A STUDY OF EXPECTATIONS HELD BY INTERN TEACHERS WITH SELECTED PERSONAL CHARACTERISTICS FOR INTERN CONSULTANT ROLE

Thesis for the Degree of Ph. D.

MICHIGAN STATE UNIVERSITY
GERALD D. INMAN

1970

This is to certify that the

thesis entitled

A STUDY OF EXPECTATIONS HELD BY INTERN TEACHERS WITH SELECTED PERSONAL CHARACTERISTICS FOR INTERN CONSULTANT ROLE

presented by

Gerald D. Inman

has been accepted towards fulfillment
of the requirements for

Doctoral degree in Philosophy

Major professor

Date May 22 1970

O-169

ABSTRACT

A STUDY OF EXPECTATIONS HELD BY INTERN TEACHERS
WITH SELECTED PERSONAL CHARACTERISTICS
FOR INTERN CONSULTANT ROLE

By

Gerald D. Inman

The purpose of this study was to explore the relationship between beginning teacher personal characteristics and preference for supervisory behavior. Specifically the investigation was designed to explore the following major questions. (1) Is there a relationship between intern teachers with varied personal characteristics and their expressed preference for selected supervisory tasks? And, (2) Is there a relationship between intern teachers with varied personal characteristics and their expressed preference for selected supervisory method of operation?

Supervisory tasks were defined as those behaviors which the supervisor may exhibit while working directly with the beginning teacher to improve the quality of instruction afforded the children (i.e., management techniques, planning for learning experiences). Method of

Operation were those processes or methods employed by the supervisor to assist the beginning teacher with problem situations.

One hundred eighty-five Elementary Intern Program students attending Michigan State University were subjects in the study. While teaching full-time under contract to a school district, interns were supervised on a 1 - 6 basis by qualified Intern Consultants. The Minnesota Teacher Attitude Inventory (MTAI), the Rokeach Dogmatism Scale, and Edwards Personal Preference Schedule (EPPS) were administered prior to student teaching and internship as measures of attitude toward children, open-closed mindedness; and personal need pattern, respectively. The Intern Consultant Inventory (ICI), Parts A and B, was administered during the eighth month of the internship year as a measure of expressed preference for intern consultant tasks (Part A) and Method of Operation (Part B). Intern sex was an additional variable studied. Eight null hypotheses were tested using these variables.

The following conclusions were supported:

1. Intern expressed preference for selected supervisory tasks as measured by the ICI and sex were related. Females tended generally to have a greater preference for supervisory tasks than males.

2. No relationship was found between intern expressed preference for selected supervisory tasks as measured by the ICI and open-closed mindedness as measured by the Rokeach Dogmatism Scale.
3. There was a relationship between intern attitude toward children as measured by the MTAI and expressed preference for selected supervisory tasks as measured by the ICI. Interns with more positive attitudes toward children tended to indicate a greater preference for supervisory tasks than did interns with less positive attitudes.
4. There was no relationship found between intern preference for selected supervisory method of operation as measured by the ICI and need pattern as measured by the EPPS.
5. No relationship was found between intern expressed preference for selected supervisory method of operation and sex.
6. This study found no relationship between intern expressed preference for selected supervisory method of operation and his open-closed mindedness as measured by the Rokeach Dogmatism Scale.

7. A relationship was found between intern expressed preference for selected supervisory method of operation as measured by the ICI and his attitude toward children as measured by the MTAI. Interns with a more positive attitude toward children preferred supervisory approach to problem situations which were practical, indirect, and allowed the intern to initiate action.
8. No relationship was found between intern expressed preference for selected supervisory method of operation as measured by the ICI and need pattern as measured by the EPPS.

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A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Elementary Education

1970

ACKNOWLEDGEMENTS

During the course of the doctoral program, counsel has been extended from many sources for which I am deeply grateful. May I acknowledge the support and guidance of Dr. W. Robert Housten, Chairman of my Guidance Committee, whose professional knowledge and insightful evaluations of my work contributed greatly to the completion of this study. I am indebted to Dr. W. Vernon Hicks and Dr. Glenn Berkheimer for their guidance and support during my graduate study. A special note of appreciation is extended to Dr. Robert R. Schmatz who was responsible for my entrance into a doctoral program and served as a source of encouragement throughout.

I am particularly appreciative of my wife Carlene for her love, patience, and sustained encouragement over the several years of the program. To my sons Thomas, Steven, and Gavin, who will come to understand this educational endeavor, I extend a special thanks for their patience and understanding.

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CHAPTER I

NATURE OF THE INVESTIGATION

Introduction

The initial years in teaching influence the teacher throughout his career. The adjustments he makes, the way in which he goes about teaching, and the priorities he gives have a marked effect upon the ultimate teaching style developed.

During this critical period the neophyte teacher faces many problems. Segar explained that "the new teacher is usually ignorant of so many things that are important in teaching that he tends to be overwhelmed by the number of things to be learned all at once when he begins to teach."[1] Recognition of the problems faced by the beginning teacher was also given by D. D. Darland and Roy Edelfelt when they stated that:

> Induction to teaching must be dealt with as a pertinent stage in career development. A new teacher should not be left to the isolation of his own

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[1] G. Bradley Segar, Jr., "Team Supervision," in Partnership in Teacher Education, ed. by E. Brooks Smith, et al. (Washington, D. C.: The American Association of Colleges for Teacher Education, 1968), p. 251.

classroom to succeed or fail depending on his ability, ingenuity, and resilience."[2]

Further, they stressed the need for close guidance during this period as they noted that the new teacher "should be treated for what he is--a beginner--and given the time and assistance he needs to develop his own teaching style."[3]

To provide such assistance, many school districts staff "helping teachers," "tenure coaches," and "consultants." Services offered are varied, and depend to a great extent on the individual style and strengths of the consultant rather than the needs of the beginning teacher. With varied backgrounds and personal characteristics, individual beginning teachers quite likely require different consultant services and different methods of operation by consultants.

The present study was designed to test this premise. Do beginning teachers have a particular preference for supervisory behavior and is this preference based on their personal characteristics? The major assumptions upon which this question rests are: (1) that the beginning teacher has a set of unique personal characteristics, and (2) that these characteristics may influence his preference for supervisory behavior.

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[2]National Commission of Teacher Education and Professional Standards, The Real World of the Beginning Teacher (Washington, D. C.: National Education Association, 1965), p. 7.

[3]Ibid.

The population studied were interns engaged in full time first-year teaching. Each intern was guided by a consultant who, in turn, worked with five or six interns. Although this study is directly related to internship, the discussion which follows has been drawn from literature related to beginning teachers and student teaching. The underlying assumption is that each neophyte, to varying extents, works with a supervisor and faces common teaching problems. Extrapolation of findings beyond the population studied depends upon the nature and amount of supervision, and the commonality of problems faced.

Significance of the Study

Contemporary writers such as Harris,[4] Curtin,[5] Wiles,[6] Crosby,[7] and Heald and Moore,[8] suggest that the fundamental role of supervision is to bring about improved instruction. This definition coincides with the Dictionary of Education which defines supervision as the

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[4]Ben Harris, Supervisory Behavior in Education (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963).

[5]James Curtin, Supervision in Today's Elementary School (New York: Macmillan Co., 1964).

[6]Kimball Wiles, Supervision for Better Schools Englewood Cliffs, N. J.: Prentice-Hall, 1967).

[7]Muriel Crosby, Supervision as Cooperative Action (New York: Appleton-Century-Crofts, Inc., 1957).

[8]James E. Heald and Samuel Moore II, The Teacher and Administrative Relations in School Systems (New York: The Macmillan Co., 1968).

"efforts designated toward providing leadership to teachers and other educational workers in the improvement of instruction."[9]

The improvement of instruction is the common purpose of supervisory behavior as it relates to student teaching, internship, and beginning teaching. "Broadly speaking," stated Olson, "supervision is undertaken for the purpose of helping the student teacher and classroom teacher grow professionally as much and as rapidly as possible in the time available."[10]

Following a study of supervision and in-service training of new teachers, Bond and Smith concluded, "the introduction of beginning elementary school teachers to their new profession is a very haphazard affair at best."[11] Jerome S. Bruner concurred with Bond and Smith's conclusion in a symposium on teacher education. The need for quality supervision was paramount in the conference recommendations which included the following:

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[9]Carter V. Good, ed., Dictionary of Education (New York: McGraw-Hill Book Co., 1945).

[10]Hans C. Olson, "Innovation in Supervision Today," in Partnership in Teacher Education, ed. by E. Brooks Smith, et al. (Washington, D. C.: The American Association of Colleges for Teacher Education, 1968).

[11]George W. Bond and George J. Smith, "First Year of Teaching," The National Elementary Principal, XLVIII (September, 1967), 55-57.

> School systems should take a hard look at the kind of supervision which they have in their schools and the role of the supervisor should be re-examined, especially as it relates to the new teacher.[12]

Emphasis has been placed on individualizing supervisory practices to effectively improve instruction. Combs,[13] reflecting on individualization and personalization in teacher education, forcefully reminded educators of the importance of the person in the educational encounter. Chaltas et al. wrote that the process of supervision must:

> Allow for individualization of instruction so that each intern can continue the process of identification with the profession in ways peculiar to him, including attention to cognitive and affective learnings, through the process of inquiry.
>
> Allow for individualization of teaching style consonant with the intern's personal and professional frame of reference.[14]

Further emphasis by the Association for Student Teaching has been placed on the quality of supervisory behavior and the individualization of beginning teacher

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[12] Jerome S. Bruner, A Symposium on the Training of Teachers for Elementary School, IDEA Occasional Paper (Dayton, Ohio: Kettering Foundation, 1968).

[13] Arthur W. Combs, The Professional Education of Teachers (Boston: Allyn and Bacon, 1965).

[14] John G. Chaltas, Jannene M. Kain, and Horton C. Southworth, "The Supervision of Intern Teachers," Internships in Teacher Education, Forty-seventh Yearbook, The Association for Student Teaching (Washington, D. C.: National Education Association, 1968).

supervision. Entire chapters in the Forty-fifth[15] and Forty-sixth[16] yearbooks of the Association focus on skills needed by supervisors and unique characteristics of beginning teachers.

The chapter in the Forty-fifth yearbook[17] particularly emphasized competencies of supervising teachers. Competencies were grouped into five categories related to: (1) classroom procedures and techniques, (2) working relationships, (3) transition from inactive to active participation, (4) personal traits, and (5) professional and school responsibilities. Discussion concerning the identified competencies stressed the importance of leading each student teacher through the process of teaching within his own personality structure.

"Individualization of Teacher Preparation," a chapter in the Forty-sixth Yearbook of the Association, reported survey results which identified concerns of student teachers. A study of concerns and personal characteristics of student teachers resulted in recommendations

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[15]Karl D. Edwards, "Competencies of the Supervising Teacher," Professional Growth Inservice of the Supervising Teacher, Forty-fifth Yearbook (Washington, D. C.: National Education Association, 1966), pp. 15-43.

[16]Francis F. Fuller, Geneva Hanna Pilgrim, and Elma M. Freland, "Intensive Individualization of Teacher Preparation," Mental Health and Teacher Education, Forty-sixth Yearbook (Washington, D. C.: National Education Association, 1967), pp. 151-87.

[17]Edwards, op. cit.

for adapting teacher preparation programs to the individual needs of student teacher.

Olson was concerned with the need to adapt supervisory behavior to the individual personal characteristics of the trainee.

> Supervisors must work with the situation they find themselves, and no two situations are alike. The factors that must be taken into account are expectations, perceptions, abilities, skills, understanding, facilities, support, and time.[18]

Ruman expresses similar concern when he stated that: "Supervisors of student teaching must understand concepts of learning and development unique to the age group to which most college students belong."[19]

Following the evaluation of a program for preparing educational supervisors at Berea College and the Universith of Kentucky, Ogletree[20] reported that changes in teacher behavior were most closely related to interpersonal warmth of relationship between supervisor and teacher trainee. He further concluded that professional cooperation between supervisor and trainee was based on need

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[18]Olson, op. cit., p. 231.

[19]Edward L. Ruman, "In-service Education of Supervising Teachers and College Supervisors," in Partnership in Teacher Education, ed. by E. Brooks Smith (Washington, D. C.: American Association of Colleges for Teacher Education, 1966), p. 270.

[20]James R. Ogletree, et al., "Preparing Educational Supervisors," Educational Leadership, XX (December, 1962), 163-66.

identification and the prescription of experiences to meet the needs.

Prudence Dyer, recognizing individual characteristics of the teacher trainee, expressed similar concern about the nature of supervision. Following a study of teacher internship programs these questions related to supervisory practices were raised:

> How will assignments be made?
>
> Will his intern be prepared in competencies comparable or complimentary to the supervisor's qualifications?
>
> Will there be an attempt to consider his temperament and that of the intern for optimum compatibility?[21]

Reacting to the questions raised by Dyer, Erickson stated that "putting the right instructor with the right student may be more than a matter of faith in fellowman and trust in luck."[22] Following a study of supervisory behavior with student teachers and beginning teachers, Erickson concluded that:

> To a slight extent, supportive behavior produced more desired behavior than did critical behavior. However, the effectiveness of the style seemed to be related to the personality of the subject: some subjects grew under rigorous criticism, some wilted under generous support.[23]

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[21]Prudence Dyer, "Teacher Internship Programs in NCA Institutions," North Central Association Quarterly, XLIII (Fall, 1968), 232.

[22]John E. Erickson, "On the Development of School Supervisory Personnel: A Case in Point," The Journal of Teacher Education, XX (Spring, 1969), 69.

[23]Ibid., 68.

Within the literature related to supervising beginning teachers clear recognition is given to: (1) the problems the beginner must face, (2) the concern for the quality of supervision afforded the beginning teacher, (3) the need to individualize supervisory practices, and (4) the unique personal characteristics of the beginning teacher. Little research, however, has been undertaken to relate supervisory behavior with beginning teacher personal characteristics.

Statement of the Problem

Based on literature related to individual differences among beginning teachers and behaviors of supervisors, clearly there is a need to systematically study beginning teacher personal characteristics as they may relate to their preference for supervisory behaviors. Stated as a question, the posed issue was: Is there a relationship between beginning teacher personal characteristics and their preference for selected supervisory behaviors? The specific personal characteristics included were: (1) sex, (2) open-closed mindedness, (3) attitude toward children, and (4) need pattern. The rationale for this inclusion is found in the following sections.

Beginning Teacher Personal Characteristics

To identify personal characteristics of beginning teachers which may be related to preference for supervisory behavior a search of the related literature was

made. The result of this search is reported in the following pages.

Research related to teacher personal characteristics has been descriptive, related to teacher effectiveness, or teacher selection (see Gage[24] and Ebel[25]). Of particular importance to individualization of supervisory practices as they relate to personal characteristics of beginning teachers are personal needs.

Studies which have attempted to identify needs of beginning teachers have often used the Edwards Personal Preference Schedule (EPPS). The EPPS was designed to assess the relative strengths of fifteen manifest needs selected from Murray's[26] need system. They are: (1) achievement, (2) deference, (3) order, (4) exhibition, (5) autonomy, (6) affiliation, (7) intraception, (8) succorance, (9) dominance, (10) abasement, (11) nurturance, (12) change, (13) endurance, (14) heterosexuality, and (15) aggression.

Examination of the research using the EPPS reveals that most studies compared needs for two or more teacher classifications. Jackson and Guba compared the needs of

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[24]N. L. Gage, ed., The Handbook of Research on Teaching (Chicago: Rand McNally and Company, 1963), pp. 506-76.

[25]Robert Ebel, ed., Encyclopedia of Educational Research (New York: Macmillan Co., 1969).

[26]H. A. Murray, Explorations in Personality (New York: Oxford Press, 1938).

elementary (male, female) teachers and secondary (male, female) teachers with the norms reported in the manual.[27] Deference and heterosexuality were significant between all four teacher groups and their respective population norms. Elementary females scored significantly higher on order and endurance needs and lower on exhibition than the norm group.

Comparisons were also made between EPPS need scores of experienced and inexperienced teachers by Hamachek and Mori.[28] Their study revealed that female neophyte teachers scored significantly higher than veterans on heterosexuality, exhibition, and change; they were lower on endurance, order, and deference. Goldman and Heald[29] discovered that experience in teaching was accompanied by increases in order and dominance needs and a decrease in the need for abasement.

Comparisons using student teachers on the EPPS were made by Scandrette.[30] His comparison of elementary and

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[27]Phillip W. Jackson and Egon G. Guba, "The Need Structure of In-service Teachers: An Occupational Analysis," The School Review, LXV, No. 2 (1957), 176-92.

[28]Don E. Hamachek and Tokako Mori, "Need Structure, Personal Adjustment, and Academic Self-concept of Beginning Education Student," Journal of Educational Research, LVIII (December, 1964), 158-62.

[29]Harvey Goldman and James E. Heald, "Teacher Need Patterns and the Administrator," Bulletin of the National Association of Secondary School Principals, LV (May, 1962), 93-104.

[30]Onas Scandrette, "Differential Need Patterns of Women Elementary and Secondary Level Student Teachers," Journal of Educational Research, LV (May, 1962), 376-79.

secondary level student teachers revealed that secondary student teachers scored significantly higher in autonomy, dominance, and aggression need areas and elementary student teachers high in affiliation. Southworth[31] using a similar sample found greater needs for abasement, affiliation, succorance, and nurturance in early elementary preference students and greater needs for achievement, aggression, and exhibition in later elementary preference students when the two groups were compared.

Corman and Olmsted compared Michigan State University interns with students enrolled in the regular on-campus teacher education program on the EPPS. They reported differences on only three dimensions: heterosexuality, endurance, and order scales. These differences were explained, "by the presence of a greater number of older women among the STEP (Student Teacher Education Program) students."[32]

More recently Conley[33] compared need patterns of females who chose internship and those who selected

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[31]Horton C. Southworth, "A Study of Certain Personality and Value Differences in Teacher Education Majors Preferring Early and Later Elementary Teaching Levels" (unpublished Ed. D. dissertation, Michigan State University, 1962).

[32]Bernard R. Corman and Ann G. Olmsted, The Internship in the Preparation of Elementary School Teachers (East Lansing, Mich.: Bureau Education Research, Michigan State University, 1964), p. 98.

[33]James L. Conley, "A Study of Selected Biographical Data, Personality Characteristics and Attitudes of Elemantary Intern Program Students at M.S.U." (unpublished doctoral dissertation, Michigan State University, 1968).

student teaching at Michigan State University. He found that females who chose internship indicated higher needs than females in the student teaching program for the areas of deference, autonomy, abasement, and endurance, but lower needs of succorance and heterosexuality as measured by the EPPS.

Of the research reported there is clear indication that various categories of teachers differ significantly in need patterns. Elementary teachers scored significantly higher in six different need categories than the groups with which they were compared. Need patterns differed significantly for male and female teachers and experienced and inexperienced teachers. Differences were also reported between student teachers and interns by two different researchers for five need categories.

The difference in need patterns reported herein parallel the findings reported by Hogan. He stated that, "teachers as a group do have measurable occupational distinctions in terms of manifest needs and behavior patterns."[34] He found that among the major variables of significance were: age and experience, marriage, early experience with teaching, and academic success.

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[34]Earl Eugene Hogan, "A Study of Differences in the Perception of Elementary Teacher Personality Structure" (unpublished doctoral dissertation, Michigan State University, 1963), p. 22.

No research has been reported relating intern teachers' need patterns with supervisory behavior. It seems reasonable to assume, however, that intern teachers may prefer specific supervisory behaviors because of their individual need pattern.

Another important personality characteristic of beginning teachers which is related to supervisory behavior is openness to change. By previous definition the purpose of supervision is to improve instruction. The underlying assumption on which this definition rests is that the supervisor will bring about desirable behavior change in the teacher with whom he works. This leads to a second assumption that the trainee is "open" to change.

This personality dimension refers to the relative "openness or closedness" of a person's belief system. In Rokeach's terms a system was open to the extent that the person could receive, evaluate, and act on relevant information from the outside on its own intrinsic merits, unencumbered by irrelevant factors in the situation arising from within the person or from outside.[35]

In a study of student teachers who were below average in openness before and after student teaching, Chester

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[35]Milton Rokeach, The Open and Closed Mind (New York: Basic Books, Inc., 1960), p. 395.

Freeze[36] reported that no positive change in openness occurred. He did find, however, a negative effect on the openness of student teachers placed with supervising teachers who were also below average in openness.

A follow-up study conducted by Bills et al.[37] involved student teachers from six different colleges. The major conclusion drawn from this study was that significant negative change occurred in the openness of student teachers involved in the study. A second major conclusion was that negative change in openness of student teachers was related to openness of their supervising teachers. A third conclusion was that negative change in openness was greatest for more open students and occurred in relationship with more open supervising teachers.

Johnson[38] conducted a study of student teacher dogmatism as a direct follow-up of those studies conducted by Freeze and Bills et al. Johnson hypothesized that: (1) students who scored lower on the pre-test of dogmatism

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[36]Chester R. Freeze, "A Study of Openness as a Factor in Change of Student Teachers" (unpublished doctoral dissertation, University of Alabama, 1963).

[37]Robert E. Bills, Virginia M. Macagoni, and Richard J. Elliott, Student Teacher Personality Change as a Function of the Personalities of Supervising and Cooperating Teachers, Final Report on Project S-020, U. S. Office of Education (Tuscaloosa, Ala.: University of Alabama, August, 1964).

[38]James A. Johnson, "Change in Student Teacher Dogmatism," The Journal of Educational Research, LXVV (January, 1969), 224-26.

than their supervising teacher would show a gain in dogmatism on a post-test, and (2) that those who scored higher than supervising teachers on a pre-test would show a decline in dogmatism. His hypotheses were supported by the data, leading to the conclusion that the degree of open-closed mindedness of student teachers may be a function of dogmatism of their supervising teachers.

The studies conducted by Freeze, Bills et al., and Johnson report that the supervising teacher has an effect upon the belief system of the student teacher. This suggests that the student teacher may have a preference for supervisory behavior, and further that specific focused supervisory behaviors may be more effective.

Other studies related to open-closed mindedness have described veteran teachers, compared college students with experienced teachers, compared prospective teachers with experienced teachers, religious preference, and other demographic data.

No research relating open-closed mindedness of beginning teachers to supervisory behavior has been reported. In the absence of such research a study of open-closed mindedness of beginning teachers in relation to supervisory behavior may be an important contribution to the literature.

In studies of teacher's personality and characteristics, sex is a variable which is often considered.

Getzels and Jackson[39] reviewed over 150 articles related to teacher attitudes, values and interests, adjustment, needs, preference, and personality factors. Sex was a variable of interest in over half of the studies reported.

Studies previously reported related to teacher need patterns as measured by the EPPS have also considered sex as a variable. Differences in need patterns between males and females were reported in those studies where sex was investigated. Differences in emotional maturity between male and female teachers at both the elementary and secondary levels was reported by Ryans[40] in his Teacher Characteristics Study. He also found that at the elementary level, men and women teachers differed in four of the personal-social characteristics measured by Ryan's Teacher Characteristics Schedule.[41]

The above does not represent an exhaustive review of the literature related to personal characteristics of male and female teachers. The studies reported, however, are considered representative of differences which may exist between male and female elementary teachers. They

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[39]J. W. Getzels and P. W. Jackson, "Teacher's Personality and Characteristics," in Handbook of Research on Teaching, ed. by N. L. Gage (Chicago: Rand McNally and Company, 1963).

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

[41]Ibid., p. 388.

suggest that a study relating supervisory behaviors to personal characteristics should consider sex as a variable of interest.

Among the teacher personality dimensions that may be related to preference for supervisory behaviors which have been reviewed thus far are open-closed mindedness, measured need pattern, and sex. A fourth personality characteristic which may also relate to beginning teacher preference for supervisory behaviors is attitude toward children.

Teachers' attitudes toward children as measured by the Minnesota Teacher Attitude Inventory (MTAI) are

> . . . those attitudes of a teacher which predict how well he will get along with pupils in interpersonal relationships, and indirectly how satisfied he will be with teaching as a vocation.[42]

A study by Leeds[43] seemed to demonstrate that teacher-pupil relations in the classroom were associated with the kinds of teacher attitude measured by the MTAI. Using a random sample of 100 teachers, Leeds correlated teacher-pupil rapport ratings of teachers by principals, by Leeds himself on the Baxter's Rating Scale of the teacher's Personal Effectiveness, and by pupils on a 50-item "My Teacher" questionnaire with teacher scores

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[42]Walter W. Cook and Carroll H. Leeds and Robert Callis, The Minnesota Attitude Inventory: Manual (New York: Psychological Corporation, 1951), p. 3.

[43]Getzels and Jackson, op. cit., pp. 512-15.

on the MTAI. A multiple correlation of .595 between the Inventory and the ratings was obtained, significant beyond the .01 level.

An examination of the literature related to teacher attitude reveals that the MTAI has been used in relation to numerous selected teacher characteristics. The MTAI has distinguished between sex, teaching level, years of teaching experience, nature of subject matter taught, and age.[44]

No research has been reported which relates teacher attitude toward children with preference for supervisory behavior. However, the characteristics associated with teachers who rank high and those who rank low on the MTAI seem to indicate that such a relationship may exist.

A teacher ranking high on the MTAI scale is characterized by being able to maintain a state of harmonious relations with his pupils. Situations requiring disciplinary action should rarely occur. Inadequacies and shortcomings in both teacher and pupils should be admitted frankly as something to be overcome, not ridiculed. Abilities and strengths should be recognized and used to the utmost for the benefit of the group.

At the other extreme of the scale is the teacher who attempts to dominate the classroom. He may be

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[44]C. H. Leeds, "A Scale for Measuring Teacher-Pupil Attitudes and Teacher-Pupil Rapport," Psychological Monograph, LXIV, No. 6 (1950).

successful and rule with an iron hand, creating an atmosphere of tension, fear and submission; or he may be unsuccessful and become nervous, fearful and distraught in a classroom characterized by frustration, restlessness, in-attention, lack of respect, and numerous disciplinary problems. In either case both teacher and pupils dislike school work; there is a feeling of mutual distrust and hostility.

The differences between teachers at the extreme ends of the scale cannot be completely explained in terms of attitude toward children, toward teaching, toward the school, etc. The differences are the result of numerous factors, including academic and social intelligence, general knowledge and abilities, social skills, personality traits, values, and teaching techniques. However, it can be assumed that the attitudes of a teacher are the result of the interaction of this multitude of factors, and therefore may aid in predicting the type of social atmosphere a teacher will maintain in the classroom.

A logical assumption which follows is that teacher attitude may influence the kind of problems a beginning teacher may experience, and therefore, determine his preference for supervisory behavior. Although there is no research evidence that indicates a relationship between teacher attitude and preference for supervisory

behavior, such a study may contribute to knowledge of beginning teachers.

Definition of Terms

Elementary Intern Program (E.I.P.) is a four calendar year undergraduate teacher education program that prepares elementary and special education teachers using internship as the culminating practical experience offered by the College of Education at Michigan State University.

Intern teacher is contracted and paid by a local board of education and assigned a regular teaching position (kindergarten through eighth grade) for a school year, supervised by an intern consultant, and is a student enrolled at Michigan State University.

Intern Consultant is assigned to supervise intern teachers on a full-time basis and regularly visits the intern's classroom. He offers support, guidance, instruction, demonstrates lessons, teaching ideas, provides materials, and other assistance to the employed intern teacher. Consultants are employed by the local school district through cooperative agreement with Michigan State University College of Education.

Expressed Preference is choosing or selecting from alternatives on a basis of an individual's unique system of priorities.

Selected intern consultant tasks (Part A of the Intern Consultant Inventory) are those behaviors which the intern may exhibit while working directly to improve the quality of instruction afforded the children in the intern teachers' classroom. Specifically they include, Classroom Management Techniques, Conditions of Learning, Planning Learning Experiences, Evaluation of Learning Experiences, Analyzing Teaching Behavior, and Supportive Consultant Behavior.

Method of Operation (Part B of the Intern Consultant Inventory) the procedures, processes, or methods employed by the consultant to assist the intern with a problem situation. Specifically they are: (a) approach to, (b) degree of active participation in, and (c) degree of directiveness of assistance to the intern in a problem situation.

Research Hypotheses

The purpose of this study was to investigate two major questions:

I. Is there a relationship between intern teachers with varied personal characteristics and their expressed preference for selected supervisory tasks?

II. Is there a relationship between intern teachers with varied personal characteristics and their expressed preference for selected supervisory method of operation?

To test specific dimensions of question I above, the following questions were explored: (1) Is there a relationship between intern expressed preference for selected supervisory tasks and sex? (2) Is there a relationship between intern expressed preference for selected supervisory tasks and open-closed mindedness? (3) Is there a relationship between intern expressed preference for selected supervisory tasks and intern need pattern? (4) Is there a relationship between intern expressed preference for supervisory tasks and attitude toward children?

To test specific dimensions of question II above, the following questions were explored: (1) Is there a relationship between intern expressed preference for selected supervisory method of operation and sex? (2) Is there a relationship between intern expressed preference for selected supervisory method of operation and open-closed mindedness? (3) Is there a relationship between intern expressed preference for selected supervisory method of operation and intern need pattern? (4) Is there a relationship between intern expressed preference for selected supervisory method of operation and attitude toward children?

Statistical Hypotheses

Specifically, this study was designed to test eight null hypotheses, each of which is a restatement of the previous questions.

Hypothesis I	There is no relationship between intern expressed preference for selected supervisory tasks and sex.
Hypothesis II	There is no relationship between intern expressed preference for selected supervisory tasks and his measured open-closed mindedness.
Hypothesis III	There is no relationship between intern expressed preference for selected supervisory tasks and his measured attitude toward children.
Hypothesis IV	There is no relationship between intern expressed preference for selected supervisory tasks and his measured need pattern.
Hypothesis V	There is no relationship between intern expressed preference for selected supervisory method of operation and sex.
Hypothesis VI	There is no relationship between intern expressed preference for selected supervisory method of operation and his measured open-closed mindedness.
Hypothesis VII	There is no relationship between intern expressed preference for selected supervisory method of operation and his measured attitude toward children.
Hypothesis VIII	There is no relationship between intern expressed preference for selected supervisory method of operation and his measured need pattern.

Summary of Procedures

Population

The population included 185 of 191 E.I.P interns at Michigan State University who: (1) completed the elementary methods block at their respective E.I.P Teacher Education Centers, (2) completed student teaching, (3) were in their final term of internship during Spring, 1969, (4) were supervised by an intern consultant and, (5) on whom complete sets of data were collected. A complete description of the study population is made in Chapter II.

Data Collection

Data on the Edwards Personal Preference Schedule, the Rokeach Dogmatism Scale, and the Minnesota Teacher Attitude Inventory were collected during the E.I.P students first week at the center, September, 1967 or January, 1968. All students completed these instruments prior to any professional educational experiences, including student teaching and internship.

The Intern Consultant Inventory (ICI), Parts A and B, were administered to all interns in the study population as a measure of expressed preference for intern consultant tasks (Part A) and method of operation (Part B). The subjects indicated their individual perceptions by responding to scaled continua on the Intern Consultant Inventory and placing their responses on machine-scoreable answer sheets. The ICI was administered

during the month of May, 1969, at the conclusion of a full-year of supervised internship.

Instrumentation

The Intern Consultant Inventory was constructed to elicit subjects' perceptions of (1) preference for and frequency of selected intern consultant tasks; and (2) preference for the perceived actual intern consultant method of operation. Only the preference scale was used in this study.

The instrument consisted of two distinct parts, each of which had several sub-categories. Part A was designed to present a consultant behavior followed by two continua, one for preference and one for frequency. Subjects responded on machine scoreable answer sheets indicating their perceptions of preference and frequency of occurrence for the specific consultant behavior. Six consultant tasks were represented by four consultant behavioral descriptions. The sub-categories of consultant tasks were: (1) Classroom Management Techniques, (2) Conditions of Learning, (3) Planning for Learning Experiences, (4) Evaluation of Learning, (5) Analyzing Teaching Behavior, and (6) Supportive Consultant Behavior. Part B presented five problem situations typically encountered by first year teachers. Each situation was followed by six continua; three for preference and three for perceived actual intern consultant method of operation. The

sub-categories of consultant method of operation were: (1) Theoretical-Practical, (2) Intern-Intern Consultant Actuator, and Directive-Non-Directive. Intern teachers' responses to the preference scale for Parts A and B were used in this study.

The Rokeach Dogmatism Scale was designed to measure the relative "openness" or "closedness" of a person's belief systems. The short form of the Rokeach Scale used in this study took ten minutes to complete. The subjects indicated disagreement or agreement with each item on a scale ranging from -3 to +3 with the zero point excluded to force responses toward agreement or disagreement.

The Edwards Personal Preference Schedule (EPPS) is a standardized instrument to access the relative strengths of fifteen manifest needs which together form a need profile. Individuals respond to the EPPS by indicating which of two statements is more characteristic of himself. Profiles of the fifteen need scores are plotted and the relative strengths of each can be examined.

The Minnesota Teacher Attitude Inventory developed at the University of Minnesota was designed to measure teachers' attitudes toward children. The instrument contains 150 items to which the subject responds by indicating his choice of five possible alternatives ranging from strong agreement to strong disagreement. "Right and wrong" answers are keyed and weighed based on the results of the validation procedure. Possible total scores range

from -150 to +150 with higher scores indicating more favorable attitudes toward children and school work.

Analysis Procedures

The multi-factorial nature of the instrumentation used in this study required two procedures for the analysis of the data: (1) multiple regression analysis, and (2) canonical correlation.

A multiple regression analysis was performed to determine the strength of the relationship for six of the hypotheses. For hypotheses I, II, and III, sex, open-closed mindedness, and attitude toward children, were predicted from the six categories of intern preference for consultant tasks.

For hypotheses V, VI, and VII, sex, open-closed mindedness, and attitude toward children were predicted from the three categories of intern preference for intern consultant method of operation. A multiple regression equation was computed for each hypothesis.

For each of the hypotheses above, an F test was applied to test the statistical significance of the relationship between the dependent and independent variables.

A canonical correlation analysis was performed for testing hypotheses IV and VIII. For hypothesis IV, measured need pattern (15 manifest needs of the EPPS) was predicted from six sub-categories of intern preference for intern consultant tasks. For hypothesis VIII,

measured need pattern was predicted from the three categories of intern preference for intern consultant method of operation.

For hypotheses IV and VIII a chi-square test was applied to test the statistical significance of the relationship between the dependent and independent variables.

The level of rejection or failure to reject the null hypotheses of no relationship was the .05 level of confidence.

Plan of Presentation

In Chapter II the research design is outlined, the instruments of the study delineated, the population described, and methods of research discussed. The analysis of data is detailed in Chapter III, while the final chapter includes the summary of findings, conclusions, implications for teacher education, and further research.

CHAPTER II

PROCEDURES OF THE STUDY

Introduction

The primary purpose of this chapter is to describe the research design of the study. The chapter is organized into six sections: (1) description of the Elementary Intern Program, (2) selection of the study population, (3) a description of the study sample, (4) instrumentation, (5) data collection process, and (6) the statistical analysis.

The Elementary Intern Program

The Elementary Intern Program (E.I.P.)[1] was a four calendar year elementary teacher preparation program sponsored by Michigan State University in cooperation with community colleges and public schools. Upon completion of four years of study including the equivalent of three five-week summer terms, the successful teacher candidate was awarded a Michigan Elementary Provisional Teaching Certificate by the State Board of Education and a baccalaureate degree from Michigan State University.

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[1] See Table 2.1 for essential characteristics of the program.

TABLE 2.1.--A summary of the Michigan State University Elementary Intern Program.

YEAR OF PROGRESS	FIRST YEAR	SECOND YEAR	THIRD YEAR					FOURTH YEAR
			Summer school	Fall term	Winter term	Spring term	Summer school	School year
LOCATION OF STUDIES	Cooperating Community College, MSU, or other colleges		MSU Campus	MSU Campus	Off-campus EIP Center	EIP Center & Area Schools	MSU Campus	EIP Center area, Classrooms in Cooperating School Districts
TIME ALLOTMENT	Two Academic Years		10 week term	10 week term	10 week term	10 week term	5 week term	School year
ACADEMIC AREA OF STUDY	Basic Courses Liberal Arts		Electives, toward majors & minors (Liberal Arts)	Electives, toward majors & minors (Liberal Arts)	Methods of Teaching in Reading, Math, Sci., Lang. Arts, Social St.	Individual & the School, Indept. Study, Pre-intern & Student Teaching	Electives, toward majors & minors (Liberal Arts)	Internship (with consultant assistance School & Society
TERM CREDITS	45 (plus Phys. Ed.)	45	15	14	18	16	10	17
CUMULATIVE CREDITS	45	90	105	119	137	153	163	180 (plus Phys. Ed.)

Upon Completion: A. B. Degree
Michigan State University — 180 Term Credits (plus Phys. Ed.)

Michigan Certification — One major (36 term credits)
Two minors (23 term credits each)

The student completed the first two years of study in liberal arts and general education areas at any accredited community college or university. Students who met entrance requirements at Michigan State University could transfer 96 term credits which applied toward a program of study. Following completion of the sophomore year the student attended a ten-week summer session at Michigan State University earning an additional 15 term hours of liberal arts credit.

Beginning in the fall of the third calendar year one additional term at Michigan State University was devoted to liberal arts study. During terms in residence at an off-campus teacher education center, the student studied teaching methods integrated with student teaching experience. During this sequence student observation and participation experiences occurred in elementary classroom of cooperating public school districts. Course work was taught by Michigan State University faculty assigned to the center while an outstanding classroom teacher and the MSU faculty resident coordinator supervised the student teaching experience. The E.I.P. student earned a total of thirty-three term credits during this period. Following the third calendar year he returned to the Michigan State University campus where ten credits were earned in the liberal arts during a five-week summer term.

At the end of the third calendar year the typical student had completed over 90 per cent of his course work including a 36 term credit major and two 23 term credit minors. In addition, the student had completed most required professional education courses, student teaching, and six months experience in various elementary classrooms under the supervision of one or more highly qualified teachers.

The fourth academic year was devoted to a paid intern teaching experience. The student was placed under contract with a public school district to teach in an elementary, special education (with appropriate training), or middle school classroom. During the 1968-69 school year the average stipend paid an intern teacher was approximately $4,300.

Intern teachers were charged with the responsibility for the operation of a public school classroom with the guidance from an intern consultant. Direct supervision was provided by the consultant who, typically, spent an average of one day per week in the intern's classroom. Supervision was also provided by the resident university faculty member and the school principal, however their involvement was less frequent. During this experience an intern attended an evening class each week studying the sociological foundations of education. In addition, a frequent practice in some E.I.P centers was one

meeting per month of an informal seminar devoted to practical teaching problems.

Selection of the Study Population

The students selected as subjects for this study were intern teachers enrolled in the Michigan State University Elementary Intern Program, Spring term, 1969. The assumptions underlying the selection of this population were as follows:

1. Cooperation and interest of the E.I.P faculty: a necessary prerequisite to a successful study of a large sample using complex testing procedures.
2. Problem of this study: of particular interest was research related to the Michigan State University Elementary Intern Program. The research in internship has been limited.
3. Tenure of the intern-intern consultant working relationship: the intern had worked with the intern consultant for almost a year which provided the intern more information related to consultant supervisory behavior.
4. Belief that the intern held expectations for the intern consultant role: actual experience in working with the consultant and teaching may have provided the intern with a particular preference for certain consultant supervisory behaviors.

5. Internship as a full-time teaching experience: suggests that the intern may have teaching problems characteristic of first-year teachers.
6. Unique individual characteristics: research in E.I.P. has identified interns as having particular personal characteristics similar to first-year teachers. Of interest in this study are selected personal characteristics of the intern.

The intern-teacher subjects represented nearly the entire population of intern teachers involved in the Elementary Intern Program for the 1968-1969 academic year. One hundred eighty-five out of a total of 191 interns participated in the study.

The subjects of this study, while closely approximating the specific population of interest, were treated as a sample. It was assumed that there may have existed a population in teacher education of elementary teachers from which these subjects could be considered to be a representative sample. If this assumption is accepted, then the results could be generalized to encompass other comparable programs, of which E.I.P. may be representative in a larger universe in teacher education.

Description of the Study Population

During the 1968-69 school year, 191 interns were teaching in elementary school classrooms and enrolled in E.I.P. Of this number, 185 or 97 per cent of the intern

population participated in this study. This number included 154 female interns or 83 per cent and 31 male interns or 17 per cent. Corman and Olmsted[2] reported in 1964 that 23 per cent of E.I.P. interns in their study were male. There appeared to be some stability over time in percentage of males selecting E.I.P.

Data were gathered beginning Fall Term, 1967, on the 1968-69 E.I.P. class. These data described selected personal characteristics of interns at entrance into the program. Of the 214 interns who responded to the original 1967 demographic questionnaire, 185 or 86 per cent completed the program twenty-one months later. Selected personal characteristics describing 185 (or 100 per cent) of this study are reported below.

Table 2.2 includes a description of the age distribution of intern subjects. Approximately 77 per cent of the intern population fell in the twenty-one to twenty-five age range near the completion of their internship year. The mean age of interns included in this study was twenty-four and one-half years.

In Table 2.3, the intern sample is described by grade point average at entrance to the program. All interns, including six in the 1.50 to 1.99 range, completed the program. Michigan State University requires a 2.00 accumulative grade point average by a student to qualify

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[2]Corman and Olmsted, op. cit., p. 22.

TABLE 2.2.--Age distribution* of the intern population, 1969.

Subjects	Age Groups						
	21-25	26-30	31-35	36-40	41-45	46-50	Over 50
Number	136	8	11	14	6	4	1
Percent	77	4	6	7.5	3	2	.5

*Corrected by 24 months.

TABLE 2.3.--Distribution of intern population by grade point average at entrance to the Elementary Intern Program, 1967.

Subjects	Grade Point Average Range--4.0 Scale				
	1.50-1.99	2.00-2.49	2.50-2.99	3.00-3.49	3.50-4.00
Number	11	67	55	33	6
Percent	6	39	32	19	4

for student teaching. Six students very likely received high grades for methods of teaching courses to qualify for student teaching, or special arrangements were made excusing them from this college requirement. The bulk of the students, 71 per cent, were within the 2.00 to 2.99 grade point average range, while the mean for all interns was 2.59.

In Table 2.4 is described the distribution of interns by colleges attended. About 48 per cent of the interns had attended another college for one or two years.

TABLE 2.4.--Distribution of intern population by colleges attended.

Subjects	Attended only MSU	One year or less at another college	1-2 years at another college	More than 2 years at another college
Number	38	9	87	48
Percent	21	5	48	26

About 26 per cent attended another college for more than two years. Together, 74 per cent of the intern subjects attended another college for more than one year.

Annual family income distribution is shown in Table 2.5. About 35 per cent of the interns in this study came from families where incomes ranged from $10,000 to $15,000. Most interns or about 74 per cent came from families where incomes ranged from $5,000 to $15,000.

TABLE 2.5.--Distribution of intern population by annual family income.

Subjects	Family Income Ranges				
	Less than $5,000	$5,000 to $7,499	$7,500 to $9,999	$10,000 to $15,000	More than $15,000
Number	20	35	29	60	24
Percent	12	21.5	17.5	35	14

Table 2.6 includes information on type of pre-college community where interns resided. The intern population represented a broad range and rather evenly distributed sample of each type of community listed. Slightly more than half of the interns came from a metropolitan center with its suburb--and from a large city with its suburb. The largest percentage of interns in this study, however, came from medium-sized cities.

TABLE 2.6.--Distributions of interns by pre-college community type.

Type of Community	Number	Percent
Metropolitan Center (City of more than 500,000)	28	15
Suburban Community close to Metropolitan Center	29	16
City (100,000 - 500,000)	34	19
Suburban Community adjacent to City	10	5
Medium-sized City (10,000 - 100,000)	41	22
Small Town (2,500 - 10,000)	26	14
Rural Community (2,500 or less) or on Farm	17	9

A description of the marital status of interns in this study is presented in Table 2.7. The most dramatic change in marital status occurred within the single to married categories. The highest percentage of students upon entry and exit were in the single status. During

the two years encompassed by this study, nearly 21 per cent of single subjects married. Presumably those already married remained married, while two of those separated at entry were divorced by exit. Two pairs of interns were married to each other while participating in E.I.P., while one pair was married to each other at entry.

TABLE 2.7.--Marital status distribution of students entering and near exit of the Elementary Intern Program, 1969.

Marital Status	Subjects			
	At entry 1967		Near exit 1969	
	Number	Percent	Number	Percent
Single	135	74	101	54
Married	41	22	80	42.8
Separated	3	2.5	1	.5
Divorced	2	1	4	2.2
Widowed	1	.5	1	.5

Table 2.8 contains a distribution of the number of children for married interns in this study. All of the 41 married students at entry to E.I.P. reported having one or more children. Nearly four-fifths had three or more children.

Ninety-five per cent of the interns followed the regular elementary education curriculum at Michigan State University while five per cent selected an area of special education. The regular curriculum prepares classroom

TABLE 2.8.--Distribution of children for married intern teachers entering the Elementary Intern Program, 1967.

Number of Children	Married Interns Response
One	7
Two	7
Three	14
Four	3
Five	7
Six	3

teachers for grades kindergarten through eighth. Special education areas were deaf and hard of hearing, blind, mentally retarded-trainable, and mentally retarded-educable.

Instrumentation

To test the hypotheses posed by this study, the following instruments were administered: (1) Intern Consultant Inventory, (2) Rokeach Dogmatism Scale, (3) Edwards Personal Preference Schedule, and (4) Minnesota Teacher Attitude Inventory.

Intern Consultant Inventory

An extensive search of the literature for an appropriate standardized instrument to measure the variables of interest in this study failed to yield positive results. No suitable measuring device was found to be available, and as a result, an instrument was constructed.

To test the hypotheses of this study, the Intern Consultant Inventory[3] was developed in collaboration with a colleague. Each contributor to construction of the instrument previously had served as an intern consultant in E.I.P. for three years. First-hand experience as an occupant in the role was helpful in developing items for categories describing intern consultant tasks and methods of operation. This experience was helpful also in developing both items and categories that were believable, representative, and typical of the intern consultant role.

The Intern Consultant Inventory (ICI) was developed in two distinct sections. Part A of this instrument was designed to measure perceptions of (1) preference for selected intern consultant tasks, and (2) frequency of occurrence of selected intern consultant tasks. Part B of the instrument was designed to measure perceptions of (1) preference for selected intern consultant method of operation, and (2) the most likely intern consultant method of operation.

Of interest in this study was intern preference for selected intern consultant tasks and method of operation. Although the instrument was designed to measure other variables, they were not of interest in this study. The instrument in its entirety is presented in the appendix;

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[3]A copy of the instrument used in this study is found in Appendix I.

however, discussion of the instrument will be limited to the preference measurement of Parts A and B.[4]

Specifically, Part A consisted of six categories based on representativeness of intern consultant supervisoral behaviors in working with intern teachers within the classroom. The categories selected were (1) Classroom Management Techniques, (2) Conditions of Learning, (3) Planning for Learning experiences, (4) Evaluation of Learning, (5) Analyzing Teaching Behavior, and (6) Supportive Consultant Behaviors.

In Table 2.9 the organization and presentation of Part A of the instrument is illustrated. Each of the six categories consisted of four behavioral descriptions of intern consultant tasks. Each of the four behavioral tasks were followed by two continua. The first continuum was designed to measure degree of preference for that specific intern consultant behavior: the variable of interest in this study. The second continuum was designed to measure frequency of occurrence for that same specific intern consultant behavior. Responses on frequency of occurrence were not employed in this study. The sequence presented in Table 2.9 was repeated four

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[4]For a description of the complete instrument, see: Thomas C. Fitch, "Role Expectations for Intern Consultant: Views of Intern Teachers and Intern Consultants in the Michigan State University Elementary Intern Program" (unpublished Ph. D. dissertation, Michigan State University, 1969).

TABLE 2.9.--The organization and presentation of preference and frequency scales under the behavioral description of consultant tasks within a category on Part A of the Intern Consultant Inventory.

Category: Classroom Management Technique

Behavioral Description: The consultant urges the intern to give continued attention to ventilation, lighting, seating, and other physical conditions within the intern's classroom.

Preference Item: 1.	A	B	C	D	E
	Definitely not preferred behavior				Very highly preferred behavior
Frequency Items: 2.	A	B	C	D	E
	Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

times per category and followed across the six categories for Part A (see Table 2.10).

Part B of the Intern Consultant Inventory presented five problem situations typically encountered by interns during their first year of teaching. The categories for selected intern consultant method of operation were Theoretical-Practical, Intern-Intern Consultant Actuator, and Directive-Non-Directive. (See Appendix I for ICI Parts A and B category definition and item numbers.) Respondents estimated their preference for selected consultant method of operation. This resulted in the use of three continua for each problem situation (see Table 2.10).

TABLE 2.10.--A conceptual scheme representing the data collected by the Intern Consultant Inventory.

Intern Preference for Selected Intern Consultant Tasks

(Part A)

Category	1 Classroom Management Techniques	2 Conditions of Learning	3 Planning Learning Experiences	4 Evaluation of Learning	5 Analyzing Teaching Behavior	6 Supportative Behavior
Item 1						
Item 2						
Item 3						
Item 4						

Intern Preference for Selected Intern Consultant Methods of Operation

(Part B)

Problem Situations

Items	1 Diagnosing Learning difficulty and planning specific individual lessons	2 Pacing lessons during the school day	3 Difficulty teaching a science concept	4 Difficulty with clear and concise directions	5 Child retention and principal misunderstanding
(a) Theoretical-Practical					
(b) Active Participation					
(c) Directive-Non-Directive					

For the development of this instrument, nearly 100 specific behavioral tasks were identified, each describing intern consultant behaviors. The categories and specific items for the instrument evolved from this pool of items.

Validity.--Three independent panels of experts were involved in the item, category, and test construction phase of this study. These panels served to establish the validity of the instrument. Each individual panel member was by past experience a director of an E.I.P. off-campus center and thus knowledgeable about the role of the intern consultant. They were no longer directly involved in the supervision of subjects in this study, neither interns nor consultants. The panels offered unique, relevant, and objective criticisms which strengthened both face and content validity for the Intern Consultant Inventory. After several trials and refinements it was their unanimous judgement that the sample and content within the completed instrument was representative of the role of the intern consultant.

To test appropriateness, objectivity, and sensitivity, a prototype was administered to fifteen former intern teachers, each a graduate of E.I.P. This sample was considered similar to incumbent interns.

Responses from the former intern pilot group suggested several changes which were incorporated into the final revision of the instrument. They indicated that

the directions and items were clear, believed the descriptions were typical of consultant behaviors, and could easily identify with the specific problem situations.

The instrument appeared to be sensitive enough to make discriminations required for the research problem. Variability of responses by the pilot sample indicated the instrument's ability to measure differences among individuals. The printed instructions were clear and provided the necessary information needed by the pilot sample to complete the instrument. This group offered stylistic changes which were incorporated into the instructions for the final instrument. Their reactions indicated that the instrument was objective because it did not introduce a pre-disposition or bias toward responding in any particular manner. They concurred with the panel of experts that the sample content was representative of the intern consultant role. Although the pilot sample did not specifically say so, the instrument appeared to meet the test of appropriateness as they met the demands imposed by the instrument; i.e., reading vocabulary level, following written instructions, the symbolic thinking required by reacting to the scales. Upon completion of changes resulting from the pilot study, the final draft was printed. For convenience in data processing, a machine scoreable answer sheet accompanied the final instrument booklet.

Reliability.--Unlike many standardized instruments (i.e., mental maturity, achievement tests) no correct answer was assumed. The subject placed his response anywhere on a continuum which measured degree of preference. Methods of establishing reliability such as the Kuder-Richardson Split Half Formula-Twenty assume a correct answer. Therefore, such methods of determining reliability were not applicable.

The test-retest method was also considered a feasible approach to the establishment of reliability for a questionnaire.[5] However, at the empirical level, studies by Cuber and Gerberich[6] and by Gerberich[7] had shown considerable inconsistency in questionnaire responses over time. The test-retest method was not considered appropriate as a means of establishing reliability for the Intern Consultant Inventory.

Kerlinger, in defining reliability, indicated that it consists of several components among which is, "accuracy or precision."

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[5]The Intern Consultant Inventory in the absence of a correct answer was considered most like a questionnaire.

[6]John F..Cuber and John B. Gerberich, "A Note on Consistency in Questionnaire Responses," Sociological Review, XI (February, 1946), 13-15.

[7]John B. Gerberich, "A Study of the Consistency of Informant Responses to Questions in a Questionnaire," Journal of Educational Psychology, XXXVIII (May, 1947), 299-306.

> This component refers to the degree to which the measure obtained from a measuring instrument produce 'true' measures of the property measured. It asks simply are the measurements accurate?[8]

The crucial test of reliability for the Intern Consultant Inventory was precision or accuracy. Kerlinger goes on to say that "we can inquire how much error of measurement there is in a measuring instrument . . . reliability can be defined as the relative absence of errors of measurement in a measuring instrument."[9]

Fitch,[10] following administration of the Intern Consultant Inventory to two different samples (intern teachers and intern consultants), found that the error term in the applied Analysis of Variance statistic was extremely small. However, difference between the two samples on the variable of interest was significant at greater than the .001 level. The low error variance between samples on the Intern Consultant Inventory suggested a relative absence of measurement error in the instrument. Therefore, the tentative conclusion was that the instrument met the reliability criteria for the purpose of this study.

Data collected by the Intern Consultant Inventory were analyzed to provide a measure of internal consistency.

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[8]Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart, and Winston, Inc., 1967), p. 430).

[9]Ibid.

[10]Fitch, op. cit.

The measures of internal consistency for this multivariate instrument are summarized in an inter-item correlational matrix, and presented in Appendix I.

Rokeach Dogmatism Scale

The Rokeach Dogmatism Scale was developed by Milton Rokeach to test his theory of belief systems[11] which stemmed from the authoritarian personality.[12] The theory viewed a given personality as an organization of beliefs or expectancies having a definable and measurable structure. This structure referred to the relative "openness" or "closedness" of a person's belief systems. Rokeach identified the defining characteristics of open-closed systems as follows:[13]

A Belief-Disbelief System Is

Open	Closed
A. to the extent that, with respect to its organization the belief disbelief continuum:	
1. the magnitude of rejection of disbelief subsystems is relatively low at each point along the continuum;	1. the magnitude of rejection of disbelief subsystems is relatively high at each point along the disbelief continuum;
2. there is communication of parts within and between belief and disbelief systems;	2. there is isolation of parts within and between belief and disbelief systems;

[11] Rokeach, op. cit.

[12] T. W. Adorno, et al., The Authoritarian Personality (New York: Harper and Brothers, 1960).

[13] Rokeach, op. cit., pp. 55-56.

3. there is relatively little discrepancy in the degree of differentiation between belief and disbelief systems;	3. there is relatively great discrepancy in the degree of differentiation between belief and disbelief systems;
4. there is relatively high differentiation within the disbelief system;	4. there is relatively little differentiation within the disbelief system;

B. <u>to the extent that, with respect to the organization along the central-peripheral dimension</u>:

1. the <u>specific content</u> of primitive beliefs (central region) is to the effect that the world one lives in, or the situation one is in at a particular moment, is a friendly one;	1. the <u>specific content</u> of primitive beliefs (central region) is to the effect that the world one lives in, or the situation one is in at a particular moment, is a threatening one;
2. the <u>formal content</u> of beliefs about authority and about people who hold to systems of authority (intermediate region) is to the effect that authority is not absolute and that people are not all according to their agreement or disagreement with such authority;	2. the <u>formal content</u> of beliefs about authority and about people who hold to systems of authority (intermediate region) is to the effect that authority is absolute and that people are to be accepted and rejected according to their agreement or disagreement with such authority;
3. the <u>structure</u> of beliefs and disbeliefs perceived to emanate from authority (peripheral region) is such that its substructures are in relative communication with each other, and finally;	3. the <u>structure</u> of beliefs and disbeliefs perceived to emanate from authority (peripheral region) is such that its substructures are in relative isolation with each other and finally;

C. to the extent that, with respect to the time perspective dimension, there is a:

1. relatively broad time perspective.	1. relatively narrow future-oriented time perspective.

The short-form of the Rokeach Scale used in this study was developed by Troldahl and Powell[14] in an effort to decrease administration time while maintaining high reliability. Their split-half reliability of .79 for the short-form compared favorably with .84 on the forty-item form. They concluded that, "It would seem that the 20-item version could be used without much reluctance."[15]

This twenty-item instrument required approximately ten minutes to complete. The subject indicated disagreement or agreement with each item on a scale ranging from negative 3 to positive 3 with the zero point excluded to force responses toward agreement or disagreement. The scale was subsequently converted for scoring purposes, to a 1 to 7 scale by adding a constant of 4 to each item score. A subject's scores were computed by summing the scale-scores of twenty items on the test. Higher scores indicated a more closed belief system and lower scores a more open belief system. The scale purported to "measure individual differences in openness or closedness of belief

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[14]Verling C. Troldahl and Frederic A. Powell, "A Short Form Dogmatism Scale for Use in Field Studies," Social Forces, XLIV (December, 1965), 211-14.

[15]Ibid., 213.

systems" and should also serve to measure a general authoritarianism and general intolerance. The short form of the Rokeach Scale is included in Appendix II.

Edwards Personal Preference Schedule

The Edwards Personal Preference Schedule (EPPS) was a standardized instrument designed to assess the relative strengths of fifteen manifest needs selected from H. A. Murray's[16] need system. The fifteen manifest needs measured by the EPPS were (1) achievement, (2) deference, (3) order, (4) exhibition, (5) autonomy, (6) affiliation, (7) intraception, (8) succorance, (9) dominance, (10) abasement, (11) nurturance, (12) change, (13) endurance, (14) heterosexuality, and (15) aggression. A listing of the EPPS needs with their definitions is included in Appendix III.

Test construction was based on the premise that the fifteen needs were normal personality variables, that any pattern or score derived from an individual's answers to the items on the test was a normal pattern or score, and the difference in scores between people could be accounted for by differences among people. The test yielded individual scores for each of the variables, and a total set of scores, when considered together, was termed a "need profile" or "personality pattern."

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[16]Murray, op. cit.

Individuals were asked to respond to the EPPS by indicating which of two statements was more characteristic of himself. Profiles of the fifteen scores were plotted and the relative strengths of each examined.

Split-half internal consistency reliability coefficients were reported which ranged from .60 to .87 with a median of .78. One-week retest reliability were also quoted ranging from .70 to .87 with a median of .83.[17]

Minnesota Teacher Attitude Inventory (MTAI)

The "MTAI was designed to measure those attitudes of a teacher which would predict how well he would get along with pupils in interpersonal relationships and, indirectly how well satisfied he would be with teaching as a vocation."[18]

The MTAI consisted of 150 statements concerning teacher-pupil relations. The person answering the inventory responded to each statement with one of the following:

A. Strongly agree with the statement.

B. Agree with the statement.

C. Undecided or uncertain about the statement.

D. Disagree with the statement.

E. Strongly disagree with the statement.

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[17]Allen L. Edwards, Edwards Personal Preference Schedule: Manual, 1959 rev. (New York: The Psychological Corporation, 1959), p. 19.

[18]Cook, Leeds, and Callis, op. cit., p. 3.

Items such as the following were included in the Inventory:

No. 27. A child should be taught to obey and adult without question.

No. 58. Children "should be seen and not heard."

Although the authors of the MTAI reported no right or wrong answers with the instrument; scoring was determined by subtracting "wrong" answers from "right" answers. The answers were right or wrong depending on whether or not the respondent agreed with specific attitude statements. Using the R-W formula, the range of scores on the MTAI was from +150 to -150. Higher scores indicated a more positive attitude while lower scores were indicative of a negative attitude toward children.

The instrument appeared to be valid for differentiating between two extreme groups of teachers, those who were at the extreme ends of an attitude toward pupils continuum. At the upper end of this continuum were teachers who could "maintain a state of harmonious relations with their pupils characterized by mutual affection and sympathetic understandings."[19] At the other end of this continuum were the frustrated, nervous, fearful teachers who frequently have disciplinary problems. These teachers' classrooms seem to be more subject-centered than pupil-centered.

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[19] Ibid.

The validity was established by Leeds[20] who reported the validity coefficients for the inventory, when correlated with (1) ratings of principals, (2) ratings by classroom observations (Leeds' observations), and (3) ratings of pupils, as .434, .486, and .452, respectively. A multiple correlation of .596 between the inventory and the three criterion measures as well as the other three correlations, was significant at the one per cent level.[21]

The reliability of the inventory as determined by the split-half method and the Spearman-Brown prophecy formula resulted in a reliability coefficient of .87.[22]

Data-Collection Process

Data on the Intern Consultant Inventory were collected over a twenty-day period of April/May, 1969. This period was necessitated by the geographic distribution of E.I.P. centers scattered throughout the lower peninsula of the State of Michigan (see Table 2.11).

A cover letter was sent to the off-campus centers, generally indicating the purpose of the research project. Through the cooperation of E.I.P Center Directors,

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[20]Carroll H. Leeds, "The Construction and Differential Value of a Scale for Determining Teacher-Pupil Attitudes" (unpublished doctoral dissertation, University of Minnesota, Minneapolis, 1946).

[21]Leeds, "A Scale for Measuring . . .," op. cit.

[22]Ibid., p. 23.

TABLE 2.11.--A listing of Elementary Intern Program off-campus centers cooperating in this study, and their approximate distances from the Michigan State University campus.

Name of Center	Approximate Distance from MSU Campus
1. Alpena	230 miles
2. Battle Creek	50 miles
3. Bay City-Saginaw	80 miles
4. Detroit	97 miles
5. Grand Rapids	65 miles
6. Lansing	4 miles
7. Livonia	90 miles
8. Macomb	90 miles
9. Pontiac	84 miles
10. Port Huron	120 miles

meetings with interns were scheduled for participation in this study. In most cases interns participated during the early evening hours, following a full working day, in conjunction with, or in place of, a regularly scheduled college course taught by the Center Director. In several instances, interns were scheduled after their normal teaching day, before the supper hour and for the expressed purpose of participation in this study. This accounts for a high rate of involvement by the sample. An attempt was made to maximize the validity of the data and minimize any inconvenience to the respondents.

The subjects met with a team of researchers. This team consisted of three advanced graduate students in

elementary education at Michigan State University. The research team met several times before the data-collecting process was initiated to standardize rapport establishing procedures, oral instructions, and test administration.

Ten off-campus centers necessitated twenty separate administrations of the instrument. Test administration paralleled a typical classroom testing situation. The respondents independently completed the Intern Consultant Inventory in one large group session for each center. The average time period for the group to complete the reactionaire was thirty minutes.

The physical condition of the particular center facility and differences in geographic location caused some variance in the data collection process. Nineteen of the reactionaire administrations took place in a classroom within the center facility. Interns from one center completed the instrument in the living room of the center director's home. The practice of this center was to meet informally in various homes for the regularly scheduled class. They had been previously scheduled to meet in the director's home coincidental to the data collection process.

Data on the MTAI, EPPS and Rokeach Dogmatism Scale were collected during the E.I.P students' first week at the centers. For five of the ten centers this was during the fall term, 1967; for the remaining five, this occurred

during winter term, 1968. All students completed the above instruments prior to student teaching and internship. The administration of these instruments preceeded the beginning of internship by from 9 to 11 months, and the assessment of intern consultant role by from 16 to 18 months.

Statistical Analysis

The multi-factorial nature of the Intern Consultant Inventory and EPPS required multi-variant analysis models which considered the contribution of each factor to the overall relationship of the dependent and independent variable for each hypothesis. Therefore a multiple regression analysis was employed to obtain the correlations for Hypotheses I, II, III, V, VI, and VII while canonical correlation analysis was applied for testing Hypotheses IV and VIII. A summary of the statistical analysis employed for each hypothesis is presented in Table 2.12.

Multiple Regression Analysis

The multiple regression analysis was computed using a "least squares"[23] routine. This method of computation was employed to obtain the most accurate prediction of the dependent variable from multiple independent variables.

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[23]Oscar Kempthorne, Design and Analysis of Experiments (New York: John Wiley and Sons Book Company, 1952).

TABLE 2.12.--Summary of hypotheses testing procedures.

Hypothesis	Analysis	Dependent Variables	Independent Variables
I	Multiple Regression	Sex	Supervisory Tasks Classroom Management Techniques Conditions of Learning Planning for Learning Experiences Evaluation of Learning Analyzing Teaching Behavior Supportive Consultant Behavior
II	Multiple Regression	Open-Closed Mindedness	Supervisory Tasks (6 variables, see Ho I)
III	Multiple Regression	Attitude Toward Children	Supervisory Tasks (6 variables, see Ho I)
IV	Canonical Correlation	Measured Need Pattern Achievement, Succorance Deference, Dominance, Order, Abasement, Exhibition, Nurturance, Autonomy, Change, Affiliation, Endurance, Intraception, Heterosexuality, Aggression	Supervisory Tasks (6 variables, see Ho I)
V	Multiple Regression	Sex	Method of Operation Theoretical-Practical Intern-Intern Consultant Actuator Directive-Non-Directive
VI	Multiple Regression	Open-Closed Mindedness	Method of Operation (3 variables, see Ho V)
VII	Multiple Regression	Attitude Toward Children	Method of Operation (3 variables, see Ho V)
VII	Canonical Correlation	Measured Need Pattern (15 variables, see Ho IV)	Method of Operation (3 variables, see Ho V)

Guilford[24] explains that the least squares principle will allow the predicted value of the dependent variable to satisfy the requirement that it be based on mean values of the independent variables. Choosing the mean gives the smallest set of squared deviations from the predicted value.

The least squares method resulted in a multiple correlation coefficient (mult R) for each hypothesis. The mult R is a measure of how much of the variation in the dependent variable, above the variation which may be accounted for by its mean, may be accounted for by the group of independent variables. Partial correlation coefficients[25] were employed to report a correlational value between the dependent variable and a selected independent variable with other independent variables held constant.

Multiple regression analysis was performed to determine the strength of the relationship between the dependent and independent variables for six of the hypotheses posed by this study. They were:

I. There is no relationship between intern expressed preference for selected supervisory tasks and sex.

II. There is no relationship between intern expressed preference for selected supervisory tasks and his measured opened-closed mindedness.

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[24] J. P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw Hill Book Company, 1965), p. 357.

[25] William L. Hays, Statistics for Psychologists (New York: Holt, Rinehart and Winston, 1963), p. 574.

III. There is no relationship between intern expressed preference for selected supervisory tasks and his measured attitude toward children.

V. There is no relationship between intern expressed preference for selected supervisory method of operation and sex.

VI. There is no relationship between intern expressed preference for selected supervisory method of operation and his measured open-closed mindedness.

VII. There is no relationship between intern expressed preference for selected supervisory method of operation and his measured attitude toward children.

For Hypotheses I, II, and III, sex, open-closed mindedness, and attitude toward children were predicted from six categories of intern preference for consultant tasks, measured by Part A of the Intern Consultant Inventory. They were: (1) Classroom Management Techniques, (2) Conditions of Learning, (3) Planning for Learning Experiences, (4) Evaluation of Learning, (5) Analyzing Teaching Behavior, and (6) Supportive Consultant Behavior.

For Hypotheses V, VI, and VII, sex, open-closed mindedness, and attitude toward children were predicted from the three categories of intern preference for intern consultant method of operation as measured by Part B of the Intern Consultant Inventory. They were: (1) Theoretical-Practical, (2) Intern-Intern Consultant Actuator, and (3) Directive-Non-Directive.

For each of the hypotheses an F test was applied to test the statistical significance of the relationship between the dependent and group of independent variables.

Canonical Correlation

Canonical Correlation as explained by Rozeboom[26] is a multivariant analysis procedure which determines the strength of relationship between multiple independent and dependent variables. Where data are available for a set of independent and dependent variables on the same populaton, canonical correlation analysis can be applied. The canonical correlation procedure finds coefficients for a linear function for each set of variables that maximizes the linear correlation between the determined functions. Thus a canonical correlation coefficient is computed for the pair of sets of variables. After the first canonical correlation is partialed out, the analysis is repeated for the residuals.

Canonical Correlation was used to determine the strength of association between the variables in hypotheses IV and VIII. They are:

IV. There is no relationship between intern expressed preference for selected supervisory tasks and his measured need pattern.

VIII. There is no relationship between intern expressed preference for selected supervisory method of operation and his measured need pattern.

Hypotheses IV and VIII contain the fifteen manifest needs measured by the EPPS as the dependent variables with categories of Part A and B respectively of the Intern

[26]William W. Rozeboom, Foundations of the Theory of Prediction (Homewood, Ill.: The Dorsey Press, 1966), pp. 250-51.

Consultant Inventory as the independent variables. Therefore the rationale for the analysis employed was developed to include each hypothesis.

Further explanation of canonical correlation is offered by Cooley and Lohnes[27] who note that the nature of canonical correlation can be described algebraically best. They suggest that two sets of N simultaneous equations be considered with p predictors and q criterion variables where x_{ij} and y_{ij} represent the two sets of measures as illustrated in Table 2.13.

TABLE 2.13.--A conceptual scheme of canonical correlation procedure.[28]

$\hat{x}_1=a_1x_{11}+a_2x_{12}+\ldots+a_px_{1p}$;	$b_1y_{11}+b_2y_{12}+\ldots+b_qy_{1q}=\hat{y}_1$
$\hat{x}_2=a_1x_{21}+a_2x_{22}+\ldots+a_px_{2p}$;	$b_1y_{21}+b_2y_{22}+\ldots+b_qy_{2q}=\hat{y}_2$
. . . . .	. . . . .
. . . . .	. . . . .
. . . . .	. . . . .
$\hat{x}_N=a_1x_{N1}+a_2x_{N2}+\ldots+a_px_{Np}$;	$b_1y_{N1}+b_2y_{N2}+\ldots+b_qy_{Nq}=\hat{y}_N$

Sets of weights are computed, a and b, that maximize the correlation between x and y, the derived canonical variates. The number of possible pairs of linear

[27]William W. Cooley and Paul R. Lohnes, Multivariate Procedures for the Behavioral Sciences (New York: John Wiley and Sons, Inc., 1962).

[28]Ibid., p. 35.

combinations are p or q whichever is smaller. Each pair of canonical variates $x_{i.}$ and $y_{i.}$ is maximally correlated, subject to the restriction that each canonical variate be orthogonal to all other canonical variates on its side of the equation.

Following the computation of canonical correlation coefficients to test the strength of the relationship between the dependent and independent variables a second procedure was employed. A step-wise regression was utilized to analyze the contribution of each independent variable to the previously computed canonical correlation coefficient. A conceptual scheme of this procedure is illustrated in Table 2.14.

TABLE 2.14.--A conceptual scheme of step-wise regression to analyze the contribution of each independent variable in the analysis of Hypotheses IV and VIII.

Ed_1 and P_1	Ed_1 and P_1+P_2	Ed_1 and $P_1+P_2+P_3$
Ed_2 and P_1	Ed_2 and P_1+P_2	Ed_2 and $P_1+P_2+P_3$
Ed_3 and P_1 then	Ed_3 and P_1+P_2 then	Ed_3 and $P_1+P_2+P_3$
. .	. .	. .
. .	. .	. .
. .	. .	. .
Ed_{15} and P_1	Ed_{15} and P_1+P_2	Ed_{15} and $P_1+P_2+P_3$

Process repeated with one additional independent variable added with each succeeding step, through independent variable P_j.

An univariate F statistic was computed for 15 dependent variables beginning with the first independent variable and then adding one independent variable for each succeeding step through all independent variables. The final analysis included the 15 manifest needs as the independent variables and all categories of intern preference for supervisory behaviors as independent variables (see Table 2.14).

To determine the significance of each canonical correlation coefficient computed, a Chi Square statistic was applied. In the step-wise regression procedure a Chi-Square test was applied to determine the statistical significance of the contribution of each independent variable to the relationship determined between that variable and all the dependent variables. The significance of the association between each independent and dependent variable was determined using a univariate F statistic.

Specific features of the EPPS and ICI highly influenced the final choice of the analysis technique selected. The ipsative nature of the EPPS resulted in non-independence of the sub-scales. The fifteen different need scores reported for each individual could not be collapsed in any way to produce one score. Therefore need pattern was treated as fifteen dependent variables in the analysis procedure.

The Intern Consultant Inventory, Part A (intern preference for supervisory tasks), contained six categories and Part B (intern preference for supervisory method of operation) contained three. Neither Part A nor Part B could be combined to produce one score for each. Therefore multiple independent variables were used.

Hypotheses IV and VIII each required multiple dependent and independent variables which negated more conventional analysis techniques. Canonical correlation analysis was considered to be the most logical and powerful analysis procedure which was appropriate.

Qualifications for the Statistical Methods Utilized

Multiple Regression utilizing the least squares routine and canonical correlation are both regression procedures. Therefore the underlying assumptions and limitations are essentially the same for each.

The regression methods assume that the dependent variable can be expressed in the form of the equation "Y = A + BX + D" where "Y" is the dependent variable, "A" and "B" are unknown coefficients to be determined by the computational procedure, "X" is the independent variable, and "E" is the error inherent in the model.

An important assumption states that the line of best fit which specifies the relationship between the independent and dependent variables be a straight line. To the

extent that the data deviates from linearity, projections derived from the linear model will be in error. This assumption is not considered highly important since most functions can be best approximated by a straight line over a short period of time.

A second assumption underlying the application of regression methods is that the error terms in the regression model are independent. Violation of this assumption does not affect the estimates as such, but rather the confidence intervals that can be placed around those estimates. Although confidence intervals were computed for the correlational coefficients they do not add much to knowledge of the data.

The assumptions of normality and common variance applied to regression models are of little consequence. Moderate variations in those entities have little effect on the results obtained from the model.

An important principle which is applicable to correlational procedures is that the correlations increase as the size of the inter-correlation on the independent variable decrease. The correlation coefficients may be limited due to the inter-correlation of categories in the Intern Consultant Inventory used as the independent variables. An inter-correlational matrix for Part A and Part B of the Intern Consultant Inventory in Appendix I can be studied to determine the limitation which may be placed on the computed correlation coefficients.

Significance Level Chosen

The five per cent level of rejection or failure to reject the null hypothesis was selected as being sufficiently rigorous for the conditions of this study. Thus, if the probability was at less than five times in 100 that the observed relationship could arise by chance, the hypothesis was rejected; but if the observed relationship was of such a magnitude that it might arise more than five times in 100 through the operation of chance factors, the null hypothesis of no relationship was not rejected.

CHAPTER III

ANALYSIS OF THE DATA

Eight hypotheses were tested in the present study. In the following sections the analysis for each is presented.

Hypothesis I

> There is no relationship between intern expressed preference for selected supervisory tasks and sex.

The Intern Consultant Inventory (ICI) was used as a measure of expressed preference for selected supervisory tasks. Sex was the dependent variable while the six categories of expressed preference for supervisory tasks (Classroom Management Techniques, Conditions of Learning, Planning for Learning, Evaluation of Learning, Analyzing Teaching Behavior, and Supportive Consultant Behavior) were independent variables.

Subjects indicated their degree of preference for supervisory tasks by selecting a letter between A and E from a scaled continuum. The letters were weighted from 1 to 5 for measurement purposes. Table 3.1 presents the continuum on which intern preference for supervisory tasks were measured. The letters have been substituted with numbers for clarification.

TABLE 3.1.--Scaled continuum on ICI Part A intern preference for supervisory tasks.

1	2	3	4	5
Definitely not preferred behavior				Very highly preferred behavior

Mean scores of males and females on the ICI Part A are presented in Table 3.2. Interpretation of Table 3.2 should be made within limitations of a 1 - 5 scale. Thus, if all interns rated a task as "Definitely not preferred behavior," the mean rating would be 1.00, while a mean of 5.00 would indicate that all interns had rated the task as including "Very highly preferred behavior." A mean of 3.00 therefore indicated a somewhat neutral rating.

Observation of Table 3.2 suggests that males and females preferred Supportive Consultant Behavior most of all. The rank order of four categories were identical for males and females as follows: (1) Supportive Consultant Behavior, (2) Planning for Learning, (3) Conditions of Learning, and (4) Evaluation of Learning. Males ranked Analyzing Teaching Behavior over Classroom Management Techniques while the inverse was true for females.

The results of the Multiple Regression Analysis are presented in Table 3.3.

TABLE 3.2.--Mean scores and standard deviations of males and females on Part A (supervisory tasks) of the Intern Consultant Inventory.

Preference for Selected Supervisory Tasks	Males (N=31)		Females (N=154)		Total (N=185)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Classroom Management Techniques	3.51	.85	3.49	.75	3.49	.76
Conditions of Learning	3.81	.82	4.06	.70	4.02	.72
Planning for Learning	3.91	.75	4.13	.60	4.09	.63
Evaluation of Learning	3.68	.94	4.04	.65	3.98	.71
Analyzing Teaching Behavior	3.56	.74	3.34	.74	3.37	.74
Supportive Consultant Behavior	4.10	.70	4.32	.61	4.28	.63
Total	3.76	.80	3.90	.68	3.87	.70

TABLE 3.3.--A multiple correlation with intern sex as the dependent variable and six categories of supervisory tasks as the dependent variables.

Variable	Mult R	Partial R
Sex (dependent variable)	+.32*	
Classroom Management Techniques		-0.09
Conditions of Learning		+0.04
Planning for Learning Experiences		+0.12
Evaluation of Learning		+0.15
Analyzing Teaching Behavior		-0.21
Supportive Consultant Behavior		+0.07

*Significant at .05 level of confidence.

The null hypothesis that the correlation equals zero was rejected at the .05 level of confidence. The positive direction of the multiple R of +.32 suggests that females tended to indicate a greater preference for supervisory tasks than males.

Partial Correlation Coefficients were reported to indicate the correlation of a given independent variable with the single dependent variable. Higher partial correlation coefficients were associated with two categories of intern preference for supervisory tasks: Evaluation of Learning and Analyzing Teaching Behavior. The positive nature of the partial correlation coefficient obtained for Evaluation of Learning suggests a greater preference by females than males, while a negative correlation associated with Analyzing Teaching Behavior suggests a greater preference by males than by females. Partial R's associated with other categories of preference for supervisory behavior were considered too low for meaningful discussion.

Hypothesis II

> There is no relationship between intern expressed preference for selected supervisory tasks and his measured open-closed mindedness.

The ICI Part A was used as a measure of intern expressed preference for selected supervisory tasks. Intern scores on the short form of the Rokeach Dogmatism Scale indicated open-closed mindedness. Measured open-closed mindedness was the dependent variable while the six

measures of expressed preference for supervisory tasks (Classroom Management Techniques, Conditions of Learning, Analyzing Teaching Behavior, and Supportive Consultant Behavior) were independent variables. Intern mean scores on the Rokeach Dogmatism Scale are reported in Table 3.4. The obtained mean score of 62.02 indicates that the intern sample tended toward relatively open-mindedness.

TABLE 3.4.--Mean scores of intern open-closed mindedness.

	Mean	S.D.
Rokeach Dogmatism Scale	62.02	14.58

The multiple correlation coefficient is reported in Table 3.5. The Mult R represents the correlation of all independent variables with the independent variable, therefore where the Mult R was found not to be statistically significant partial correlation coefficients were not reported.

TABLE 3.5.--A multiple correlation with intern open-closed mindedness as the dependent variable and six categories of supervisory tasks the independent variables.

Variable	Mult R
Open-closed mindedness (dependent variable)	0.07

The obtained multiple correlation coefficient indicated a relationship not significantly different from zero. There results failed to reject the null hypothesis of no relationship. No relationship was found between intern expressed preference for selected supervisory tasks and his measured open-closed mindedness.

Hypothesis III

> There is no relationship between intern expressed preference for selected supervisory tasks and his measured attitude toward children.

The ICI was used as a measure of expressed preference for selected supervisory tasks. Minnesota Teacher Attitude Inventory (MTAI) scores were used as measures of intern attitude toward children. Attitude toward children was the dependent variable while the six categories of expressed preference for supervisory tasks (Classroom Management Techniques, Conditions of Learning, Planning for Learning Experience, Evaluation of Learning, Analyzing Teaching Behavior, and Supportive Consultant Behavior) were independent variables.

TABLE 3.6.--Mean score and standard deviation of intern attitude toward children.

	Mean	S.D.
Minnesota Teacher Attitude Inventory	42.63	24.52

The MTAI mean score of 42.63 reported for interns in Table 3.6 is relatively low compared with test norms. Cook, Leeds and Callis[1] report mean MTAI scores of 77.4 and 55.1, respectively, for graduating elementary education senior and experienced elementary teachers with four years of training.

Multiple and partial correlation coefficients for testing the relationship between the independent and dependent variables are reported in Table 3.7.

TABLE 3.7.--A multiple correlation with intern attitude toward children as the dependent variable and six categories of supervisory tasks the independent variables.

Variable	Mult R	Partial R
Attitude toward children (dependent variable)	0.26*	
Classroom Management Techniques		-0.06
Conditions of Learning		+0.09
Planning for Learning Experiences		-0.09
Evaluation of Learning		+0.14
Analyzing Teaching Behavior		-0.12
Supportive Consultant Behavior		+0.08

*Significant of .05 level of confidence.

The null hypothesis that the correlation coefficient equals zero was rejected at the .05 level of confidence.

[1]Cook, Leeds, and Callis, op. cit., p. 3.

The obtained multiple correlation coefficient of .26 differed from zero in the positive direction indicating that interns who scored high on the MTAI had a greater preference for supervisory tasks than those who scored low. A negative partial correlation coefficient of -.12 reported for Analyzing Teaching Behavior suggests that interns who scored low on the MTAI tended to indicate a greater preference for that type of assistance than those who scored high. A positive partial correlation coefficient of +.14 associated with Evaluation of Learning suggests that interns with more positive attitudes toward children had a greater preference for that category than those with less positive attitudes. Negative partial correlation coefficients were also associated with Classroom Management Techniques and Planning for Learning Experiences, while Conditions of Learning and Supportive Consultant Behavior yielded positive partial correlations; however, all were of small magnitude.

Hypothesis IV

> There is no relationship between intern expressed preference for selected supervisory tasks and his measured need pattern.

The ICI Part A was used as a measure of expressed preference for supervisory tasks. Intern scores on the EPPS represented measured need pattern. The fifteen variables of the EPPS were the dependent variables while six categories of the ICI Part A were the independent variables.

Observation of Table 3.8 indicates that interns scored highest on categories of Intraception, Change, and Affiliation; lowest scores are reported for Order, Aggression, and Succorance. Rankings of high and low need scores have close correspondence to EPPS scores reported by Corman and Olmsted[2] for 1960 Campus and 1960 STEP elementary teachers.

TABLE 3.8.--Intern scores on the Edwards Personal Preference Schedule.

Need	Mean	Standard Deviation
Achievement	12.58	3.97
Deference	12.41	3.81
Order	10.62	4.29
Exhibition	13.90	3.5_2
Autonomy	12.51	4.51
Affiliation	16.65	4.16
Intraception	18.01	4.79
Succorance	12.27	4.64
Dominance	13.33	4.47
Abasement	15.39	4.77
Nurturance	16.57	4.93
Change	17.41	4.77
Endurance	12.99	5.13
Heterosexuality	13.29	5.72
Aggression	11.11	4.44

[2]Corman and Olmsted, op. cit., p. 98.

A canonical correlation coefficient for testing the strength of the relationship of variables in Hypothesis IV is reported in Table 3.9.

TABLE 3.9.--Canonical correlation analysis of intern preference for supervisory tasks and measured need pattern.

Canonical R	Chi Square	D.F.	P.
.41	92.69	90	N.S.

The canonical correlation coefficient of .41 reported in Table 3.9 was not significant at the .05 level of confidence. These results failed to reject the null hypothesis of no relationship.

The non-significant canonical correlation coefficient of .41 represented the maximum correlation that could be determined between the 15 manifest needs as measured by the EPPS and six categories of intern preference for supervisory tasks. Therefore the analysis of additional canonical R's or the step-wise regression to determine the contribution of each independent variable was meaningless.

Hypothesis V

> There is no relationship between intern expressed preference for selected supervisory method of operation and sex.

The ICI Part B was used as a measure of expressed preference for supervisory method of operation. Sex was

the dependent variable while three categories of expressed preference for supervisory method of operation (Theoretical-Practical, Intern-Intern Consultant Actuator, and Directive-Non-Directive) were independent variables. Interns indicated their preference for supervisory method of operation on a continuum scaled from 1 - 5 similar to Part A of the ICI. For further explanation of the scaled continuua associated with categories of method of operation, see Appendix I. Scores of males and females on the ICI Part B are presented in Table 3.10.

TABLE 3.10.--Mean scores and standard deviations of males and females on Part B (supervisory method of operation) of the Intern Consultant Inventory.

Preference for selected supervisory method of operation	Males (N=31)		Females (N=154)		Total (N=185)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Theoretical-Practical	3.72	.85	3.91	.69	3.88	.72
Intern-Intern Consultant Actuator	3.56	.73	3.73	.81	3.70	.80
Directive-Non-Directive	3.57	.76	3.74	.78	3.71	.78
Total	3.62	.78	3.79	.76	3.76	.77

Scores for intern preference for supervisory method of operation presented in Table 3.10 illustrate that females indicated a greater preference than males for each of the three categories.

The obtained multiple correlation coefficient is reported in Table 3.11.

TABLE 3.11.--A multiple correlation with intern sex as the dependent variable and three categories of consultant method of operation as the independent variables.

Variable	Mult R
Sex (dependent variable)	+0.12

The obtained multiple correlation of +0.12 was not significantly different from zero. Results of the test thus failed to reject the null hypothesis of no relationship between intern expressed preference for selected supervisory method of operation and sex.

Hypothesis VI

> There is no relationship between intern expressed preference for selected supervisory method of operation and his measured open-closed mindedness.

The ICI Part B was used as a measure of intern expressed preference for supervisory method of operation. Intern scores on the short form of the Rokeach Dogmatism Scale were used as an indicator of open-closed mindedness. Measured open-closed mindedness was the dependent variable while the three categories of preference for supervisory method of operation (Theoretical-Practical, Intern-Intern Consultant Actuator, and Directive-Non-Directive) were independent variables.

Intern mean scores for open-closed mindedness were presented in Table 3.4, while scores for intern-preference for supervisory method of operation were reported in Table 3.10. Table 3.12 presents the obtained multiple correlation coefficient for testing Hypothesis VI.

TABLE 3.12.--A multiple correlation with intern open-closed mindedness as the dependent variable and three categories of consultant method of operation the independent variables.

Variable	Mult R
Open-Closed Mindedness (dependent variable)	0.06

The obtained multiple correlation coefficient of 0.06 indicated a relationship not significantly different from zero. Therefore results failed to reject the null hypothesis of no relationship.

Hypothesis VII

> There is no relationship between intern expressed preference for selected supervisory method of operation and his measured attitude toward children.

The ICI Part B was used as a measure of intern expressed preference for selected supervisory method of operation. Minnesota Teacher Attitude Inventory (MTAI) scores were used as measures of intern attitude toward children. Attitude toward children was the dependent variable while the three categories of expressed

preference for supervisory method of operation (Theoretical-Practical, Intern-Intern Consultant Actuator, and Directive-Non-Directive) were independent variables.

Intern scores on the MTAI have been reported in Table 3.6, while scores for intern method of operation were reported in Table 3.10. Results of the multiple correlation analysis for testing Hypothesis VII is included in Table 3.13.

TABLE 3.13.--A multiple correlation with intern attitude toward children as the dependent variable and three categories of consultant method of operation as the independent variables.

Variable	Mult R	Partial R
Attitude Toward Children (dependent variable)	0.21*	
Theoretical-Practical		0.01
Intern-Intern Consultant Actuator		0.13
Directive-Non-Directive		0.09

*Significant of .05 level of confidence.

The null hypothesis that the correlation equals zero was rejected at the .05 level of confidence. The obtained correlation of .21 differed from zero in a positive direction suggesting that interns who scored high on the MTAI indicated a greater preference for supervisory method of operation than those who scored low.

The relatively high partial correlation coefficient associated with Intern-Intern Consultant Actuator suggests that interns with more positive attitudes toward children preferred less supervisory active participation in problem situations than those with less positive attitudes.

Hypothesis VIII

There is no relationship between intern expressed preference for selected supervisory method of operation and his measured need pattern.

The variables of the ICI Part B were measures of supervisory method of operation, while intern scores on the EPPS represented measured need patterns. Fifteen manifest needs of the EPPS were dependent variables and three categories of the ICI Part B were independent variables.

Intern scores on the EPPS have been included in Table 3.8, while scores for intern preference for supervisory method of operation were reported in Table 3.10. The canonical correlation coefficient for testing the strength of the relationship of variables in Hypothesis VIII is included in Table 3.14.

TABLE 3.14.--A canonical correlation analysis of intern preference for supervisory method of operation and measured need pattern.

Canonical R	Chi Square	D.F.	P.
.39	44.27	45	N.S.

The obtained canonical correlation coefficient of .39 was not significant. These results, thus, failed to reject the null hypothesis of no relationship. No relationship was found between intern expressed preference for supervisory method of operation and his measured need pattern.

The correlation of .39 reported in Table 3.14 is the first computed canonical correlation coefficient which represents the relationship considering all dependent and independent variables. Failure to reject the null hypothesis of no relationship negates any further analysis, therefore the step-wise regression to determine the contribution of each independent variable was not reported.

Summary

The analysis of the hypotheses in the study were examined and the following results were found:

Hypothesis	Results
1. There is no relationship between intern expressed preference for selected supervisory tasks and sex.	Rejected at the .05 level of confidence. Females tended to indicate a greater preference for assistance through supervisory tasks than males. Females favored Evaluation of Learning over

		males, while males indicated a greater preference for Analyzing Teaching Behavior.
2.	There is no relationship between intern expressed preference for selected supervisory tasks and his measured open-closed mindedness.	Fail to reject at the .05 level of confidence.
3.	There is no relationship between intern expressed preference for selected supervisory tasks and his measured attitude toward children.	Rejected at .05 level of confidence. Interns with more positive attitudes toward children tended to indicate a greater preference for supervisory tasks than those with less positive attitudes.
4.	There is no relationship between intern expressed preference for selected supervisory tasks and his measured need patterns.	Fail to reject at the .05 level of confidence.

5. There is no relationship between intern expressed preference for selected supervisory method of operation and sex.	Fail to reject at the .05 level of confidence.
6. There is no relationship between intern expressed preference for selected supervisory method of operation and his measured open-closed mindedness.	Fail to reject at the .05 level of confidence.
7. There is no relationship between intern expressed preference for selected supervisory method of operation and his measured attitude toward children.	Reject at the .05 level of confidence. Interns with more positive attitudes toward children preferred greater supervisory approach to problem situations which were practical, indirect, and allowed intern to initiate action.
8. There is no relationship between intern expressed preference for selected supervisory method of operation and his measured need pattern.	Fail to reject at the .05 level of confidence.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Chapter IV is organized in five sections. The first section is a summary of the study. Limitations are presented in the second section followed by the conclusions. Implications for teacher education are found in the fourth section with implications for further research in the final section.

Summary

The purpose of this study was to explore the relationship between beginning teacher personal characteristics and preference for supervisory behavior. Eight hypotheses were formulated to test specific dimensions of the following questions. (1) Is there a relationship between intern teachers with varied personal characteristics and their expressed preference for selected supervisory tasks? (2) Is there a relationship between intern teachers with varied personal characteristics and their expressed preference for selected supervisory method of operation?

One hundred eighty-five Elementary Intern Program students attending Michigan State University were subjects

in the study. While teaching full-time under contract to a school district, interns were supervised on a 1 - 6 basis by qualified Intern Consultants. The Minnesota Teacher Attitude Inventory (MTAI), the Rokeach Dogmatism Scale, and Edwards Personal Preference Schedule (EPPS) were administered prior to student teaching and internship as measures of attitude toward children, open-closed mindedness, and personal need pattern, respectively. The Intern Consultant Inventory (ICI), Parts A and B, was administered during the eighth month of the internship year as a measure of expressed preference for intern consultant tasks (Part A) and method of operation (Part B). Intern sex was an additional variable studied. Eight null hypotheses were tested using these variables.

1. The first hypothesis was concerned with the relationship between intern expressed preference for selected supervisory tasks and sex. The obtained multiple correlaton coefficient of .31 was significant at the .05 level of confidence. Preference for selected supervisory tasks was related to intern sex. Females tended to have a greater preference for supervisory tasks than males.
2. Hypothesis II sought to determine a relationship between intern expressed preference for selected supervisory tasks and their measured

open-closed mindedness. The obtained multiple correlation coefficient of .07 was not significant at the .05 level of confidence. This study found no relationship between intern expressed preference for selected supervisory tasks and open-closed mindedness.

3. Hypothesis III dealt with the relationship between intern expressed preference for selected supervisory tasks and his measured attitude toward children. The obtained multiple correlation coefficient of .26 was significant at the .05 level of confidence. Preference for supervisory tasks was related to attitude toward children. Interns with more positive attitudes toward children tended to indicate a higher preference for supervisory tasks than interns with less positive attitudes.
4. The fourth hypothesis was concerned with the relationship between intern expressed preference for selected supervisory tasks and his measured need pattern. The canonical correlation coefficient of .41 was not significant at the .05 level of confidence; therefore results failed to reject the null hypothesis. Fifteen manifest needs as measured by EPPS and the six categories of intern preference for supervisory tasks were found not to be related.

5. Hypothesis V stated that there was no difference between intern expressed preference for selected supervisory method of operation and sex. The multiple correlation of 0.12 was not significantly different from zero, therefore results failed to reject the null hypothesis. This study indicated no relationship between intern expressed preference for selected supervisory method of operation and sex.
6. Hypothesis VI dealt with the relationship between intern expressed preference for selected supervisory method of operation and his measured open-closed mindedness. The computed multiple correlation coefficient of 0.06 indicated a relationship not significantly different from zero, therefore the conclusion was to fail to reject the null hypothesis. Open-closed mindedness was found not to be related to intern expressed preference for supervisory method of operation.
7. Hypothesis VII posited that there is no relationship between intern expressed preference for selected supervisory method of operation and his measured attitude toward children. The multiple correlation coefficient of 0.21 was significantly different from zero. Therefore,

it was concluded that there is a relationship between intern attitude toward children and his preference for supervisory method of operation. Interns with more positive attitudes tended to prefer supervisory approach to problem situations which were practical, indirect and allowed the intern to initiate action.

8. Hypothesis VIII stated that there was no relationship between intern expressed preference for selected supervisory method of operation and his measured need pattern. A canonical correlation coefficient was computed to determine the relationships between fifteen manifest needs as measured by the EPPS and three categories of supervisory method of operation. The obtained coefficient of .39 was not significant at the .05 level of confidence; failing to reject the null hypothesis. There was no relationship found between intern selected supervisory method of operation and need pattern.

Limitations of the Study

Conclusions and implications drawn from the results reported above must be interpreted with full consideration for those factors which may have influenced the study. These limitations, listed below, are particularly important when extrapolating beyond the study sample to a comparable or general population.

1. All subjects were enrolled in the Michigan State University Elementary Intern Program and may have been influenced by particular requirements and experiences involved in the preparation provided them.
2. The extent to which instruments were reliable and valid for the purpose of this study limits results and conclusions.
3. The magnitude of the coefficient in multiple correlational procedures is influenced by the relationship between independent variables. Categories of supervisory behaviors measured by the ICI were employed as independent variables, thus the extent to which these categories were related may limit results.
4. When a relationship between two or more variables is established beyong reasonable doubt, the fact that the correlation coefficient is small may mean that the measurement situation was contaminated by some factor(s) uncontrolled or not held constant by the researcher. Thus, the magnitude of the correlation coefficients computed for testing the hypotheses of this study may limit results and conclusions.

5. The subjects were administered the instruments in different teaching centers throughout the state. While every effort was made to insure similar testing conditions the degree to which variations occurred may limit results.
6. The sample of this study was represented by 154 females and 31 males. The degree to which females influenced the results cannot be determined.

Conclusions

Within the limitations of this study, the following conclusions were supported:

1. Intern expressed preference for selected supervisory tasks as measured by the ICI and sex were related. Females tended to have a greater preference for supervisory tasks than males.
2. No relationship was found between intern expressed preference for selected supervisory tasks as measured by the ICI and open-closed mindedness as measured by the Rokeach Dogmatism Scale.
3. There was a relationship between intern attitude toward children as measured by the MTAI and expressed preference for selected supervisory tasks as measured by the ICI. Interns with more positive attitudes toward children

tended to indicate a greater preference for supervisory tasks than interns with less positive attitudes.

4. No relationship was found between intern preference for selected supervisory method of operation as measured by the ICI and need pattern as measured by the EPPS.
5. No relationship was found between intern expressed preference for selected supervisory method of operation and sex.
6. There was no relationship found by this study between intern expressed preference for selected supervisory method of operation and his open-closed mindedness as measured by the Rokeach Dogmatism Scale.
7. A relationship was found between intern expressed preference for selected supervisory method of operation as measured by the ICI and his attitude toward children as measured by the MTAI. Interns with more positive attitudes toward children preferred supervisory approach to problem situations which were practical, indirect, and allowed the intern to initiate action.

8. No relationship was found between intern expressed preference for selected supervisory method of operation as measured by the ICI and need pattern as measured by the EPPS.

Implications for Teacher Education

An investigation of the relationship between beginning teachers' preference for supervisory behaviors and their personal characteristics is a relatively new dimension in teacher education research. Of the conclusions drawn from this investigation all were strictly limited, as they must be, to the parameters delineated by each hypothesis. The discussion which follows is designed to clarify, extend, and relate the findings of this study to teacher education.

The relationship between intern preference for supervisory tasks and sex suggests that males and females differ in their preference for supervisory tasks. The significance of the positive multiple R suggests that females tended to have a higher preference for supervisory tasks than males. Males may have been more independent, have fewer teaching problems than females, or failed to recognize their need for assistance. Female interns may have had a close relationship with their supervisors, as most intern consultants were women, and therefore indicated a greater preference for supervisory assistance.

Further examination of preference for supervisory tasks categories on which differences tended to occur was undertaken for more meaningful discussion. Therefore the multiple regression analysis presented in Table 3.3 was reinterpreted.

Table 4.1 is a reconstruction of the multiple regression analysis reported in Table 3.3 with partial correlation coefficients interpreted on the basis of their direction. The "X" indicates a tendency for a group to favor a particular category over another.

TABLE 4.1.--Summary of intern preference for supervisory tasks by sex.

Supervisory Tasks	Sex	
	Male	Female
Classroom Management Techniques	X	
Conditions of Learning		X
Planning for Learning Experiences		X
Evaluation of Learning		X
Analyzing Teaching Behavior	X	
Supportive Consultant Behavior		X

Note: X = tendency for greater preference.

A review of Table 4.1 suggests that females tended to prefer categories of supervisory tasks which were more closely associated with teaching lessons to pupils and human relations. Males, however, tended to favor those

categories of supervisory tasks more directly related to the teacher. One possible implication is that females may have a greater concern for the welfare of the child than males. Males, however, may be more concerned with the physical environment and their own teaching techniques, both of which are of indirect influence on the child.

A second interpretation of these data is that interns may have been aware of their teaching strengths and weakness and were realistic by indicating a high preference for those supervisory tasks which corresponded with their need. The study of teaching characteristics by Ryans[1] lends some support to this tentative conclusion.

Ryans found that men and women differed on four of the personal-social characteristics studied; men were less responsible and business-like in classroom behavior and more favorable toward democratic practices, more inclined toward permissive child-centered educational view points, and more emotionally stable than women.

A comparison of Ryans' findings with male and female preferences for supervisory tasks suggests that interns may have sensed their teaching weakness and thus favored those categories of supervisory tasks which would strengthen them. Further evidence would be required to substantiate this observation.

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[1]Ryans, op. cit.

The positive relationship found between intern attitude toward children and their preference for supervisory behaviors, (i.e., tasks and method of operation) suggests higher preference for assistance with those teaching behaviors which characterize positive teacher attitudes. Cook, Leeds, and Callis[2] describe those behaviors as:

(1) being able to maintain a state of harmonious relations with his pupils,

(2) frankly admitting teacher and pupil inadequacies and shortcomings as something to be overcome, not ridiculed and,

(3) recognizing pupil abilities and strengths and using them to the utmost for the benefit of the group.

The teaching behaviors listed above reflect teacher desire to maintain the best possible conditions which facilitate learning and a willingness to work toward solutions of problem situations. The association of positive attitudes with supervisory tasks suggests that interns who hold positive attitudes toward children may likely perceive those tasks as important and thus indicate a greater preference for assistance with them than interns with less positive attitudes.

The above is not to suggest that interns who held either positive or negative attitudes toward children have

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[2]Cook, Leeds, and Callis, op. cit., p. 4.

any more or fewer teaching problems. However, results do reflect a desire by interns who have positive attitudes to work toward improvement of those selected teaching behaviors identified by the Intern Consultant Inventory.

Interns who held more positive attitudes toward children tended to prefer supervisory method of operation which reflected on approach to problem situations by: (1) being practical and suggesting procedures based on experience, (2) allowing the intern to take necessary action, and (3) aiding the intern to identify procedures through discussion. The implication may be that interns with more positive attitudes desired an intern-supervisory relationship in their teaching situation that provided advice and guidance with freedom to act on problem situations.

Beginning teacher differences in preference for supervisory behavior and their relationship to beginning teacher personal characteristics should remain important considerations for supervising beginning teachers. Greater emphasis sould be placed on the individual characteristics of the beginning teacher.

The results of this study indicate that supervisory practices should be tailored to fit the individual needs of the teacher trainee. Joint efforts could be made by the supervisor and trainee to identify areas of teacher behavior which require improvement. Identification

procedures could include objective measures which provide supervisor and trainee with a common frame of reference. Successful supervision may be dependent upon the degree to which the supervisor assists each novice in teaching areas which he considers important.

Responses by beginning teachers to preference for supervisory behavior could serve as useful data for training supervisors. The Intern Consultant Inventory could serve to provide role definition for supervisors of intern teachers, beginning teachers, and student teachers. The instrument could also provide feedback to supervisors, on a continuing basis, for revision of their role as they work with the neophyte. The beginning supervisor may find the Intern Consultant Inventory a useful tool for defining and evaluating their supervisory role. Not all supervisory behaviors were equally preferred which implies modification of some supervisor-practice and elimination of others which lead to a more successful supervisor trainee relationship.

The teacher trainee and supervisor relationship may profit from the pairing of supervisor with trainee, based on personal characteristics and preference for supervisory behavior. This observation is substantiated by wide variation in personal characteristics and preference for supervisory behavior reported in this study.

The findings of this study lend further support to the concerns previously identified in the related literature. Clear recognition was given to: (1) the problems the beginner must face, (2) the concern for the quality of supervision afforded beginning teachers, (3) the need to individualize supervisory practices, and (4) the unique personal characteristics of the beginning teacher. These factors should not be ignored when consideration is given to beginning teacher supervision and teacher education programs.

Implications for Further Research

This study was an exploratory effort to determine the relationship between intern personal characteristics and their preference for selected supervisory behaviors. Further research that would verify and extend the findings of this study could provide useful information for teacher education. Replication of this study using an analysis of variance procedure would allow an exploration of combined personal characteristics in relation to preference for supervisory behaviors.

This study was limited to personal characteristics and supervisory behaviors selected by the researcher. More evidence is needed to help understand the relation between preference for supervisor behavior and personal characteristics. Research comparing personal characteristics such as age, anxiety, authoritarianism, and/or other personal

characteristics could increase understanding of factors that influence preference for supervisory behavior, and indirectly teaching performance.

Research which explores differences in preference for supervisory behaviors between interns of differing grade levels, elementary and secondary student teachers, student teachers teaching different subject areas, and student teachers with beginning teachers is needed. Preference for supervisor behavior by intern teachers, student teachers, and beginning teachers who teach in different educational settings and who are prepared in other teacher institutions could be studied. Information resulting from such investigations could provide useful information for supervisory practices.

Research results which view preference for supervisory behavior over time could be useful. Measures of preference for supervisory behavior taken prior to, during, and at the end of a student teaching or internship experience could be compared. Information of this type may have further implications for teacher education.

A study of beginning teacher classroom performance and their preference for supervisory behavior may explain the extent to which teaching strengths and weaknesses are related to their preference for assistance. Beginning teacher preference for supervisory behavior could be compared with: (1) pupil-teacher verbal interaction, (2)

pupil achievement, and/or (3) teaching problems. Other investigations could be made which compare beginning teacher preference for supervisory behavior with: (1) a self assessment of teaching performance, (2) their perceived need for assistance, or (3) supervisor's rating of beginning teacher classroom performance. Research of this nature may serve to identify additional factors which influence preference for supervisory behavior and thus provide information applicable to teacher education.

Finally, continued revision of the Intern Consultant Inventory may serve to strengthen the measurement capability of the instrument. Specifically needed are efforts which include: (1) development of additional items, (2) item revision which employ item analysis procedures, and (3) development and inclusion of additional categories of teaching behavior. Further attempts to construct other instruments which measure preference for supervisory behavior are encouraged.

APPENDICES

APPENDIX I

INTERN CONSULTANT INVENTORY AND SUPPORTIVE DATA

TABLE OF CONTENTS: APPENDIX I

Dear Intern - Intern Consultant:

Your cooperation is requested in our attempts to conduct E.I.P. research.

Your participation in this program during this school year has provided you with unique experiences. Your responses to this instrument will enable us to draw conclusions and make generalizations about E.I.P. which we could not do without your involvement.

We appreciate your cooperation and participation in this project. We will be pleased to send you a summary of the reaction results if you desire. The success of this inquiry is wholly dependent upon your completing the entire questionnaire. All information will be held in the strictest confidence and will not be reported either by individuals or by centers.

Thank you very much for your help.

Sincerely,

Gerald Inman
Thomas Fitch
Former Intern Consultants

INTERN REACTIONNAIRE - Part I

INSTRUCTIONS:

1. Place your name and student number on the answer sheet.

2. On the answer sheet where it asks for course name, place your maiden name if appropriate.

3. For item numbered 1 on the answer sheet select one of the following:

   A. Single B. Married C. Separated D. Divorced E. Widow or Widower

4. The information obtained on this reactionnaire will be held in the strictest confidence. It will not be reported to school or college administrators, center coordinators, or intern consultants.

5. On the following pages, you will find a number of descriptive statements of intern consultant behavior.

6. Read each statement carefully.

7. Below each descriptive statement are two scales, please respond to each.

8. The first response scale, under each descriptive statement, will allow you to indicate whether or not you prefer that particular consultant behavior.

9. The second response scale, under each descriptive statement, will allow you to indicate the frequency of occurrance for that specific behavior.

   EXAMPLE

   Descriptive statement - The consultant encourages the intern to be consistant regarding pupils behavior and academic standards.

94)	A	B	C	D	E
	Definitely not preferred behavior				Very highly preferred behavior

95)	A	B	C	D	E
	Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

After carefully reading the statement, select the letter on the first scale that most closely approximates your feeling of preference. On the answer sheet mark the letter that corresponds with your selection for each numbered scale.

10. Please respond to each item as it would apply to your specific intern consultant not to intern consultants in general.

The consultant helps the intern interpret information within the child's cumulative records.

2.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

3.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant helps the intern plan and set behavioral goals for instructional experiences.

4.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

5.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant suggest various seating arrangements for alternating traffic flow, group project work space, and distribution of materials.

6.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

7.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant aids the intern to organize for future events (school calendar, holidays, parent conferences).

8.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

9.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant uses questions which subtly point out the intern's teaching weakness.

10.

A	B	C	D	E
Definitely not preferred behavior				Very Highly preferred behavior

11.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant helps the intern realize that a child's ability to learn is closely related to the child's self concept.

12.

A	B	C	D	E
Definitely not preferred behavior				Very Highly preferred behavior

13.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant provides the intern with new ideas for lessons and units.

14.

A	B	C	D	E
Definitely not preferred behavior				Very Highly preferred behavior

15.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant helps the intern locate and select appropriate instructional materials.

16.

A	B	C	D	E
Definitely not preferred behavior				Very Highly preferred behavior

17.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant helps the intern select learning materials specifically for particular pupil's needs.

18.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

19.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant is available, on-call, to the intern after the normal school day.

20.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

21.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant urges the intern to give continued attention to ventilation, lighting, seating, and other physical conditions within the intern's classroom.

22.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

23.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant encourages the intern to adjust his teaching to the interests, maturity, and experiential background of the learner.

24.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

25.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant helps the intern to interpret a child's standarized test results.

26.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

27.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant aids the intern to develop within a framework of professional autonomy and freedom.

28.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

29.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant builds up the intern's ego by emphasizing the intern's personal and professional strengths.

30.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

31.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

After demonstrating a teaching technique the consultant discusses and analyzes that method with the intern.

32.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

33.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant points out examples of child growth and development to the intern within the intern's classroom.

34.

A	B	C	D	E
Definitely not preferred				Very highly preferred

35.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant shares with the intern a very close and "open" relationship where each says what they really feel.

36.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

37.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant recommends specific methods of teaching for the intern's implementation.

38.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

39.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant aids the intern to inventory the intern's class to determine interests, problems, strengths, self-concepts, and attitudes.

40.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

41.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant provides evaluations for the intern that promote self direction.

42.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

43.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant follows the classroom observation with a written critique of the intern's teaching.

44.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

45.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant helps the intern to diagnose individual and class learning difficulties.

46.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

47.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

The consultant encourages the intern to establish and maintain a daily, weekly, monthly, yearly schedule.

48.

A	B	C	D	E
Definitely not preferred behavior				Very highly preferred behavior

49.

A	B	C	D	E
Never occurs	Occurs yearly	Occurs monthly	Occurs weekly	Occurs daily

INSTRUCTIONS

1. On the following pages, you will find six different classroom problem situations to which you are asked to respond.

2. Read each problem situation carefully.

3. Each problem situation is followed by six different reaction scales. Please respond to each of the six scales.

4. After carefully reading a problem situation, select the letter on each scale which is your best estimate or appraisal. On the answer sheet fill in the space that corresponds with your selection for each numbered scale.

EXAMPLE

Assume it is the beginning of the school year, you are experiencing difficulty in attending to the needs of several reading groups simultaneously, . . . in short you lack organization.

IF THIS PROBLEM OCCURRED:

96) How would your consultant most likely behave?

97) What consultant behavior would you prefer?

	A	B	C	D	E	
THEORETICAL						PRACTICAL
	Tends to examine underlying educarional theory before considering specific action.				Tends to suggest particular procedures which have worked in the past.	

5. For the example numbered 96 above, select a letter on the continuum and mark that letter on the answer sheet.

6. Follow the same procedure for each of the five other scales under each problem situation.

Assume as an intern you feel that you are weak in diagnosing a pupil's learning difficulty. You wish to diagnose the pupil's difficulty in arithmetic and plan specific lessons on which will strengthen the pupil's learning weakness.

IF THIS PROBLEM OCCURRED:

50. How would your consultant most likely behave?

	A	B	C	D	E	
THEORETICAL						PRACTICAL

51. What consultant behavior would you prefer?

	A	B	C	D	E	
	Tends to examine underlying educational theory before considering specific action.				Tends to suggest particular procedures which have worked in the past	

52. How would your consultant most likely behave?

	A	B	C	D	E	
CONSULTANT						INTERN

53. What consultant behavior would you prefer?

	A	B	C	D	E	
	Consultant takes necessary action.				Intern takes necessary action.	

54. How would your consultant most likely behave?

	A	B	C	D	E	
DIRECT						INDIRECT

55. What consultant behavior would you prefer?

	A	B	C	D	E	
	Consultant prescribes; insists on specific steps; tells intern.				During discussion, intern identifies procedures; consultant asks questions.	

Assume as an intern you feel something is wrong with the pacing of your lessons during the school day. There is a lull in the middle of the afternoon. Your intern consultant agrees with this analysis.

IF THIS PROBLEM OCCURRED:

56. How would your consultant most likely behave?

	A	B	C	D	E	
THEORETICAL						PRACTICAL

57. What consultant behavior would you prefer?

	A	B	C	D	E	
	Tends to examine underlying educational theory before considering specific action.				Tends to suggest particular procedures which have worked in the past.	

58. How would your consultant most likely behave?

	A	B	C	D	E	
CONSULTANT						INTERN

59. What consultant behavior would you prefer?

	A	B	C	D	E	
	Consultant takes necessary action.				Intern takes necessary action.	

60. How would your consultant most likely behave?

	A	B	C	D	E	
DIRECT						INDIRECT

61. What consultant behavior would you prefer?

	A	B	C	D	E	
	Consultant prescribes; insists on specific steps; tells intern.				During discussion, intern identifies procedures; consultant <u>asks</u> questions.	

SITUATION FOUR

Assume that you and your intern consultant have just watch a video-tape replay of a lesson you taught. In this particular lesson you planned to involve pupils actively. Your directions to pupils were not as clear and concise as you had hoped.

IF THIS PROBLEM OCCURRED:

68. How would your consultant most likely behave?

69. What consultant behavior would you prefer?

	A	B	C	D	E	
THEORETICAL						PRACTICAL
Tends to examine underlying educational theory before considering specific action.						Tends to suggest particular procedures which have worked in the past.

70. How would your consultant most likely behave?

71. What consultant behavior would you prefer?

	A	B	C	D	E	
CONSULTANT						INTERN
Consultant takes necessary action.						Intern takes necessary action.

72. How would your consultant most likely behave?

73. What consultant behavior would you prefer?

	A	B	C	D	E	
DIRECT						INDIRECT
Consultant prescribes; insists on specific steps; tells intern.						During discussion, intern identifies procedures; consultant <u>asks</u> questions.

SITUATION FIVE

Assume that within your intern teaching situation there is not a written or "set" policy related to the rentention of students. However, only on rare occasions have pupils been retained. You believe a particular pupil is emotionally, socially, and intellectually incapable of suceeding in the next grade and therefore wish to retain the pupil. Your principal maintains that the pupil should not be retained. There is obvious conflict.

IF THIS PROBLEM OCCURRED:

74. How would your consultant most likely behave?

75. What consultant behavior would you prefer?

	A	B	C	D	E	
	Tends to examine underlying educational theory before considering specific action.				Tends to suggest particular procedures which have worked in the past	
THEORETICAL						PRACTICAL

76. How would your consultant most likely behave?

77. What consultant behavior would you prefer?

	A	B	C	D	E	
	Consultant takes necessary action.				Intern takes necessary action.	
CONSULTANT						INTERN

78. How would your consultant most likely behave?

79. What consultant behavior would you prefer?

	A	B	C	D	E	
	Consultant prescribes; insists on specific steps; tells intern.				During discussion, intern identifies procedures; consultant asks questions.	
DIRECT						INDIRECT

APPENDIX I-B

INTERN CONSULTANT INVENTORY, CATEGORY DEFINITIONS AND ITEM NUMBERS

Supervisory Assisting Tasks (Part A)

Six basic categories were formed each related directly to intern classroom teaching behavior. The intern consultant provided assistance to the intern with each of the categories of teaching behavior.

1. Management techniques, Items 6, 8, 22, 48
   a. Physical environment of the classroom
   b. Routine household chores
   c. The keeping of records
2. Conditions of Learning, Items 12, 18, 24, 34
   a. Recognize individual differences among children
   b. Organizing for child centered instruction
3. Planning for Learning Experiences, Items 4, 14, 16, 38
   a. Setting of objectives
   b. Choice of methods
   c. Selection of content
4. Evaluation of Learning, Items 2, 26, 40, 46
   a. Diagnosing pupil's learning difficulty
   b. Interpreting test data

5. Analyzing Teaching Behavior, Items 10, 32, 42, 44
   a. Writing critiques on the intern's teaching
   b. Conferencing with the intern
6. Supportive Consultant Behavior, Items 20, 28, 30, 36
   a. Building the intern's self concept
   b. Maintaining a non-threatening relationship

Supervisory Method of Operation (Part B)

The three basic categories of supervisory method of operation are procedures, processes, or methods employed to assist the intern with a problem situation.

1. Theoretical-Practical orientation, Items 51, 57, 63, 69, 75. A tendency to examine underlying educational theory before considering specific action.
2. Intern-Intern Consultant Actuator, Items 53, 59, 65, 71. Refer to the degree of supervisory involvement in a problem situation. Take the offensive in situations or beginning action to solve a problem opposed to the intern initiating action.
3. Directive-Non-Directiveness, Items 55, 61, 67. 73, 74. Prescribing, insisting on specific steps to take, or titling exactly what to do opposed to offering suggestions which allow the intern to determine specific steps.

APPENDIX I-C

FREQUENCY DISTRIBUTION OF RESPONSES FOR EACH ITEM ON INTERN CONSULTANT INVENTORY

Supervisory Tasks

Management Techniques

	Definitely not preferred behavior				Very highly preferred behavior
	A	B	C	D	E
ICI Item					
6	13	24	63	49	36
8	9	17	39	59	61
22	12	31	70	38	34
48	15	17	55	49	49

Conditions of Learning

	Definitely not preferred behavior				Very highly preferred behavior
	A	B	C	D	E
ICI Item					
12	6	7	48	57	67
18	2	4	28	48	103
24	4	13	47	58	63
34	6	9	42	59	69

Planning for Learning Experiences

	Definitely not preferred behavior				Very highly preferred behavior
	A	B	C	D	E
ICI Item					
4	5	19	66	51	44
14	0	3	15	48	119
16	0	2	20	39	124
38	7	19	54	47	58

Evaluation of Learning

ICI Item	Definitely not preferred behavior A	B	C	D	Very highly preferred behavior E
2	6	14	69	43	53
26	7	10	43	52	73
40	4	11	34	64	72
46	2	3	28	57	95

Analyzing Teaching Behavior

ICI Item	Definitely not preferred behavior A	B	C	D	Very highly preferred behavior E
10	21	17	35	54	58
32	6	9	37	57	76
42	49	40	54	34	8
44	30	25	36	33	61

Supportive Consultant Behavior

ICI Item	Definitely not preffered behavior A	B	C	D	Very highly preferred behavior E
20	4	8	29	43	101
28	3	12	34	48	88
30	2	7	29	51	96
36	3	2	11	45	124

Supervisory Method of Operation

Theoretical-Practical

ICI Item	Definitely not preferred behavior A	B	C	D	Very highly preferred behavior E
51	1	8	31	75	70
57	1	6	44	70	64
63	6	11	40	64	64
69	4	12	49	59	61
75	17	24	55	39	50

Active Participation

ICI Item	Definitely not preferred behavior A	B	C	D	Very highly preferred behavior E
53	4	17	59	48	57
59	4	12	52	61	56
65	8	19	53	61	44
71	3	10	49	63	60
77	10	30	64	36	45

Directive-Non-Directiveness

ICI Item	Definitely not preferred behavior A	B	C	D	Very highly preferred behavior E
55	10	9	59	47	60
61	6	12	54	63	50
67	6	12	46	70	51
73	4	12	48	67	54
79	11	28	60	48	38

APPENDIX I-D

ITEM INTERCORRELATION MATRIX FOR TEST A, PREFERENCE

FOR SELECTED INTERN CONSULTANT TASKS

r	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1.00	.22	.30	.30	.21	.18	.30	.10	.41	.31	.16	.36	.17	.08	.23	.23	.16	.35	.16	.25	.14	.17	.14	.18
2		1.00	.13	.15	.06	.11	.08	.23	.29	.17	.23	.16	.35	.17	.12	.34	.02	.09	.21	.11	.15	.12	.35	.19
3			1.00	.40	.33	.23	.48	.23	.26	.24	.18	.27	.23	.20	.25	.20	.22	.25	.22	.24	.22	.31	.31	.12
4				1.00	.19	.24	.38	.26	.32	.21	.06	.35	.10	.14	.34	.32	.16	.34	.35	.39	.15	.19	.30	.14
5					1.00	.29	.43	.26	.30	.18	.23	.20	.13	.13	.26	.21	.00	.14	.19	.11	-.01	.34	.27	.17
6						1.00	.38	.40	.28	.43	.42	.22	.09	.29	.29	.43	.16	.22	.28	.20	.22	.22	.22	.44
7							1.00	.35	.25	.38	.21	.34	.17	.19	.38	.35	.24	.32	.20	.27	.19	.35	.31	.20
8								1.00	.36	.32	.35	.31	.31	.24	.45	.49	.16	.30	.42	.27	.20	.20	.40	.33
9									1.00	.28	.24	.33	.28	.17	.24	.31	.09	.25	.34	.42	.16	.18	.25	.15
10										1.00	.48	.27	.16	.11	.45	.48	.13	.14	.30	.18	.10	.24	.29	.32
11											1.00	.16	.14	.20	.33	.30	.16	.09	.31	.05	.24	.30	.36	.42
12												1.00	.19	.17	.35	.21	.23	.37	.19	.45	.18	.12	.24	.29
13													1.00	.36	.31	.38	.04	.20	.26	.24	.08	.11	.32	.15
14														1.00	.20	.28	.17	.27	.34	.24	.20	.13	.29	.27
15															1.00	.52	-.08	.22	.41	.18	.07	.25	.24	.24
16																1.00	.02	.21	.48	.25	.13	.25	.38	.44
17																	1.00	.19	.16	.16	.08	.09	.20	.13
18																		1.00	.22	.34	.18	.29	.17	.25
19																			1.00	.43	.03	.28	.36	.38
20																				1.00	.15	.04	.24	.21
21																					1.00	.16	.25	.07
22																						1.00	.39	.23
23																							1.00	.30
24																								1.00

APPENDIX I-E

INTERN INTERCORRELATION MATRIX FOR TEST B, PREFERENCE FOR INTERN CONSULTANT METHOD OF OPERATION

r	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1.00	.50	.46	.46	.36	.16	.13	.16	.17	.15	.17	.17	.18	.12	.11
2		1.00	.44	.50	.24	.15	.21	.22	.28	.15	.13	.17	.26	.17	.10
3			1.00	.42	.43	.13	.17	.24	.21	.03	.21	.12	.19	.20	.04
4				1.00	.34	.12	.10	.15	.23	.10	.11	.15	.12	.17	.05
5					1.00	.07	.13	.13	.11	.04	.09	.21	.02	.08	.02
6						1.00	.64	.54	.53	.37	.31	.23	.28	.27	.18
7							1.00	.60	.61	.35	.36	.35	.31	.32	.21
8								1.00	.51	.37	.27	.33	.37	.30	.17
9									1.00	.39	.28	.28	.36	.45	.16
10										1.00	.27	.23	.25	.22	.47
11											1.00	.58	.53	.47	.42
12												1.00	.59	.39	.28
13													1.00	.51	.35
14														1.00	.33
15															1.00

APPENDIX I-F

INTERCORRELATIONAL MATRIX BETWEEN INTERN CONSULTANT INVENTORY CATEGORIES

	Preference for Supervisory Tasks (Part A)						Preference for Supervisory Method of Operation (Part B)		
	P_1	P_2	P_3	P_4	P_5	P_6	P_7	P_8	P_9
P_1	1.00								
P_2	-0.03	1.00							
P_3	0.02	0.49	1.00						
P_4	-0.00	0.54	0.60	1.00					
P_5	-0.01	0.44	0.54	0.48	1.00				
P_6	0.05	0.50	0.41	0.50	0.32	1.00			
P_7	0.02	0.45	0.54	0.49	0.46	0.37	1.00		
P_8	-0.03	0.04	0.03	0.02	0.05	0.11	0.05	1.00	
P_9	-0.05	-0.11	-0.14	-0.16	-0.15	-0.03	-0.05	0.16	1.00

LEGEND:

Part A

P_1 = Classroom Management Techniques

P_2 = Conditions of Learning

P_3 = Planning for Learning Experiences

P_4 = Evaluation of Learning

P_5 = Analyzing Teaching Behavior

P_6 = Supportive Consultant Behavior

Part B

P_7 = Theoretical-Practical

P_8 = Intern-Intern Consultant Actuator

P_9 = Directive-Non-Directive

APPENDIX II

ROKEACH DOGMATISM SCALE--SHORT FORM

Rokeach Dogmatism Scale--Short Form*

Directions: You will read below some statements people have made as their opinion on several topics. You may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you agree or disagree with any statement, you can be sure that many other people feel the same as you do.

We want your personal opinion on each statement. When you read each one, first indicate whether, in general, you agree or disagree with it:

In column I mark (+) or (-):

+ = agree

- = disagree

Then indicate how strongly you agree of disagree.

In column II mark 1, 2, or 3:

Agree		Disagree	
1.	Agree a little	1.	Disagree a little
2.	Agree on the whole	2.	Disagree on the whole
3.	Agree very much	3.	Disagree very much

*No title appeared on instrument used in study.

I	II		
___	___	1.	In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.
___	___	2.	My blood boils whenever a person stubbornly refuses to admit he's wrong.
___	___	3.	There are two kinds of people in this world: those who are for the truth and those who are against the truth.
___	___	4.	Most people just don't know what's good for them.
___	___	5.	Of all the different philosophies which exist in this world there is probably only one which is correct.
___	___	6.	The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
___	___	7.	The main thing in life is for a person to want to do something important.
___	___	8.	I'd like it if I could find someone who would tell me how to solve my personal problems.
___	___	9.	Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
___	___	10.	Man on his own is a helpless and miserable creature.
___	___	11.	It is only when a person devotes himself to an ideal or cause that life becomes meaningful.
___	___	12.	Most people just don't give a "damn" for others.
___	___	13.	To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
___	___	14.	It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.

I II

___ ___ 15. The PRESENT is all too often full of unhappiness. It is only the FUTURE that counts.

___ ___ 16. The United States and Russia have just about nothing in common.

___ ___ 17. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.

___ ___ 18. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.

___ ___ 19. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.

___ ___ 20. It is better to be a dead hero than to be a live coward.

APPENDIX III

THE MANIFEST NEEDS ASSOCIATED WITH EACH OF THE FIFTEEN EDWARDS PERSONAL PREFERENCE SCHEDULE VARIABLES

THE MANIFEST NEEDS ASSOCIATED WITH EACH OF THE FIFTEEN EDWARDS PERSONAL PREFERENCE SCHEDULE VARIABLES

1. Achievement: To do one's best, to be successful, to accomplish tasks requiring skill and effort, to be a recognized authority, to accomplish something of great significance, to do a difficult job well, to solve difficult problems and puzzles, to be able to do things better than others, to write a great novel or play.

2. Deference: To get suggestions from others, to find out what others think, to follow instructions and do what is expected, to praise others, to tell others that they have done a good job, to accept the leadership of others, to read about great men, to conform to custom and avoid the unconventional, to let others make decisions.

3. Order: To have written work neat and organized, to make plans before starting on a difficult task, to have things organized, to keep things neat and orderly, to make advance plans when taking a trip, to organize details or work, to keep letters and files according to some system, to have meals organized and a definite time for eating, to have things arranged so that they run smoothly without change.

4. Exhibition: To say witty and clever things, to tell amusing jokes and stories, to talk about personal adventures and experiences, to have others notice and comment upon one's appearance, to say things just to see what effect it will have on others, to talk about personal achievements, to be the center of attention, to use words that others do not know the meaning of, to ask questions others cannot answer.

5. Autonomy: To be able to come and go, as desired, to say what one thinks about things, to be independent of others in making decisions, to feel free to do what one wants, to do things that are unconventional, to avoid situations where one is expected to conform, to do things without regard to what others may think, to criticize those in positions of authority, to avoid responsibilities and obligations.

6. Affiliation: To be loyal to friends, to participate in friendly groups, to do things for friends, to form new friendships, to make as many friends as possible, to share things with friends, to do things with friends, rather than alone, to form strong attachments, to write letters to friends.

7. Intraception: To analyze one's motives and feelings, to observe others, to understand how others feel about problems, to put one's self in anothers' place, to judge people by why they do things rather than by what they do, to analyze the behavior of others, to analyze the motives of others, to predict how others will act.

8. Succorance: To have others provide help when in trouble, to seek encouragement from others, to have others be kindly, to have others be sympathetic and understanding about personal problems, to receive a great deal of affection from others, to have others do favors cheerfully, to be helped by others when depressed, to have others feel sorry when one is sick, to have a fuss made over one when hurt.

9. Dominance: To argue for one's point of view, to be a leader in groups to which one belongs, to be regarded by others as a leader, to be elected or appointed chairman of committees, to make group decisions, to settle arguments and disputes between others, to persuade and influence others to do what one wants, to supervise and direct the actions of others, to tell others how to do their jobs.

10. Abasement: To feel guilty when one does something wrong, to accept blame when things do not go right, to feel that personal pain and misery suffered does more good than harm, to feel the need for punishment for wrong doing, to feel better when giving in and avoiding a fight than when having one's own way, to feel the need for confession of errors, to feel depressed by inability to handle situations, to feel timid in the presence of superiors, to feel inferior to others in most respects.

11. Nurturance: To help friends when they are in trouble, to assist others less fortunate, to treat others with kindness and sympathy, to forgive others, to do small favors for others, to be generous with others, to sympathize with others who are hurt or sick, to show a great deal of affection toward others, to have others confide in one about personal problems.

12. Change: To do new and different things, to travel to meet new people, to experience novelty and change in daily routine, to experiment and try new things, to eat in new and different places, to try new and different jobs, to move about the country and live in different places, to participate in new fads and fashions.

13. Endurance: To keep at a job until it is finished, to complete any job undertaken, to work hard at a task, to keep at a puzzle or problem until it is solved, to work at a single job before taking on others, to stay up late working in order to get a job done, to put in long hours of work without distraction, to stick at a problem even though it may seem as if no progress is being made, to avoid being interrupted while at work.

14. Heterosexuality: To go out with members of the opposite sex, to be in love with someone of the opposite sex, to kiss those of the opposite sex, to be regarded as physically attractive by those of the opposite sex, to participate in discussions about sex, to read books and plays involving sex, to listen to or tell jokes involving sex, to become sexually excited.

15. Aggression: To attack contrary points of view, to tell others what one thinks about them, to criticize others publicly, to make fun of others, to tell others off when disagreeing with them, to get revenge for insults, to become angry, to blame others when things go wrong, to read newspaper accounts of violence.

Taken from: Allen L. Edwards, Edwards Personal Preference Schedule: Manual, 1959 rev. (New York: The Psychological Corporation, 1959), p. 11.

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