
7				mfT	t	FT				
8		m				t	Ft			
9				-f	-F					
10								ft		
11		t				fT	f	mFT		fT

m, f, t = .05 level
M, F, T = .01 level

1) nonanalytical-analytical/stereotyped-original behavior

2) autocratic-democratic/harsh-kindly behavior

3) harsh-kindly/stereotyped-original behavior

B. Those greater than or equal to the .05 level of significance.

1) nonanalytical-analytical/harsh-kindly behavior

2) nonanalytical-analytical/aprofessional-professional behavior

3) autocratic-democratic/stereotyped-original behavior

4) autocratic-democratic/inflexible-adaptable behavior

5) aprofessional-professional/dissatisfied-satisfied behavior

It is shown in the above outline that two of the selected variables would appear to form a focal point for the intercorrelations which are considered significant. These variables are the nonanalytical-analytical dimension and the autocratic-democratic dimension. Correlating most often with these focal variables are the stereotyped-original and the harsh-kindly dimensions. The remaining dimensions which show significant correlations with the above dimensions are scattered throughout the matrix.

Table 4.29 reports the significant coefficients of correlation found among the female group when testing question eighteen. Five coefficients greater than or equal to the .01 level are shown while nine other coefficients of correlation

were found to be significant beyond the .05 level. The significant coefficients of correlation are outlined as follows:

I. Significant Intercorrelations Among Cognition of Teacher Behavior, as Measured in a Structured Interview.

A. Those greater than or equal to the .01 level of significance.

1) autocratic-democratic/harsh-kindly behavior

2) negative: harsh-kindly/circumventor-conformer behavior

3) stereotyped-original/inflexible-adaptable behavior

4) inflexible-adaptable/aprofessional-professional behavior

5) aprofessional-professional/dissatisfied-satisfied behavior

B. Those greater than or equal to the .05 level of significance.

1) nonanalytical-analytical/personal convenience-children's welfare behavior

2) personal convenience-children's welfare/harsh-kindly behavior

3) personal convenience-children's welfare/stereotyped-original behavior

4) autocratic-democratic/inflexible-adaptable behavior

5) negative: autocratic-democratic/circumventor-conformer behavior

6) stereotyped-original/dissatisfied-satisfied behavior

7) inflexible-adaptable/dissatisfied-satisfied behavior

8) aprofessional-professional/insecure-secure behavior

9) insecure-secure/dissatisfied-satisfied behavior

As is shown on the outline above, the most numerous significant correlations appear on the dissatisfied-satisfied dimension of the selected variables, tending to indicate that satisfaction in one's position correlates positively with other facets of teacher behavior.

It is also on Table 4.29, that the other two significant negative correlations are reported. In both of these correlations the dimension of circumventor-conformer behavior shows a definite negative correlation with the characteristics of harsh-kindly behavior and autocratic-democratic behavior. But for these two exceptions, the significant coefficients of correlation are fairly well scattered on the matrix for the female group.

On Table 4.30, the coefficients of the intercorrelation of the selected variables for the total group are reported. At or beyond the .01 level of significance twelve correlations are shown. At the .05 level six correlations were found to be significant. The following outline lists a description of the significant correlations:

I. Significant Intercorrelations Among Cognition of Teacher Behavior, as Measured in a Structured Interview.

A. Those greater than or equal to the .01 level of significance.

1) nonanalytical-analytical/personal convenience-children's welfare behavior

2) nonanalytical-analytical/stereotyped-original behavior

3) personal convenience-children's welfare/harsh-kindly behavior

4) personal convenience-children's welfare/stereotyped-original behavior

5) autocratic-democratic/stereotyped-original behavior

6) autocratic-democratic/harsh-kindly behavior

7) autocratic-democratic/inflexible-adaptable behavior

8) harsh-kindly/stereotyped-original behavior

9) stereotyped-original/inflexible-adaptable behavior

10) stereotyped-original/dissatisfied-satisfied behavior

11) aprofessional-professional/dissatisfied-satisfied behavior

12) insecure-secure/dissatisfied-satisfied behavior

B. Those greater than or equal to the .05 level of significance.

1) nonanalytical-analytical/harsh-kindly behavior

2) nonanalytical-analytical/dissatisfied-satisfied behavior

3) harsh-kindly/inflexible-adaptable behavior

4) stereotyped-original/aprofessional-professional behavior

5) inflexible-adaptable/aprofessional-professional behavior

6) aprofessional-professional/insecure-secure behavior

The significant coefficients of correlation tend to be somewhat scattered among the variables for the total group. There is, however, a tendency for the correlations to cluster around two particular variables: the autocratic-democratic dimension and the dissatisfied-satisfied dimension. A major difference is also present in Table 4.30; the total number of significant correlations at or beyond the .01 level are exactly twice those found at the .05 level. This was not the case on Tables 4.28 and 4.29 where the significant correlations equal to or greater than the .01 level were in the minority.

The interview method for assessing cognition of teacher behavior appears to be more successful than the linear scale, although neither demonstrated an overwhelming success.

From evaluating the two methods selected for assessing cognition of most teachers' behavior among the selected variables of teacher behavior, it may be concluded that intern teachers are more inclined to reveal their true beliefs regarding teacher behavior through the medium of an interview than they are when marking a point on a linear scale.

Summation of the Significant Data

A review of Tables 4.4 through 4.19 discloses many coefficients of correlation that were found to be significant, among the selected variables of teacher behavior and the selected constituents used to examine this problem.

Table 4.32 reports a diagrammatic enumeration of these significant correlations, beyond the .01 level, educed from the coefficients computed in testing question three through fifteen. Table 4.33 reports a diagrammatic enumeration of the significant coefficients of correlation which are greater than or equal to the .05 level of significance on Tables 4.4 through 4.19.

Reported on Table 4.32 are the two selected variables of teacher behavior which correlate significantly at or beyond the .01 level of significance with more than one of the selected constituents used in examining this problem. The following outline enucleates these significant correlations.

I. Multi-dimensional correlations greater than or equal to the .01 level of significance.

A. Autocratic-Democratic Dimension

1) female group

a) the characteristics of critical practicality and observed behavior--Table 4.8

b) intern teacher cognition of most teachers' behavior, linear scale, and intern teacher cognition of most teachers' behavior, linear scales--Table 4.11

c) the characteristics of authoritarian personality and intern teacher cognition of most teachers' behavior, structured interview--Table 4.15

d) intern teacher cognition of most teachers' behavior, linear scales, and intern teacher cognition of most teachers' behavior, structured interview--Table 4.17

Table 4.32. Diagrammatic enumeration of significant correlations at the .01 level among the selected variables of teacher behavior and the selected constituents examined in this study.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating	*	*	*
Nonanalytical-Analytical		*	*
Personal Convenience-Children's Welfare	*		*
Autocratic-Democratic		2	*
Harsh-Kindly		*	*
Stereotyped-Original	*	*	*
Inflexible-Adaptable		4	3
Aprofessional-Professional	*	*	*
Circumbentor-Conformer			
Insecure-Secure	*	*	*
Dissatisfied-Satisfied	*	*	*

* = one significant correlation which is greater than or equal to the .01 level of significance.

Table 4.33. Diagrammatic enumeration of significant correlations at the .05 level among the selected variables of teacher behavior and the selected constituents examined in this study.

Selected Behavior Variable	Male	Female	Total
Dull-Stimulating		*	2
Nonanalytical-Analytical	2	*	*
Personal Convenience-Children's Welfare		*	
Autocratic-Democratic	*		
Harsh-Kindly	*	*	*
Stereotyped-Original			*
Inflexible-Adaptable			*
Aprofessional-Professional		*	
Circumbentor-Conformer	*		
Insecure-Secure			
Dissatisfied-Satisfied			2

* = one significant correlation which is greater than or equal to the .05 level of significance.

2) total group

a) the characteristics of authoritarian personality and intern teacher cognition of most teachers' behavior linear scales--Table 4.11

b) the characteristics of authoritarian personality and intern teacher cognition of most teachers' behavior, structured interview--Table 4.15

c) intern teacher cognition of most teachers' behavior, linear scales, and intern teacher cognition of most teachers' behavior, structured interview--Table 4.17

The outline above discloses that with one exception--sub-point "a", female group--the significant multi-dimensional correlations are found among identical variables in the female and total groups. This would tend to suggest that although the coefficients of correlation in the male group were not large enough with an N of nine to indicate a significant relationship, at or beyond the .01 level, they were large enough to produce a coefficient of correlation in the total group which was significant at or beyond the .01 level.

Table 4.33 reports three selected variables of teacher behavior which correlate significantly, at or beyond the .05 level of significance, with more than one of the selected constituents used in examining the problem. The following outline enucleates these significant correlations.

I. Multi-dimensional correlations greater than or equal to the .05 level of significance.

A. Dull-Stimulating Dimension

1) total group

a) observed behavior and the intern teacher's cognition of most teachers' behavior, linear scale--Table 4.18

b) observed behavior and the intern teacher's cognition of most teachers' behavior, structured interview--Table 4.19

B. Nonanalytical-Analytical Dimension

1) male group

a) the characteristics of critical practicality and the intern teacher's cognition of most teachers' behavior, linear scales--Table 4.12

b) the intern teacher's cognition of most teachers' behavior, linear scales, and the intern teacher's cognition of most teachers' behavior, structured interview--Table 4.17

C. Dissatisfied-Satisfied Dimension

1) total group

a) the characteristics of authoritarian personality and the intern teacher's cognition of most teachers' behavior, linear scales--Table 4.11

b) the characteristics of authoritarian personality and the intern teacher's cognition of most teachers' behavior, structured interview--Table 4.15

Unlike the multi-dimensional correlations at the .01 level, reported on Table 4.32, the multi-dimensional correlations at the .05 level, shown on Table 4.33, are found on three separate selected variables of teacher behavior. As is shown, there are no common relationships between the male, female, and total groups among these correlations as

there are among the multi-dimensional correlations at the .01 level.

There are, however, a few common relationships among the selected variables themselves. On the Dull-Stimulating dimension, the observed behavior of intern teachers was found to demonstrate a significant relationship with the intern teacher's cognition of most teachers' behavior as measured via the Linear Cognition Scales and the structured interview. The same type of relationship is present on the Dissatisfied-Satisfied dimension in the total group. The characteristics of authoritarian personality demonstrate a significant relationship with the intern teacher's cognition of most teachers' behavior as measured via the Linear Cognition Scales and the structured interview.

Questions three through fifteen display a scattering of multi-dimensional correlations among the selected variables of teacher behavior, with the greatest number of significant multi-dimensional correlations on any one variable standing at four. All of these coefficients were evinced at the .01 level.

In questions sixteen through eighteen, however, a survey of the significant coefficients of correlation, educed among the intercorrelation matrices, discloses a different picture than the one manifest in questions three through fifteen. The most distinct difference is in the great number of significant coefficients of correlation exhibited among the

variables of teaching behavior. Table 4.34, which follows, quantifies the number of significant correlations, at or beyond the .05 and .01 levels, found within each of the groups studied in questions sixteen through eighteen.

Table 4.34. Recapitulation of the total number of significant correlations educed at the .05 and .01 levels of significance from the intercorrelation matrices.

	Table 4.20	Table 4.21	Table 4.22
Question Sixteen (observed behavior)			
.01 level	13	24	40
.05 level	11	10	3
Question Seventeen (cognition: linear scale)			
	Table 4.24	Table 4.25	Table 4.26
.01 level	0	1	3
.05 level	6	6	10
Question Eighteen (cognition: interview)			
	Table 4.28	Table 4.29	Table 4.30
.01 level	3	5	12
.05 level	5	9	6

A study of the number of significant correlations, found in testing questions sixteen through eighteen, reveals that the greatest number were found among the characteristics of observed behavior, question sixteen. The fewest number of

significant correlations were found among the data regarding the intern teacher's cognition of the behavior of most teachers' behavior, on the selected variables, as measured on a linear scale, question seventeen. Further, it is only in question seventeen that there are more statistically significant coefficients of correlation at the .05 level than at the .01 level of significance.

In examining Tables 4.35 and 4.36, it is shown that most of the selected variables of teacher behavior, when coadunated, evince significant coefficients of correlation. On Table 4.35, the .01 level, a most noticeable lack of significant correlation is found on selected variable nine, the characteristics of circumventor-conformer behavior. Only in one instance, is there a significant correlation, that being with selected variable five, harsh-kindly behavior.

A review of Table 4.36; coadunation of the coefficients of intercorrelation, demonstrates a somewhat greater scattering of the significant correlations than was found on Table 4.35. In addition, selected behavioral variable nine, circumventor-conformer behavior correlates significantly with three of the selected behavioral variables at the .05 level. The variables found to correlate with variable nine are: 1) autocratic-democratic behavior, 2) harsh-kindly behavior, and 3) paorfessional-professional behavior.

From this survey of the significant data, it is apparent that in several instances significant relationships are

Table 4.35. Diagrammatic enumeration of the significant correlation at the .01 level educed from the aggregate intercorrelation matrices.

Variable	1	2	3	4	5	6	7	8	9	10
2	2									
3	2	5								
4	*	*	2							
5	2	2	4	6						
6	*	3	2	6	5					
7	2	2	*	3	3	5				
8	*		3	*	*	*	2			
9					*					
10	2	*	2	*	2	*	2	*		
11		*	2	*	*	*	3	3		4

* = one significant correlation which is greater than or equal to the .01 level of significance.

Table 4.36. Diagrammatic enumeration of the significant correlations at the .05 level educed from the aggregate intercorrelation matrices.

Variable	1	2	3	4	5	6	7	8	9	10
2										
3	2	*								
4	*	*								
5		3	*	*						
6	2	2	2	*						
7			2	3	2					
8	*	3	3	*	*	4	*			
9				*	*			*		
10		*		*		2		3		
11	*	3	3	*	*	4	2	3		2

* = one significant correlation which is greater than or equal to the .05 level of significance.

present among the variables selected for this study. However, it must be acknowledged that even though statistical significance was shown to exist between many of the selected variables, the number of subjects in each group was small and hence, conclusive generalizations should not be inferred.

Summary

Chapter four has presented an analysis of the data obtained from the administration of the California "F" Scale, the Hidden Shapes Test, the Linear Cognition Scales and the Intern Teacher Behavior Scale. These data were procured from twenty-six undergraduate students in elementary education enrolled in the Student Teacher Education Program at Michigan State University.

The data were analyzed by means of the computation of a coefficient of correlation for each set of variables identified and studied. Each of the nineteen dimensions of this study were analyzed independently of the others with the exception of question nineteen. This question was tested and analyzed first in order to determine whether or not any significant differences were present between the male and female groups examined in this sample. The findings were reported with reference to each of the questions identified.

The results educed from the analysis were reported in the following progression: Part One presented 1) an identification of each of the thirty-five variables studied,

2) a restatement of the major hypothesis, and 3) the means and standard deviations for each of the variables studied. Part Two reported the coefficients of correlation among the variables tested in each of the nineteen questions listed under the problem. Part Three reported a summary of the significant data which was educed, and Part Four summarized the chapter.

In Chapter five, the implications of these data are discussed, conclusions drawn and the study summarized.

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS

It was hypothesized that the ingredients for fostering change in teaching are the attitudes and behaviors of classroom teachers, this study set out to ascertain whether significant interrelations were present among two selected variables of personality and eleven selected variables of teacher behavior. The sample was obtained from twenty-six S.T.E.P. intern teachers, teaching in grades three, four and five, enrolled in elementary education at Michigan State University.

The selected variables of personality which were examined are:

1) the characteristics of authoritarian personality, and
2) the characteristics of critical practicality.

The selected variables of teacher behavior which were studied are:

1) dull-stimulating behavior
2) nonanalytical-analytical behavior
3) personal convenience-children's welfare behavior
4) autocratic-democratic behavior

5) harsh-kindly behavior

6) stereotyped-original behavior

7) inflexible-adaptable behavior

8) aprofessional-professional

9) circumventor-conformer behavior

10) insecure-secure behavior

11) dissatisfied-satisfied behavior

Historically, teachers have had the determinative responsibility for the instructional programs within their classroom, but not until recently has much been done by instructional leaders to apprehend the affects of personality and behavior upon the selection and implementation of instructional programs. It is known that teachers vary in their ableness to discriminate and to critically select materials and activities for use within their classroom. However, the causes of these differences are very obscure, if in fact they are understood at all.

It is thought by some that the controlling factor in teaching behavior is one's personality, while others propose that it is not personality at all but one's cognition of the behavior of most teachers which governs the manner in which they teach and behave. In order for curriculum leaders to actuate change and amelioration in instructional programs, these understandings must be procured.

The major concern of this study was to investigate 1) the degree to which the characteristics of authoritarian

personality and the characteristics of critical practicality exist among male and female Student Teacher Education Program intern teachers, teaching in grades three, four and five; 2) the manner in which these characteristics of personality relate to the selected aspects of teacher behavior among intern teachers; and 3) the intern teacher's cognition of the behavior of most teachers in regard to the selected variables of teacher behavior.

Specifically, the following questions were studied:

1) To what extent do third, fourth and fifth grade intern teachers evidence the characteristics of authoritarian personality?

2) To what extent do third, fourth and fifth grade intern teachers evidence the characteristics of critical practicality?

3) To what extent is there a relationship between the characteristics of authoritarian personality and the characteristics of critical practicality among intern teachers teaching in grades three, four and five?

4) What are the characteristics of the observed behavior of intern teachers, in regard to the selected variables of teacher behavior, teaching in grades three, four and five?

5) To what extent is there a relationship between the characteristics of authoritarian personality and the characteristics of observed behavior of intern teachers, in regard to the selected variables of teacher behavior, teaching in grades three, four and five?

6) To what extent is there a relationship between the characteristics of critical practicality and the characteristics of observed behavior of intern teachers, in regard to the selected variables of teacher behavior, teaching in grades three, four and five?

7) What is the intern teacher's cognition of the behavior of most teachers, in regard to the selected variables of teacher behavior, as measured on a linear scale?

8) To what extent is there a relationship between the characteristics of authoritarian personality and the intern teacher's cognition of the behavior of most teachers, in regard to the selected variables of teacher behavior, as measured on a linear scale?

9) To what extent is there a relationship between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers, in regard to the selected variables of teacher behavior, as measured on a linear scale?

10) What is the intern teacher's cognition of the behavior of most teachers in regard to the selected variables of teacher behavior, as measured in a structured interview?

11) To what extent is there a relationship between the characteristics of authoritarian personality and the intern teacher's cognition of the behavior of most teachers, in regard to the selected variables of teacher behavior, as measured in a structured interview?

12) To what extent is there a relationship between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers, in regard to the selected variables of teacher behavior, as measured in a structured interview?

13) To what extent is there a relationship between the intern teacher's cognition of the behavior of most teachers, in regard to the selected variables of teacher behavior, as measured on a linear scale and the intern teacher's cognition of the behavior of most teachers as measured in a structured interview?

14) To what extent is there a relationship between the characteristics of the observed behavior of intern teachers, in regard to the selected variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers as measured on a linear scale?

15) To what extent is there a relationship between the characteristics of the observed behavior of intern teachers, in regard to the selected variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers as measured in a structured interview?

16) To what extent are there relationships between the observed behavior of intern teachers among the selected variables of teacher behavior?

17) To what extent are there relationships between the intern teacher's cognition of most teachers behavior, as measured on a linear scale, among the selected variables of teacher behavior?

18) To what extent are there relationships between the intern teacher's cognition of most teacher behavior, as measured in a structured interview, among the selected variables of teacher behavior?

19) To what extent are there significant differences between the male and female intern teachers teaching in grades three, four and five in regard to the above eighteen questions?

In order to accomplish the purposes of this study, four test instruments were selected for use in obtaining data. The instruments that were selected are as follows:

1. California "F" Scale
2. Hidden Shapes Test
3. Linear Cognition Scales
4. Intern Teacher Behavior Scale

The California "F" Scale was employed to assess the characteristics of authoritarian personality and the Hidden Shapes Test was used to measure the characteristics of critical practicality in the subjects tested. A third dimension, cognition of teacher behavior, was evaluated by way of two techniques. The first technique employed was to

ask the intern teacher to mark on a linear scale the place which he believed best indicated the behavior of most teachers on each of the selected variables of teacher behavior. The second technique devised for assessing cognition of teacher behavior was to conduct an interview with each of the intern teachers examined, in order to determine their beliefs and feelings regarding the behavior of most teachers. The transcripts of each of these interviews were evaluated in order to measure the intern teacher's cognition of the behavior of most teachers as specified in the selected variables.

The final dimension, observed behavior, was studied in order to determine the interrelations among personality structure, cognition of teacher behavior and overt behavior. To measure the overt behavior of the intern teachers selected for this study, the supervisors for each of the interns were asked to indicate on the Intern Teacher Behavior Scale the place which they believed best described the behavior of their intern teacher, with whom they were very well acquainted, within the limits of the selected variables.

The mensuration of the interrelations among the selected personality variables and the selected behavioral variables was accomplished through computing a coefficient of correlation for each set of variables tested in answering the questions listed under the statement of the problem in chapter one. The index to the coefficient of correlation

utilized in this study is the Pearson product-moment correlation coefficient.

In addition to testing the total group in examining the questioned relationships, the male and female sub-groups were also tested. Fisher's Logarithmic Transformation of r was employed in order to ascertain whether significant differences were present among the relationships found in the male and female groups in regard to the selected variables tested. No significant differences were found.

In the discussion which follows, each of the questions presented under the statement of the problem will be considered in light of the evidence educed in the analysis of the data reported in chapter four. Each question is handled separately. Following the discussion of the questions, the assumptions and implications drawn from this study and the recommendations for further research are presented.

Deliberation of the Rejection or Non-rejection of the Major Hypothesis

The major hypothesis with which this study is concerned states that:

> there are no significant relationships among the characteristics of authoritarian personality; the characteristics of critical practicality; the observed behavior of male and female intern teachers, in regard to selected variables of teacher behavior, teaching in grades three, four, and five; and the cognition of the behavior of most teachers, in regard to selected variables of teacher behavior, as measured in male and female intern teachers teaching in grades three, four, and five.

To aid in testing the above hypothesis, nineteen questions were identified relative to this hypothesis. The following is a re-statement of these questions, denoting the significant relationships educed in their examination.

Question I:

> To what extent do third, fourth and fifth grade intern teachers evidence the characteristics of authoritarian personality?

The subjects of this study were found to be much less oriented toward authoritarian behavior than are most middle-class adults.

Question II:

> To what extent do third, fourth and fifth grade intern teachers evidence the characteristics of critical practicality?

The subjects of this study were found to be free from compulsive-obsessive behavior and able to assess and analyze a problem rather critically. The male group demonstrated a greater aptitude for critical analysis than did the female group.

Question III:

> To what extent is there a relationship between the characteristics of authoritarian personality and the characteristics of critical practicality among intern teachers teaching in grades three, four and five?

It was educed that no significant relationship was present between the characteristics of authoritarian personality and the characteristics of critical practicality.

Question IV:

> What are the characteristics of the observed behavior of intern teachers, teaching in grades three, four and five, in regard to the selected variables of teacher behavior?

In all cases, the overt behavior of the intern teachers which were studied was seen as exemplifying those characteristics associated with the positively oriented terminal-point definitions.

Question V:

> To what extent is there a significant relationship between the characteristics of authoritarian personality and the characteristics of observed behavior of intern teachers, teaching in grades three, four and five, in regard to the selected variables of teacher behavior?

There were no significant relationships found to be present between the characteristics of authoritarian personality and the characteristics of the intern teacher's observed behavior.

Question VI:

> To what extent is there a significant relationship between the characteristics of critical practicality and the characteristics of observed behavior of intern teachers, teaching in grades three, four, and five, in regard to the selected variables of teacher behavior?

Significant relationships, greater than the probability of chance, were found among two of the eleven selected variables of teacher behavior. These variables were the autocratic-democratic dimension and the inflexible-adaptable dimension.

Question VII:

> What is the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, in regard to the selected variables of teacher behavior?

In all cases, the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, exemplified those characteristics associated with the positively oriented terminal-point definitions.

Question VIII:

> To what extent is there a significant relationship between the characteristics of authoritarian personality and the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, in regard to the selected variables of teacher behavior?

Significant relationships, greater than the probability of chance, were found on one of the eleven selected variables of teacher behavior. This dimension was the inflexible-adaptable variable.

Question IX:

> To what extent is there a significant relationship between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, in regard to the selected variables of teacher behavior?

There were no significant relationships found to be present between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale.

Question X:

> What is the intern teacher's cognition of the behavior of most teachers, as measured in a structured interview, in regard to the selected variables of teacher behavior?

In all cases, the intern teacher's cognition of the behavior of most teachers behavior, as measured in a structured interview, exemplified those characteristics which were associated with the positively oriented terminal-point definitions.

Question XI:

> To what extent is there a significant relationship between the characteristics of authoritarian personality and the intern teacher's cognition of the behavior of most teachers, as measured in a structured interview, in regard to the selected variables of teacher behavior?

Significant relationships, greater than the probability of chance, were found on four of the eleven selected variables of teacher behavior. The significant relationships were found on the following variables: the inflexible-adaptable dimension, the circumventor-conformer dimension, the stereotyped-original dimension, and the dissatisfied-satisfied dimension.

Question XII:

> To what extent is there a significant relationship between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers as measured in a structured interview, in regard to the selected variables of teacher behavior?

There were no significant relationships found to be present between the characteristics of critical practicality and the intern teacher's cognition of the behavior of most teachers, as measured in a structured interview.

Question XIII:

> To what extent is there a significant relationship between the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, in regard to the selected variables of teacher behavior and the intern teacher's cognition of the behavior of most teachers as measured in a structured interview?

Significant relationships, greater than the probability of chance, were found to be present on all but one of the selected variables of teacher behavior; that being the circumventor-conformer dimension.

Question XIV:

> To what extent is there a significant relationship between the characteristics of the observed behavior of intern teachers, in regard to the selected variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers as measured on a linear scale?

There were no significant relationships found to be present, greater than the probability of chance, between the characteristics of the intern teacher's overt behavior and his cognition of the behavior of most teachers, as measured on a linear scale.

Question XV:

> To what extent is there a significant relationship between the characteristics of the observed behavior of intern teachers, in regard to the selected

> variables of teacher behavior, and the intern teacher's cognition of the behavior of most teachers behavior as measured in a structured interview?

Significant relationships, greater than the probability of chance, were found to be present among three of the selected variables of teacher behavior. These variables were the dull-stimulating variables, the nonanalytical-analytical variable and the harsh-kindly variable.

Question XVI:

> To what extent are there significant relationships between the observed behavior of intern teachers among the selected variables of teacher behavior?

Significant relationships, greater than the probability of chance, were found to be present among all but one of the selected variables of teacher behavior. The dimension showing no significant relationships was the circumventor-conformer variable.

Question XVII:

> To what extent are there significant relationships between the intern teacher's cognition of most teachers behavior, as measured on a linear scale, among the selected variables of teacher behavior?

Significant relationships, greater than the probability of chance, were found among eight of the eleven selected variables of teacher behavior. These significant relationships however, were scattered on the matrix and little meaning can be derived from them regarding the inter-relations among behavior and cognition.

Question XVIII:

> To what extent are there significant relationships between the intern teacher's cognition of most teachers behavior, as measured in a structured interview, among the selected variables of teacher behavior?

Significant relationships, greater than the probability of chance, were found among eight of the eleven selected variables of teacher behavior. Unlike those relationships found among cognition as measured on a linear scale, cognition measured in a structured interview tended to show several relationships which were indicative of patterns of behavior.

Question XIX:

> To what extent are there significant differences between the male and female intern teachers, teaching in grades three, four and five, in regard to the above eighteen questions?

No significant differences were found to be present between the male and female intern teachers studied in this sample.

From the above analysis, it was educed that significant statistical relationships were found to be present among many of the independent and dependent variables identified for use in this study. Therefore, the major hypothesis stating that no significant relationship is present among the selected variables of personality structure and the selected variables of teacher behavior must be rejected.

Table 5.1 Recapitulation of the significant relationships found in examining the problem.

	Significant Relationships Found to be Present	No Significant Relationships Found to be Present
Question III:		X
Question V:		X
Question VI:	X	
Question VIII:	X	
Question IX:		X
Question XI:	X	
Question XII:		X
Question XIII:	X	
Question XIV:		X
Question XV:	X	
Question XVI:	X	
Question XVII:	X	
Question XVIII:	X	
Question XIX:		X
Total:	8	6

Assumptions and Implications

In drawing appropriate assumptions and implications, one faces the difficulty of identifying and selecting several interpretive assumptions that are credible. When one regards the findings of this study, however, in relation to its purposes, the assumptions and implications can be drawn more easily and focused more sharply.

The purpose of this study was to investigate, measure, and discuss 1) the degree to which the characteristics of authoritarian personality and the characteristics of critical practicality exist among male and female Student Teacher Education Program intern teachers, teaching in grades three, four and five; 2) the manner in which these characteristics of personality relate to the selected aspects of teacher behavior among intern teachers; and 3) the intern teacher's cognition of the behavior of most teachers in regard to the selected variables of teacher behavior.

Implications are drawn, in terms of the purposes of this study, from the assumptions which were made and the experience of the writer, as they relate to the preparation of teachers and the process of teaching.

Assumption I:

Based upon the results of the analysis of the characteristics of authoritarian personality, it is assumed that intern teachers, teaching in grades three, four and five, exhibit

few of the characteristics associated with authoritarian personality.

Implication 1:

The intern teachers sampled in this study are very much like most other teachers in regard to their potentials for authoritarian behavior.

Implication 2:

The intern teachers sampled in this study are not in general concerned with relationships of power and authority.

Implication 3:

The intern teachers sampled in this study tend to be less aggressive and competitive than most other middle-class oriented adults.

Implication 4:

The intern teachers sampled in this study tend to be open and out-going, demonstrating a desire to help others.

Assumption II:

Based upon the results of the analysis of the characteristics of critical practicality, it is assumed that intern teachers, teaching in grades three, four and five, exhibit very few of the characteristics identified as critical practicality.

Implication 1:

The intern teachers sampled in this study are thorough, conscientious and flexible when examining a new problem or situation.

Implication 2:

The intern teachers sampled in this study are generally open to critical suggestions and are generally free from rigid behavioral patterns; both mental and overt.

Assumption III:

The personality characteristics of authoritarian behavior and critical practicality are not significantly related in the behavior demonstrated by the intern teachers sampled in this study.

Assumption IV:

Based upon the results of the analysis of the assessment of observed behavior, it is assumed that intern teachers, teaching in grades three, four, and five, exemplify the positive ends of the behavioral continua rather than the negative ends of the behavioral continua in regard to the selected variables of teacher behavior.

Implication 1:

The behavior of the intern teachers sampled in this study is generally viewed in a favorable light when being assessed by the intern teacher's supervisor.

Implication 2:

Failure on the part of an intern teacher sampled in this study is generally felt to reflect upon the efforts and reputation of the intern teacher's supervisor.

Implication 3:

The supervisors of the intern teachers sampled in this study are generally conditioned to reporting acceptable patterns of intern teacher behavior unless the intern teacher's behavior is such that it calls attention to itself.

Assumption V:

Based upon the results of the analysis of the characteristics of authoritarian personality, it is assumed that authoritarian personality has little or no effect upon the overt behavior of intern teachers, teaching in grades three, four and five.

Implication 1:

The behavior of the intern teachers sampled in this study is not oriented toward authoritarian characteristics.

Implication 2:

The intern teachers sampled in this study have learned to control any authoritarian characteristics within the limits of acceptable teacher behavior.

Implication 3:

People possessing authoritarian personalities tend to avoid the profession of teaching because of the potential conflicts between their personality and accepted teaching practice.

Assumption VI:

Based upon the results of the analysis of the characteristics of critical practicality, it is assumed that an absence of the characteristics of critical practicality among intern teachers permits them to be democratic and flexible in their overt teaching behavior.

Implication 1:

People possessing the characteristics of critical practicality are not generally drawn to the profession of teaching.

Implication 2:

The characteristics associated with critical practicality are not in line with the characteristics of sound teaching practices.

Assumption VII:

Based upon the results of the analysis of the intern teacher's cognition of the behavior of most teachers, it is assumed that the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, reflects a belief in accepted behavioral practices among most teachers, but only to a small degree.

Implication 1:

The intern teachers sampled in this study have not carefully assessed their beliefs regarding the selected variables of teacher behavior, in terms of a linear scale, and hence tend to indicate their responses toward the median point on each of the scales.

Implication 2:

Assessing teacher behavior on a linear scale lacks a sense of reality; as a result it is inherently inaccurate.

Implication 3:

The intern teachers sampled in this study were reluctant to commit themselves in their beliefs regarding the selected variables of teacher behavior on a pencil and paper instrument.

Assumption VIII:

Based upon the results of the analysis of the correlation between the selected variable of inflexible-adaptable behavior and the characteristics of authoritarian personality, it is assumed that the significant relationships between the selected variable of inflexible-adaptable behavior and the lack of authoritarian characteristics among intern teachers supports the notion that most intern teachers are flexible and adaptable in their approaches to teaching.

Implication 1:

Inflexible intern teachers do not generally request assignment in grades three, four and five.

Implication 2:

Inflexible students do not remain in the Student Teacher Education Program.

Implication 3:

Inflexible students do not enter the Student Teacher Education Program.

Assumption IX:

Based upon the results of the analysis of the correlation between the characteristics of critical practicality and the selected variable of nonanalytical-analytical behavior, it is assumed that the characteristics of critical practicality, when not extreme, tend to reinforce the characteristics of nonanalytical-analytical behavior in male intern teachers.

Implication 1:

Thoroughness and care in assessing problems and situations related to teaching are related to the characteristics of critical practicality in male intern teachers.

Implication 2:

The characteristics of critical practicality, when not extreme, do not tend to reinforce the characteristics of nonanalytical-analytical behavior in female intern teachers.

Assumption X:

Based upon the results of the analysis of the intern teacher's cognition of the behavior of most teachers, it is assumed that the intern teacher's cognition of the behavior of most teachers, as measured in a structured interview, rather definitely indicates a belief among intern teachers in teacher behavior which is acceptable to most as positive in nature.

Implication 1:

The intern teachers sampled in this study profess a belief in accepted behavioral patterns for most teachers.

Implication 2:

The intern teachers sampled in this study are more likely to express themselves verbally, regarding teacher behavior, than they are on a linear scale.

Assumption XI:

Based upon the results of the analysis of the characteristics of authoritarian personality and the selected variable of dissatisfied-satisfied behavior, it is assumed that the absence of the characteristics of authoritarian personality permits the intern teacher to be satisfied in his teaching assignment and position.

Implication 1:

The intern teachers sampled in this study, being flexible,

can accept the environment and conditions of their placements without dissatisfaction.

Implication 2:

Authoritarian teachers are less likely to be satisfied than are non-authoritarian teachers.

Assumption XII:

Based upon the results of the analysis of the characteristics of critical practicality and the cognition of the behavior of most teachers, as measured in a structured interview, among intern teachers, it is assumed that the characteristics of critical practicality are not compatible with the accepted beliefs held by intern teachers as measured in a structured interview.

Implication 1:

A conflict of precepts of teaching behavior is present when intern teachers discuss what "ought to be" in teaching behavior and what "is" in teaching behavior.

Implication 2:

The intern teachers sampled in this study, being rather free from rigid conceptual behavior, tend to deviate from that behavior which they profess to believe regarding the behavior of most teachers.

Assumption XIII:

Based upon the results of the analysis of the intern teacher's cognition of the behavior of most teachers, as measured on a linear scale, and the intern teacher's cognition of the behavior of most teachers, as measured in a structured interview, it is assumed that intern teachers are very consistent in their responses to queries regarding their beliefs about the behavior of most teachers.

Implication 1:

The intern teachers sampled in this study have learned appropriate responses to most questions regarding the behavior of most teachers.

Implication 2:

The intern teachers sampled in this study were adaptable enough to remain consistent in their responses when examined via two assessment techniques.

Assumption XIV:

Based upon the results of the analysis of the intern teacher's cognition of the behavior of most teachers and his observed behavior in regard to the selected variables of teacher behavior, it is assumed that there is very little relationship between the beliefs professed by intern teachers regarding the behavior of most teachers and their own overt behavior.

Implication 1:

The intern teachers sampled in this study have learned certain accepted responses to questions regarding teacher behavior which do not in any way reflect the intern teacher's own behavior.

Implication 2:

The intern teachers sampled in this study are not inclined to admit to their own behavior in an assessment situation or experience.

Implication 3:

The intern teachers sampled in this study are conditioned to provide the "correct" response in regard to teacher behavior whether it is consistent with their beliefs or not.

Assumption XV:

Based upon the results of the analysis of the attitudes and behaviors of male and female intern teachers, it is assumed that there are but few differences between the attitudes and behaviors of the male and female intern teachers examined in this study.

Implication 1:

The intern teachers sampled in this study represent a homogeneous group.

Implication 2:

The intern teachers sampled in this study have learned to give certain accepted responses irregardless of their own attitudes and beliefs regarding the behavior of most teachers.

In conclusion, a reminder of the limitations of this study is necessary because the sample studied does not represent a random sample of elementary school teachers. It is but one sample, having an N of twenty-six, which was examined in the State of Michigan. A complete statement of the limitations of this study are presented in chapter one.

Recommendations of Areas for Further Research

The many significant coefficients of correlation educed in this study demonstrate that numerous significant relationships are present between the characteristics of personality and selected variables of teacher behavior. It is recommended that further research be done in the following areas:

1) Similar research as was done in this study should be reconducted with a sample population of 100 to 500 subjects in order to verify or refute the findings of this study.

2) Specific facets of the selected variables of personality should be examined more carefully in an effort to establish a cause and effect relationship among the variables where possible.

3) A wider range of teaching behavior must be examined in order to learn more about the process of teaching and the effects of personality upon the behavior of teachers.

4) More research should be undertaken to examine the characteristics of teacher personality and behavior at each of the grade levels from kindergarten through eighth grade.

5) Longitudinal research should be started covering periods of five, ten, fifteen, twenty, twenty-five and thirty years in order to assess changes in teacher attitudes and behavior throughout one's career.

6) Further research should be done to examine the relationships between curricular selection and teacher personality.

The opportunities for research among the relationships between teachers and the teaching process are limitless!! Until now, researchers have only scratched the surface of the world of education but with the aid of modern technical advances in data processing and research techniques, that which was once thought of as being impossible will soon become very possible.

Summary

Chapter five presented a summary and review of the research which was done in this study. The questions which were listed under the statment of the problem were considered and answered.

The third section of chapter five reports the assumptions and implications which were gleaned from this study. Finally, recommendations for further research were presented as a conclusion of the study.

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APPENDICES

APPENDIX A

TEST INSTRUMENTS USED IN THE STUDY

‡ ‡ ‡ PERSONAL DATA ‡ ‡ ‡

E.I.P. CENTER _____

IDENTIFICATION NUMBER _____

GRADE LEVEL _____

SEX _____

AGE _____

MARITAL STATUS _____

CALIFORNIA "F" SCALE

DIRECTIONS:

The California "F" Scale is an attitude inventory designed to explore your feelings and beliefs in a number of areas. There are no "right" or "wrong" responses to these statements and hence, you should feel free to respond honestly, according to your beliefs and feelings.

In answering the inventory items, you should:

(1) read each statement carefully,
(2) think about the statement for a moment,
(3) circle the selected response designator which comes closest to your feeling or belief.

The response designators are valued as shown on the following scale:

+3 - I strongly agree
+2 - I agree
+1 - I slightly agree
? - I am undecided
-1 - I slightly disagree
-2 - I disagree
-3 - I strongly disagree

Each item is to be answered using the above scale. Be sure to respond to every item. This inventory is not timed: you may take as long as you like to complete this activity.

If you have any questions regarding the directions or the method of indicating your response, please raise your hand and you will receive help. If you have no questions, you may begin.

+3 +2 +1 ? -1 -2 -3 (1) Obedience and respect for authority are the most important virtues children should learn. (1)

+3 +2 +1 ? -1 -2 -3 (2) No weakness or difficulty can hold us back if we have enough will power. (2)

+3 +2 +1 ? -1 -2 -3 (3) Science has its place, but there are many important things that can never possibly be understood by the human mind. (4)

+3 +2 +1 ? -1 -2 -3 (4) Human nature being what it is, there will always be war and conflict. (6)

+3 +2 +1 ? -1 -2 -3 (5) Every person should have complete faith in some supernatural power whose decisions he obeys without question. (8)

+3 +2 +1 ? -1 -2 -3 (6) When a person has a problem or worry, it is best for him not to think about it, but to keep busy with more cheerful things. (9)

+3 +2 +1 ? -1 -2 -3 (7) A person who has bad manners, habits, and breeding can hardly expect to get along with decent people. (12)

+3 +2 +1 ? -1 -2 -3 (8) What the youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country. (13)

+3 +2 +1 ? -1 -2 -3 (9) Some people are born with an urge to jump from high places. (16)

+3 +2 +1 ? -1 -2 -3 (10) Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching an infection or disease from them. (18)

+3 +2 +1 ? -1 -2 -3 (11) An insult to our honor should always be punished. (19)

+3 +2 +1 ? -1 -2 -3 (12) Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down. (21)

+3 +2 +1 ? -1 -2 -3 (13) It is best to use some prewar authorities in Germany to keep order and prevent chaos. (22)

+3 +2 +1 ? -1 -2 -3 (14) What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith. (23)

+3 +2 +1 ? -1 -2 -3 (15) Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped, or worse. (25)

+3 +2 +1 ? -1 -2 -3 (16) People can be divided into two distinct classes: the weak and the strong. (26)

+3 +2 +1 ? -1 -2 -3 (17) There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents. (27)

+3 ±2 ±1 ? -1 -2 -3 (18) Some day it will probably be shown that astrology can explain a lot of things. (29)

+3 +2 +1 ? -1 -2 -3 (19) Nowadays more and more people are prying into matters that should remain personal and private. (31)

+3 +2 +1 ? -1 -2 -3 (20) Wars and social troubles may someday be ended by an earthquake or flood that will destroy the whole world. (33)

+3 +2 +1 ? -1 -2 -3 (21) Most of our social problems would be solved if we could somehow get rid of the immoral, crooked, and feebleminded people. (34)

+3 +2 +1 ? -1 -2 -3 (22) The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might liast expect it. (35)

+3 +2 +1 ? -1 -2 -3 (23) If people would talk less and work more, everybody would be better off. (37)

+3 +2 +1 ? -1 -2 -3 (24) Most people don't realize how much our lives are controlled by plots hatched in secret places. (38)

+3 +2 +1 ? -1 -2 -3 (25) Homosexuals are hardly better than criminals and ought to be severly punished. (39)

+3 +2 +1 ? -1 -2 -3 (26) The businessman and the manufacturer are much more important to society than the artist and the professor. (41)

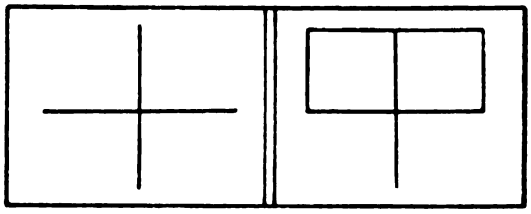
+3 +2 +1 ? -1 -2 -3 (27) No sane, normal, decent person could ever think of hurting a close friend or relative. (42)

+3 +2 +1 ? -1 -2 -3 (28) Familiarity breeds contempt. (43)

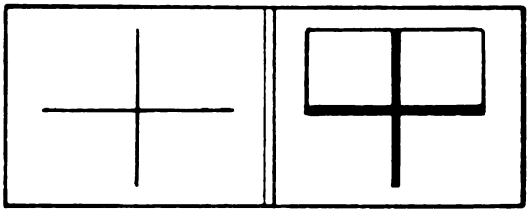
+3 +2 +1 ? -1 -2 -3 (29) Nobody ever learned anything really important except through suffering. (44)

HIDDEN SHAPES

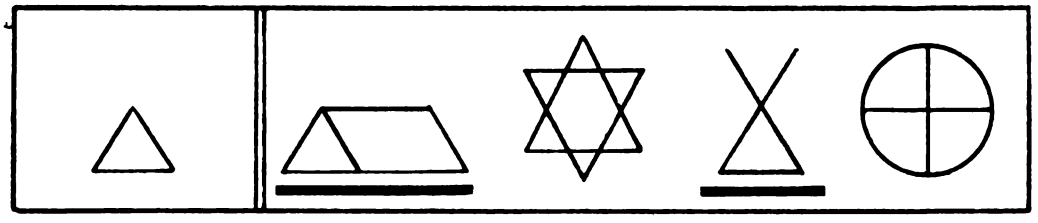
WHAT TO DO: You will be asked to find the first figure in a second figure. In the following example the first figure, a cross, is hidden in the second.



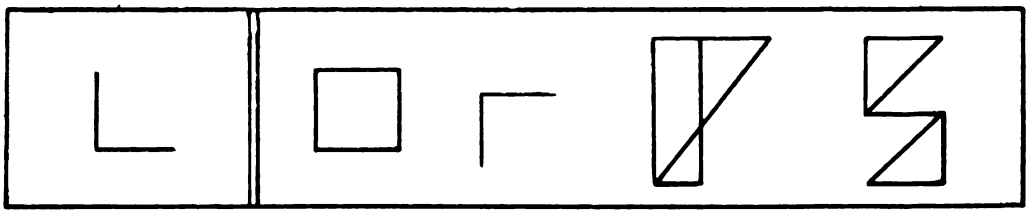
You could show it in the second, if necessary, by drawing heavy lines over it, like this:



In the next example, two figures contain the first shape and two do not. Instead of drawing in the shape, we shall henceforth simply underline the pictures which have it.



Notice that in order to count as right, the shape must be just the same size and the same way up; that is, not turned around. Here is another example. Do this one yourself.



You should have marked the first and last answers in the preceding example.

In each example on the next pages there will generally be two pictures that contain the shape and two that do not. Always underline the two that have it.

DO NOT TURN PAGE UNTIL TOLD TO DO SO

LINEAR COGNITION SCALE

Directions:

"We are interested in knowing what your feelings now are as to what teachers as a group (teachers generally, teachers typically) are like. I should now like you to respond, on a seven point scale, to a series of questions dealing with your perceptions of most teachers (teachers generally). For each scale we have developed definitions for the two end points and will be glad to read these to you if you have any doubt as to the characteristic about which the questions is being asked. Make an "X" at whatever place on the scale corresponds with your true feelings. We are not asking you about just the teachers in your own building, but rather about the impressions or feelings you have developed as a result of all of the experiences you have had over the past three years. A part of the purpose in asking you to make the scales is to help you organize your response. If you will, therefore, think out loud as you sort out your feelings and impressions in order to reach a decision as to where you will make each scale. In other words, we are interested in <u>why</u> you feel as you do as we are in knowing <u>how</u> you feel.

(1) Based on your own observation and experience over the past three years, how <u>dull</u> or <u>stimulating</u> do you believe most teacher are?

> <u>Dull</u> behavior includes such acts as giving uninteresting, monotonous explanations, assigning work which provides little or no motivation, failure to challenge children, failing to capitalize on the children's interests, appearing to be bored with the children and the job. <u>Stimulating</u> behavior includes such acts as getting and holding attention without being flashy, being clever and witty without seeming smartalecky, providing challenging work, taking advantage of pupils' interests, stimulating children to think for themselves, bringing lessons to a clear and meaningful climax, appearing to be enthusiastic about the children and the job.

(2) Based on your own observation and experience over the past three years, how <u>analytical</u> or <u>non-analytical</u> do you believe most teachers are?

> By <u>analytical</u> is meant a consistent and careful examination of the several factors which are basic to a real understanding of an issue, and consistent and serious examination of the relative advantages and disadvantages of several alternative courses of action will be pursued.

By non-analytical is meant action out of habit, seeking expedient solutions to immediate problems without considering either alternative solutions or the long term implications of the chosen solution.

(3) Based on your own observation and experience over the past three years, is the welfare of the children or the personal convenience of the teacher of greater importance to most teachers?

Children's welfare is appropriate if it is felt that teachers consistently make decisions in terms of what is best for the children, individually and collectively, even if the decision entails personal sacrifices by the teachers.
Personal Convenience is appropriate if it is felt that most teachers consistently make decisions in terms of what is easiest and most convenient for themselves, without regard for what may be good for the children, either as individuals or as a group.

(4) Based on your own observation and experience over the past three years, how autocratic or democratic do you believe most teachers are?

Autocratic teachers are those who tell children each step to take, who exhibit intolerance for children's ideas, who insist that orders always be obeyed at once, who interrupt children even when their behavior is appropriate to the situation, who consistently direct and control all of the children's activities.
Democratic teachers are those who consistently guide children in their work without imposing their own will upon them, who exchange ideas freely with the children, who encourage children to make their own decisions.

(5) Based on your own observation and experience over the past three years, how harsh or kindly do you believe most teachers are?

Harsh behavior includes such acts as crossness, using sarcasm, frequent scolding of children, loss of temper, the use of threats, permitting children to be rude to each other.
Kindly behavior included such acts as going out of one's way to be pleasant, friendly, helpful to the children, giving a child a deserved compliment, sincere concern for the personal problems of children, showing affection without being demonstrative, tactfully turning a child away when attention is not appropriate to the situation.

(6) Based on your own observation and experience over the past three years, how original or stereotyped do you believe most teachers are?

> Stereotyped teaching includes the unvarying use of routine sets of procedures, unwillingness to depart from plans to take advantage of a relevant question or situation, presenting materials in an unimaginative way, lack of resourcefulness in answering questions or providing explanations, utilizing the same units and/or lesson plans year after year.
> Original teaching includes using ingenious and relatively unique methods and devices as aids to instruction, a willingness to try new materials and methods, keeping abreast of changes in education, imaginatively developing and presenting material, using a variety of approaches in answering a question or making a point.

(7) Based on your own observation and experience over the past three years, how inflexible or adaptable do you believe most teachers are?

> Inflexible behavior includes rigidness in conforming to routine, making no attempt to adapt materials to individual children or to differences in the children as a group from one year to another, seeming to be unwilling or unable to modify explanations or activities to meet particular classroom situations, showing impatience with interruptions, questions, or digressions.
> Adaptable behavior includes the ability to adapt materials to the needs of individual children and to the level of the particular group, the ability to adapt activities to the situation at hand, being able to utilize children's contributions to clarify ideas, the ability to competently meet the unusual and unexpected.

(8) Based on your own observation and experience over the past three years, how professional or aprofessional do you believe most teachers are?

> Professional behavior includes such acts as volunteering to do committee work within the building or the school system, actively supporting one or more organizations in the neighborhood or community, clearly identifying self with the teaching profession, behaving in a consistently ethical way in relations with other teachers, parents, administrators, and the general public.
> Aprofessional behavior includes such acts as serving on committees only if pressured to do so, not participating in any professional organizations, having no interest in the affairs of the neighborhood or community, seeing

self as merely holding a job, using expediency as the basis for relations with other teachers, parents, administrators, and the public.

(9) Based on your own observation and experience over the past three years, do you believe most teachers are circumventors of the rules or conformers to the rules?

Circumventors is appropriate if most are those who, for example, are not reluctant to "bend" or break a rule if it is not appropriate to their situation, who are able to do things "their own way" without arousing antagonism or hostility, who, when they disagree, are able to achieve, either an acceptable compromise or are permitted to be or make an exception, without creating anxiety or hard feeling in others.
Conformers are those who, for example, are reluctant to "bend" or break a rule if it is not appropriate to their situation, who would be reluctant to do things "their own way" if in so doing they violate a rule or regulation even one with which they did not agree, who, even if they disagreed, would be reluctant to push for a change or to ask that an exception be made for fear of creating anxiety or hard feelings in others.

(10) Based on your observation and experience over the past three years, how secure or insecure do you believe most teachers are?

Secure behavior includes such things as having confidence in the value of their own ideas, feeling comfortable when others are watching them teach, seldom needing to be reassured that "the right things" are being done for the child and/or a class, being able to both give and receive advice and criticism without feeling personally threatened by it, feeling comfortable with and able to communicate frankly with parents, building principals and administrators.
Insecure behavior includes such things as frequently doubting the value of their own ideas, consistently seeking reassurance about the adequacy of the teaching job being done, being reluctant to have others observe them teach and uncomfortable when more than the teacher and children are in the room, feeling reluctant to give advice and help to others for fear it may not be any good, feeling personally threatened by advice and/or criticism offered by others, feeling uncomfortable with and hence, seeking to avoid whenever possible contact with parents, building principals, and administrators.

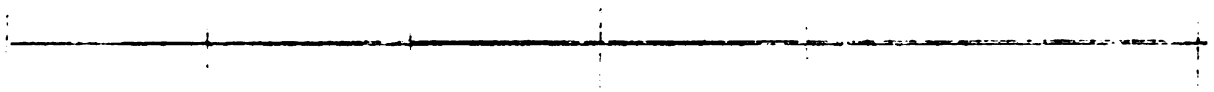
(11) Based on your own observation and experience over the past three years, how satisfied or dissatisfied do you believe most teachers are?

Teachers satisfied is appropriate if most consistently you feel they would prefer teaching to any other occupation, if most consistently you feel that teaching is a useful and valued occupation, if most consistently you feel that the building in which they teach is a good place to work and the particular children with whom they are working are "good kids," if only rarely are most cynical or complaining.
Teacher dissatisfied is appropriate if most consistently you feel they would prefer to be doing something other than teaching, if most consistently you feel that teaching is self-defeating and/or that the society does not feel that teaching is very important, if most feel that the building in which they teach is a poor place to work and would transfer if they could, if most feel that the children with whom they are working are not a very good group, if most are consistently cynical and complaining.

DULL STIMULATING


ANALYTICAL
NON-ANALYTICAL

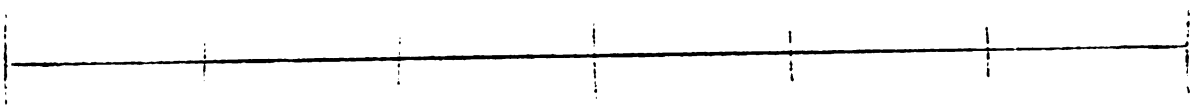
CHILDREN'S WELFARE PERSONAL CONVENIENCE




AUTOCRATIC
DEMOCRATIC

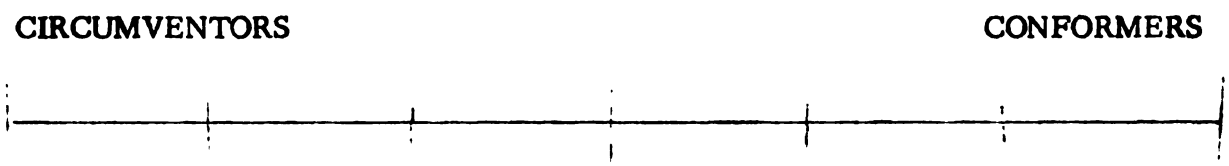
HARSH KINDLY

STEREOTYPED ORIGINAL

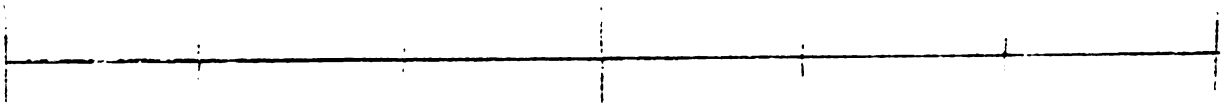


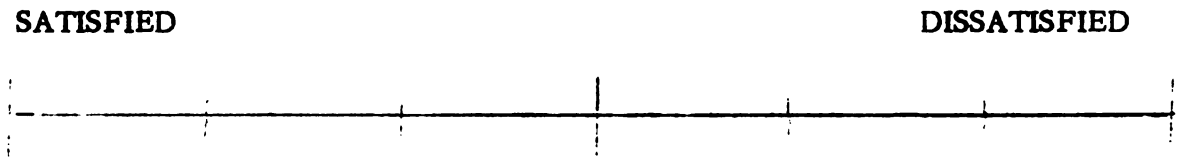
INFLEXIBLE ADAPTABLE

PROFESSIONAL APROFESSIONAL


CIRCUMVENTORS
CONFORMERS

SECURE INSECURE




SATISFIED
DISSATISFIED

INTERN TEACHER BEHAVIOR SCALE

Directions:

I am interested in knowing your observations of your intern teacher and would like for you to respond, on a ten point scale, to a series of questions dealing with your perceptions of this student's behavior. For each scale, definitions have been developed for the two end points which will be read to you--via a tape recorder--explaining the characteristics about which the questions are being asked.

Mark an "X" at whatever place on the scale most closely represents your observations and perceptions of your intern's behavior. The eleven selected behavior scales are to be considered as continua of behavior; neither the right side nor the left side represent "acceptable" or "unacceptable" behavior. Rather, these continua scale out and define dichotomous ends for certain behavioral patterns.

Should you have any questions in marking this inventory, I shall be happy to assist you.

(1) Based upon your own observation and experience over the past two years, how dull or stimulating do you believe your intern teacher to be?

(2) Based upon your own observation and experience over the past two years, how analytical or non-analytical do you believe your intern teacher to be?

(3) Based upon your own observation and experience over the past two years, is the welfare of the children or the personal convenience of the teacher of greatest importance to your intern teacher?

(4) Based on your own observation and experience over the past two years, how autocratic or democratic do you believe your intern teacher to be?

(5) Based upon your own observation and experience over the past two years, how harsh or kindly do you believe your intern teacher to be?

(7) Based upon your own observation and experience over the past two years, how inflexible or adaptable do you believe your intern teacher to be?

(8) Based upon your own observation and experience over the past two years, how professional or aprofessional do you believe your intern teacher to be?

(9) Based upon your own observation and experience over the past two years, do you believe your intern teacher to be a circumventor or conformer to the rules of the school?

(10) Based upon your own observation and experience over the past two years, how secure or insecure do you believe your intern teacher to be?

(11) Based upon your own observation and experience over the past two years, how satisfied or dissatisfied do you believe your intern teacher to be?

INTERN TEACHER BEHAVIOR SCALE

	1	2	3	4	5	6	7	8	9	10	?	
DULL												STIMULATING
ANALYTICAL												NON-ANALYTICAL
CHILDREN'S WELFARE												PERSONAL CONVENIENCE
AUTOCRATIC												DEMOCRATIC
HARSH												KINDLY
STEREOTYPED												ORIGINAL
INFLEXIBLE												ADAPTABLE
PROFESSIONAL												APROFESSIONAL
CIRCUMVENTORS												CONFORMERS
SECURE												INSECURE
SATISFIED												DISSATISFIED
	1	2	3	4	5	6	7	8	9	10	?	

DIRECTIONS AND COMMENT

I am interested in knowing your observations of your intern teacher and would like for you to respond, on a ten point scale, to a series of questions dealing with your perceptions of this student's behavior. For each scale, definitions have been developed for the two end points which will be read to you--via a tape recorder--explaining the characteristics about which the questions are being asked.

Mark an "X" at whatever place on the scale most closely represents your observations and perceptions of your intern's behavior. The eleven (11) selected behavior scales are to be considered as continua of behavior; neither the right side nor the left side represent "acceptable" or "unacceptable" behavior. Rather, these continua scale out and define dichotomous ends for certain behavioral patterns.

Should you have any questions in marking this inventory, I shall be happy to assist you.

APPENDIX B

RAW DATA COLLECTED FOR ANALYSIS

Name Grade Sex	"F" Scale Score	Hidden Shapes Test Score
A 3 F	2.724	29
B 3 F	3.034	23
C 3 F	3.068	28
D 3 F	3.931	32
E 3 F	3.724	13
F 3 F	2.758	16
G 3 F	3.103	24
H 4 F	2.862	32
I 4 F	3.689	25
J 4 F	2.689	27
K 4 F	1.931	20
L 4 F	4.310	17
M 5 F	2.448	23
N 5 F	2.137	18
O 5 F	3.103	23
P 5 F	1.793	21
Q 5 F	3.620	01
R 4 M	3.275	14
S 4 M	2.137	17
T 4 M	4.551	26
U 4 M	4.103	34
V 5 M	3.068	22
W 5 M	3.310	19
X 5 M	3.172	26
Y 5 M	2.620	23
Z 5 M	2.724	22

	Dull-Stimulating Continuum			Analytical-Nonanalytical Continuum		
Name	Obs. Beh.*	$Cog._l$*	$Cog._i$*	Obs. Beh.	$Cog._l$	$Cog._i$
A	05	4	5	04	5	6
B	06	4	5	05	2	2
C	09	6	5	08	6	5
D	08	4	5	08	4	5
E	10	6	6	07	2	3
F	09	4	5	10	5	6
G	10	3	4	09	3	6
H	05	4	5	04	2	2
I	08	3	4	04	4	5
J	07	3	4	10	5	6
K	09	3	5	09	4	4
L	08	4	5	07	5	6
M	02	2	2	02	2	3
N	07	4	5	05	3	4
O	05	3	3	06	1	2
P	09	3	4	08	4	5
Q	10	4	5	08	3	5
R	04	4	5	07	2	5
S	05	1	3	04	1	2
T	09	3	4	09	3	4
U	09	4	5	09	4	4
V	03	2	4	04	4	5
W	08	2	3	03	3	2
X	03	3	4	03	5	6
Y	05	4	4	08	4	5
Z	08	5	6	06	3	4

*Obs. Beh. = Observed behavior; $Cog._l$ = Cognition measured on a linear scale; $Cog._i$ = Cognition measured via an interview.

	Children's Welfare-Personal Convenience Continuum			Autocratic-Democratic Continuum		
Name	Obs. Beh.	Cog.$_l$	Cog.$_i$	Obs. Beh.	Cog.$_l$	Cog.$_i$
A	04	4	6	05	5	3
B	05	3	3	07	3	2
C	08	6	4	07	4	3
D	08	3	4	08	5	6
E	10	5	5	09	3	4
F	10	4	5	10	3	4
G	10	2	4	10	4	4
H	09	3	4	02	2	3
I	10	5	6	09	5	6
J	10	4	5	07	1	2
K	09	2	4	09	1	2
L	10	5	7	10	3	4
M	05	3	4	09	4	4
N	06	5	6	09	4	6
O	09	3	3	07	2	4
P	10	5	4	08	3	4
Q	10	2	5	10	4	4
R	07	6	6	05	3	4
S	07	1	3	05	3	4
T	10	5	4	08	3	5
U	09	5	6	08	5	4
V	01	5	6	01	5	6
W	05	3	3	01	2	1
X	04	6	6	05	3	3
Y	08	2	2	05	4	4
Z	07	3	4	07	5	5

	Harsh-Kindly Continuum			Stereotyped-Original Continuum		
Name	Obs. Beh.	$Cog._l$	$Cog._i$	Obs. Beh.	$Cog._l$	$Cog._i$
A	04	3	4	04	6	6
B	07	4	3	06	2	3
C	08	5	5	09	4	4
D	09	5	5	09	5	5
E	10	5	6	09	1	5
F	10	5	5	09	5	5
G	10	3	5	10	2	4
H	05	3	4	05	1	2
I	09	5	6	07	3	4
J	10	4	5	08	1	2
K	09	4	5	07	1	3
L	10	5	6	08	5	6
M	08	4	5	09	5	5
N	09	5	6	07	3	4
O	06	5	5	05	2	3
P	10	4	5	10	3	4
Q	09	5	5	09	5	6
R	08	5	6	04	4	5
S	08	4	3	08	0	2
T	10	4	6	08	5	5
U	09	5	5	08	5	5
V	01	5	6	02	5	6
W	03	3	2	04	1	2
X	04	5	4	04	3	5
Y	06	5	5	04	4	5
Z	08	5	5	08	4	5

	Inflexible-Adaptable Continuum			Professional-Aprofessional Continuum		
Name	Obs. Beh.	$Cog._l$	$Cog._i$	Obs. Beh.	$Cog._l$	$Cog._i$
A	04	3	4	05	3	3
B	08	3	5	06	5	6
C	07	6	5	04	4	5
D	09	6	6	08	2	4
E	10	5	6	10	4	5
F	10	5	5	10	5	5
G	09	4	5	09	1	3
H	04	4	4	06	1	2
I	07	4	6	08	5	6
J	08	2	3	10	2	3
K	08	2	3	09	2	3
L	09	5	6	10	4	6
M	06	5	5	08	5	6
N	08	3	4	05	2	2
O	06	5	5	08	1	3
P	08	3	5	08	5	5
Q	10	5	6	10	2	4
R	07	4	5	04	6	6
S	10	5	5	08	2	3
T	08	5	5	09	6	5
U	08	6	6	09	5	6
V	03	4	6	02	4	4
W	04	5	4	09	1	2
X	03	5	3	07	5	5
Y	06	4	5	07	4	6
Z	08	4	5	08	2	3

	Circumbentors-Conformers Continuum			Secure-Insecure Continuum		
Name	Obs. Beh.	$Cog._l$	$Cog._i$	Obs. Beh.	$Cog._l$	$Cog._i$
A	05	5	6	06	5	5
B	04	3	5	06	3	3
C	05	2	3	06	3	4
D	06	3	4	10	3	4
E	08	3	4	10	4	5
F	07	5	5	09	5	5
G	09	3	4	10	3	3
H	04	5	6	08	1	3
I	03	3	4	09	5	6
J	07	1	5	08	1	2
K	07	4	4	09	3	4
L	07	3	4	09	3	5
M	07	1	5	04	6	6
N	04	2	2	09	3	4
O	05	4	4	07	5	5
P	04	4	3	10	4	5
Q	03	3	4	10	5	3
R	04	5	2	07	5	5
S	03	6	6	10	5	5
T	02	5	2	09	5	4
U	07	5	3	09	5	5
V	03	4	4	07	1	1
W	04	6	2	02	0	2
X	09	5	3	03	5	5
Y	09	5	3	03	5	5
Z	03	4	3	03	3	3

	Satisfied-Dissatisfied Continuum		
Name	Obs. Beh.	$Cog._1$	$Cog._i$
A	05	5	5
B	08	2	4
C	03	5	4
D	10	5	4
E	08	5	5
F	10	5	5
G	10	4	5
H	08	1	1
I	09	4	6
J	08	2	3
K	09	4	4
L	10	5	6
M	05	4	5
N	09	1	1
O	09	3	4
P	08	4	4
Q	10	3	4
R	07	6	6
S	10	1	2
T	09	4	5
U	09	6	6
V	06	2	2
W	01	4	3
X	03	5	5
Y	08	4	5
Z	08	4	5