

ATTITUDES OF SPECIAL EDUCATORS
TOWARD THE PHYSICALLY HANDICAPPED
AND TOWARD EDUCATION

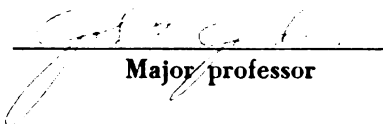
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ABSTRACT

ATTITUDES OF SPECIAL EDUCATORS TOWARD THE PHYSICALLY HANDICAPPED AND TOWARD EDUCATION

by John Buckingham Nader

The primary focus of the present study was an evaluation of the attitudes of sub-groups of special educators toward the handicapped and toward education. A secondary purpose was the collection of data on special educators in such a manner that it could be incorporated in a larger cross-cultural study being conducted under the direction of Dr. John E. Jordan, College of Education, Michigan State University.

The theoretical framework of the study is generally consistent with the social-psychological orientation expressed by Wright and Meyerson as far as attitudes toward physical disability are concerned. Relationships existing among attitudes, values, selected demographic variables, and contact with the handicapped and with education are explored in this context. The assumption was made that sub-sets of special educators would view the handicapped from an asset rather than a comparative value orientation and that this postulated orientation would generalize to favorable progressive attitudes toward education as well as

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JOHN BUCKINGHAM MADER

favorable attitudes toward change orientation as measured by the indices of the study.

The Attitudes Toward Education Scale, developed by Kerlinger, was used to measure both progressive and traditional attitudes toward education. The Attitudes Toward Disabled Persons Scale, developed by Yuker and associates, was utilized to measure attitudes of the respondents toward the handicapped. Both the education scales and the measure of attitudes toward disabled persons were modified with a Likert-type intensity statement allowing each respondent to indicate how strongly (i.e., sure) he felt about his answer to the content statements of the two scales.

Asset and comparative value orientations were measured by three sub-scales of the Survey of Interpersonal Values developed by Gordon. The Benevolence sub-scale was utilized as a measure for asset value orientation while the Leadership and Recognition sub-scales were used to measure a comparative value orientation.

318 special educators representing 7 areas of exceptionality responded to five questionnaires requiring an administration time of approximately one hour. The sub-groups were as follows: Educable mentally handicapped (EMH),

JOHN BUCKINGHAM MADER

trainable mentally handicapped (TMH), hearing handicapped (DHH), visually handicapped (BPS), speech handicapped (S), visiting teachers (VT), and diagnosticians (D).

Data from the sub-groups of special educators was analyzed utilizing two-way analysis of variance statistics. The program was designed for the management of unequal frequencies occurring in the various categories. Zero-order as well as partial and multiple correlations were also used. Duncan's New Multiple Range Test, as extended for unequal replications was used to investigate the extent to which a particular sub-group mean contributed to the total variance represented by the F test.

Some findings of general interest were the following:

When the attitudes of sub-groups of special educators toward the handicapped were compared by sex and by group no significant results were obtained.

Comparison of the Benevolence and Recognition values held by the sub-sets of special educators revealed no significant differences when analysis was made by group and by sex. The Leadership values held by the (D) group was significantly higher than those held by the (BPS) and (EMH) groups. When scores representing each of these values were

JOHN BUCKINGHAM MADER

compared with scores of other groups reported by Gordon it was concluded that special educators are more benevolent and hold Leadership values (a comparative orientation) in less esteem than do non-special educators. The results also indicated that when the total special education group was compared by sex the females held higher Benevolence values than the males.

When scores indicating attitudes toward traditional education were compared by sex for the total group no significant differences were revealed. There were, however, significant group differences with classroom teachers of the handicapped (EMH, DHH, BPS) holding significantly greater traditional orientations than the itinerant groups (S, D). While there were neither significant group or sex differences among the scores on measures of progressive attitudes toward education it was noted that all itinerant special educators scored' higher on these measures than did the classroom teachers of the handicapped.

ATTITUDES OF SPECIAL EDUCATORS TOWARD
THE PHYSICALLY HANDICAPPED AND THEIR EDUCATION

BY

John Buckingham Heday

A THESIS

Submitted to the
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Department of Educational Psychology
College of Education

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ATTITUDES OF SPECIAL EDUCATORS TOWARD
THE PHYSICALLY HANDICAPPED AND TOWARD EDUCATION

BY

John Buckingham Mader

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PREFACE

This study is one in a series, jointly designed by several investigators as an example of the concurrent-replicative model of cross cultural research. A common use of instrumentation, theoretical material, as well as techniques of instrumentation, theoretical material, as well as techniques and analyses procedures was both necessary and desirable.

The authors, therefore, collaborated in many respects although the data were different in each study as well as certain design, procedural, and analyses approaches. The specific studies are discussed more fully in the review of literature chapter in each of the individual investigations.

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ACKNOWLEDGMENTS

PREFACE

Appreciation for guidance and support is extended to Dr. John E. Jordan, chairman of my advisory committee. Without Dr. Jordan's counsel and encouragement, this thesis would not have been possible. A common use of instrumentation, theoretical material, as well as technical, and analyses procedures was both necessary and desirable.

The authors, therefore, collaborated in many respects although the data were different in each study as well as certain design, procedural, and analyses approaches. The specific studies are discussed more fully in the review of literature chapter in each of the individual investigations.

Ann Arbor, Michigan I extend a sincere thank you. My undertaking of this project placed me in a position of responsibility on their shoulders which they accepted without complaint and in a most efficient manner.

To my wife Patricia and my daughter Patricia, Kim, Christy, and David, I owe a great debt. A task of this magnitude could not have been undertaken without their love, support, and encouragement.

ACKNOWLEDGMENTS

Appreciation for guidance and support is extended to Dr. John E. Jordan, chairman of my advisory committee. Without Dr. Jordan's counsel and encouragement this thesis would not have been possible. Appreciation is also extended to Dr. Fredrick Vescaloni, Dr. William Durr, and Dr. Charles Pedrey who served on the advisory committee and gave encouragement by accepting the basic research design which has to be considered an exploratory project.

To Miss Jeannette East who prepared this manuscript for publication and the members of the administrative and teaching staff of the University Hospital Schools in Ann Arbor, Michigan I extend a sincere thank you. My undertaking of this project placed additional duties and responsibilities on their shoulders which they accepted without complaint and in a supportive spirit.

To my wife Patricia and to my children Kathleen, Kelleen, Kim, Christopher, and Craig I owe the greatest debt. A task of this magnitude could not have been undertaken without their unselfish support and encouragement.

TABLE OF CONTENTS

	Attitudes Toward Physical Disability	35
	Attitudes Toward Education	Page
	Interpersonal Values	52
PREFACE	Personal	ii
	Preferences for Personal Relationships	50
ACKNOWLEDGMENTS	Change Orientation	iii
	Change Orientation	52
LIST OF TABLES	Demographic Variables	vii
	Demographic Variables	52
LIST OF APPENDICES	Descriptive Index	xii
	Descriptive Index	52
Chapter	Scales and Intensity Analysis	63
	Scales and Intensity Analysis	57
I. INTRODUCTION	Mean Differences Analysis	66
	Mean Differences Analysis	66
	Nature of the Problem	1
	Statement of the Problem	9
	Definition of Terms	11
II. REVIEW OF RELATED RESEARCH		73
	Attitudinal Studies	18
	Attitudes Held by Peers	19
IV. ANALYSIS	Attitudes Held by Adults	22
	Attitudes of Parents	24
	Attitudes Held by Teachers	28
	General Attitudinal Studies	32
	Theoretical Framework-Attitudes Toward Disability	37
	Theoretical Framework-Attitudes Toward Education	41
III. METHODOLOGY AND PROCEDURES		43
	Research Population	48
	General Considerations	48
	Teachers of the Educable Retarded	49
	Teachers of the Trainable Retarded	50
	Visiting Teachers	50
	Diagnosticians	51
	Teachers of the Visually Handicapped	52
	Teachers of the Auditorial Handicapped	53
	Speech Correctionists	54
	Selection of Variables	54

Chapter	Page
Attitudes Toward Physical Disability	55
Attitudes Toward Education	56
Interpersonal Values	58
Personal Contact Variables	59
Preferences for Personal Relationships	60
Institutional Satisfaction	61
Change Orientation	62
Religiosity	63
Demographic Variables	63
Statistical Procedures	
Descriptive Data	65
Scale and Intensity Analysis	65
Mean Differences Analyses	67
Relational and/or Predictive Analyses	68
Major Research Hypothesis	
Hypotheses Related to Contact Frequency and Attitude Scores	71
Hypotheses Related to Attitude-Value Interactions	72
Hypotheses Related to Characteristics of Those Working Directly with Disabled Persons	74
IV. ANALYSIS OF THE DATA	
Section 1: Descriptive Data	77
Differences in Mean Education, Income, and Age Scores by Special Education Groups and Sex	80
Summary of Descriptive Data in Tables 2-3	84
Section 2: Hypotheses Testing, Mean Differences, and Correlational Analysis	85
H-1a	85
H-1b	86
H-2a	90
H-2b	91
H-3a	92
H-3b	93
H-4a	95
H-4b	95
H-5a	97
H-5b	97

Chapter	Page
H-5C	99
H-6a	100
H-6b	100
Summary of Zero-Order Correlations Between Attitudes Toward the Handicapped and Values by Sex and Special Education Group	102
Summary of Zero-Order Correlations Between Attitudes Toward Education and Values by Sex and Special Education Group	102
H-7	107
H-8	107
H-9	112
H-10	112
H-11	117
Differences in Mean Scores on the Value Sub-Scales by Special Education Group and Sex	120
V. DISCUSSION, SUMMARY AND RECOMMENDATIONS	
Part I: Discussion of Research Hypotheses	126
Part II: Summary of the Theoretical and Methodological Issues	157
Summary of Theory	157
Summary of Hypotheses Construction	159
Summary of Research Instruments	160
Summary of the Sample	162
Summary of Statistical Procedures	163
Part III: Recommendations and Implications	164
Recommendations Relating to the Instruments	164
Recommendations Relating to Sample Selection	165
Recommendations Relating to Analysis Procedures	167
Recommendations for Future Research	167
REFERENCES	170
ADDENDUM TO REFERENCES	214
APPENDICES	215

LIST OF TABLES

Table		Page
1.	Distribution of Respondents According to Sex and Area of Exceptionality	79
2.	Comparison of Mean Differences, Standard Deviations, and <u>F</u> Statistics in Respect to Three Demographic Variables for Special Education Personnel	81
3.	Duncan's New Multiple Range Test Applied to Means of Education Scores for Special Education Personnel	83
4.	Interpretation of Education Scores in Terms of Actual Educational Attainment	84
5.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Frequency of Contact with Disabled Persons with Intensity Scores on the ATDP Scale	86
6.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Frequency of Contact with Education with Intensity Scores on the Progressive-Attitude-Toward-Education Scale	87
7.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Frequency of Contact with Education with Intensity Scores on the Traditional-Attitude-Toward-Education Scale	88
8.	Zero-order Correlations Between Amount of Contact with Disabled Persons and Intensity Scores on the Attitude-Toward-Disabled-Persons Scales	89
16.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Frequency of Recognition Value and Scores on the Traditional-Attitude-Toward-Education Scale	

Table		Page
9.	Multiple Correlations for Combined Contact Variables with Attitudes Toward Disabled Persons and Toward Education (Progressive and Traditional)	90
10.	Partial Correlations Between Attitude-Toward-Handicapped-Persons and Attitudes Toward Education (Both Progressive and Traditional) as related to contact Variables	92
11.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Scores on Leadership Value and Attitudes-Toward-Disabled-Persons Scores	93
12.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Scores on Leadership Value and Progressive-Attitude-Toward-Education Scores.	94
13.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Scores on Leadership Value and Traditional-Attitude-Toward-Education Scores.	94
14.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Scores on Recognition Value and Score on the Attitude-Toward-Disabled-Person Scale	95
15.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Scores on Recognition Value and Scores on the Progressive-Attitude-Toward-Education Scale.	96
16.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Scores on Recognition Value and Scores on the Traditional-Attitude-Toward-Education Scale.	96

Table		Page
17.	Means, Standard Deviation, and <u>F</u> Statistic Comparing High and Low Scores on Benevolence Value and Scores on the Attitude-Toward-Disabled-Persons Scale	97
18.	Means, Standard Deviations and <u>F</u> Statistic Comparing High and Low Scores on Benevolence Value and Scores on the Progressive-Attitude-Toward-Education Scale	98
19.	Means, Standard Deviations, and <u>F</u> Statistic Comparing High and Low Scores on Benevolence Value and Scores on the Traditional-Attitude-Toward-Education Scale	98
20.	Means, Standard Deviations, and <u>F</u> Statistic for Benevolence Value Scores, Attitude-Toward-Disabled-Persons Scores, and Progressive-Attitude-Toward Education Scores for Males and Females	99
21.	Multiple Correlations of Change Orientation Variables with Attitude-Toward-Disabled-Persons and Toward Education (Progressive and Traditional)	100
22.	Partial Correlations Between Attitudes-Toward-Disabled-Persons and Attitudes Toward Education (Both Progressive and Traditional) as related to Change Orientation Variables.	101
23.	Zero-order Correlations Between Attitude-Toward-Disabled-Persons Scale (Content) and the Gordon Value Scale	103
24.	Means, Standard Deviations and <u>F</u> Statistic for Birth Control Responses for Special Education Groups	104

Table		Page
24.	Zero-order Correlations Between Attitudes-Toward-Education (Content) and the Gordon Value Scale	104
25.	Means, Standard Deviations and <u>F</u> Statistic Comparing Scores on the Attitude-Toward-Disabled-Persons Scale for all Special Education Groups.	108
26.	Means, Standard Deviations and <u>F</u> Statistics for Benevolence Value Scores for all Special Education Groups	109
27.	Means, Standard Deviations and <u>F</u> Statistics for Recognition Value Scores for all Special Education Groups	110
28.	Means, Standard Deviations and <u>F</u> Statistics for Leadership Value Scores for all Special Education Groups	111
29.	Means, Standard Deviations and <u>F</u> Statistics for Progressive-Attitudes-Toward-Education Scores for all Special Education Groups	113
30.	Means, Standard Deviations and <u>F</u> Statistics for Traditional-Attitudes-Toward-Education Scores for all Special Education Groups	114
31.	Means, Standard Deviations and <u>F</u> Statistics for Health Practice Responses for all Special Education Groups	115
32.	Means, Standard Deviations and <u>F</u> Statistics for Child Rearing Practice Responses for all Special Education Groups.	116
33.	Means, Standard Deviations and <u>F</u> Statistics for Birth Control Responses for all Special Education Groups	118

Table	LIST OF APPENDICES	Page
34.	Means, Standard Deviations and <u>F</u> Statistics Related to Frequency of Contact with the Mentally Retarded for all Special Education Groups	119
35.	Means, Standard Deviations, and <u>F</u> Statistic Related to Frequency of Contact with the Emotionally Disturbed for all Special Education Groups	121
36.	Means, Standard Deviations, and <u>F</u> Statistics for Support Value for all Special Education Groups	122
37.	Means, Standard Deviations, and <u>F</u> Statistics for Conformity Value for all Special Education Groups	123
38.	Means, Standard Deviations, and <u>F</u> Statistics for Independence Value for all Special Education Groups	124
	Administrative Procedures	125
	Code Book	126
	Data Transcription Sheet	127
	FOC 1 and 2 Year Transcription Sheet	128
	Out Code	129

LIST OF APPENDICES

Appendix	Page
A. Instrumentation	216
Definitions of Disabling Conditions.	216
Attitudes Toward Education	218
Survey of Interpersonal Values . .	227
Personal Questionnaire	229
Attitudes Toward Handicapped Persons	248
Personal Questionnaire: HP	256
B. Variables, Administration Procedures, Code Book and Code Forms	263
Basic Variables of the Study	264
Administrative Procedures	270
Code Book	275
Data Transcription Sheet	312
FCC I and II Variable-Computer Print-Out Code	314

CHAPTER I

INTRODUCTION

An increased emphasis in the need for special education and rehabilitation personnel over the past fifteen years is clearly in evidence (Garrison and Force, 1965, p. 6). Local school districts as well as county and intermediate educational units are levying additional millage to permit increased service to handicapped youth (Michigan Association County Special Education Administrators, 1965). Medical technology is enabling children to survive who in the past would have died in infancy (Cruickshank and Johnson, 1958, p. 18). It is essential that more special educators be trained to staff the increasing number of programs and services.

Nature of the Problem

To date the emphasis seems to have been on encouraging students to consider and enter the area of special education and rehabilitation with little regard for the selection process. A stated desire and the ability to meet the academic requirements seem to be the greatest selective factors. Training programs have provided opportunities for observation, practice teaching, and internships which have enabled evaluation and elimination of individuals who

appear unsuited for work with the handicapped but these judgments have of necessity been highly subjective and open to question. *little interest has been demonstrated in the*

att The National Council for Exceptional Children has adopted and published a comprehensive study of recommended training standards for special education personnel. *show* Requirements for teachers in each disability area are presented as are those for administrators and supervisors. Analysis of the recommendations indicate that major emphasis in the selection and training of special education personnel is on specific course requirements, academic adequacy, and critical observations of the student's performance while meeting the internship and practice teaching requirements (The National Council for Exceptional Children 1966).

att It would appear that in a society where the attitudes of individuals play an important part in the success or failure of our handicapped citizens, some evaluation of the attitudes of special educators toward the handicapped may be of value. *att* A review of the literature reveals many studies emphasizing the attitudes of society toward one handicapped group or another, the attitudes of general educators toward the handicapped, and those directed toward the investigation

of parents' attitudes toward children with specific handicapping conditions.¹

To date little interest has been demonstrated in the attitudes of special educators with varying professional training toward the handicapped. In light of the increased demand for teachers of the handicapped and the continued reliance of our universities on subjective evaluations in terms of teacher selection and training, such investigation would seem to be of value.

The identification and modification of attitudes as they relate to the handicapped should be of increasing concern to educators. Emphasis on their identification is sought not only in our country but throughout the world. Berg (1965), has noted that while "...we know something of attitudes and how to measure them...we must discover how to change them efficiently (p. 203). A major concern of the Second International Seminar on Special Education held in Nyborg, Denmark in July, 1963 was for broader communication about attitudes and programs among workers in special education and rehabilitation throughout Europe and Latin America. In addition, the conference emphasized a need

¹These studies are reviewed in Chapter II

for the acquisition of normative data about the attitudes of various interest groups toward special education and rehabilitation.

Educators in the United States have long been aware of the importance of the attitudes held by teachers of the handicapped children they seek to serve. The Division on Child Development of the Commission on Teacher Education (1945), has presented a list of the major deterrents to learning and adjustment which occur between teachers and their pupils. Among its observations are the following:

(a) children are often required to learn things and are expected to behave in ways inappropriate to their level of development, (b) full acceptance of and respect for each child as a person is not always maintained by the teachers, and relationships among children that imply acceptance of each other are not always fostered, (c) reward and punishment are usually meted out to children in terms of the significance of school policies or teachers' purposes, and the behavior of children is often controlled by means of humiliation.

Cain (1949), responding to this report states, "Such a report implies, if these indictments be true in terms of children in general, that the problems are increased for the

handicapped child. Because of his disability he will often lack normal outlets for his energies and acquire greater dependence on others in terms of making decisions" (p. 276).

It appears that teachers of the handicapped must not only be aware of the ego status of the children they serve but must have or develop attitudes that will allow the handicapped to develop to his maximum potential. If this is true, it appears that in teacher selection some evaluation of the existing attitudes of the prospective teacher should be attempted. It does not seem sufficient to imply that any individual who is certified and approved as a special educator possesses the attitudes required to best meet the needs of our handicapped children and youth. Basic to the development of a better method for the measurement of attitudes is a determination of the attitudes currently held by special education personnel serving as teachers and consultants to the handicapped.

Studies designed to determine the attitudes of special educators toward the handicapped are limited. As has been indicated earlier, the major concern of the research group of the Second International Seminar on Special Education at Nyborg, Denmark, in July, 1963 was for the acquisition of normative data relative to the attitudes of various interest

groups toward special education and rehabilitation. For these reasons the primary focus of this study will be the utilization of an established research design which will not only allow an analysis of similarities and differences in attitudes held by special educators toward the handicapped but will also provide insights into the attitudes to these specialists toward the educational process. The design has the added advantage of allowing the data to be utilized in a series of studies currently being conducted in the College of Education, Michigan State University. These studies are directed at the development of a rationale and technique for cross-national comparisons that will enable concept equivalence.¹ Friesen (1966), who has utilized the design states that "...an important guideline for conducting this kind of research should involve a comprehensive cross-national research study aimed at uncovering similarities and differences in attitudes toward physical disability as well as attitudes toward the educational process" (p. 6). While it is true that his primary concern was the development of a methodology which would take into account differing cultures, social systems, and languages, it would appear that the techniques

¹A series of studies is being developed by Dr. John E. Jordan, College of Education, Michigan State University. Data is being collected in many countries including the United States.

he utilized are of value for comparable research in the United States.

One is impressed by the fact that the handicapped in our society can be viewed as constituting a significant minority group. Tenny (1953), has provided us with a sound argument to this end. It can be argued that the handicapped represent a different culture, and a different social system much in the same manner as do other ethnic groups in the United States. Certainly the problems of our culturally deprived as well as those of our blind and deaf citizens must be more clearly understood if we are to provide them with the counseling and training they require to make a satisfactory adjustment in a culture in which they are a minority group.

Our national attitudes toward minority groups seem to be more negative than positive. This is perhaps due to the fact that we have difficulty in accepting those who differ significantly from our "norms". Tenny (1953), indicates that this is particularly true with regard to the attitudes of the "normal" society toward the handicapped.

It seems reasonable to assume that since most special educators have no discernible handicaps, that their attitudes toward minority groups may be somewhat similar to those held

by most members of the society. Certainly there exists no evidence to indicate that through training or cultural affiliation they possess attitudes of greater acceptance of the handicapped than do other members of the majority group. In fact, to this writers knowledge, no attempt has been made to determine and compare the attitudes of special educators and "regular" educators either toward education in general or toward the handicapped.

Felty (1965), and Friesen (1966), have demonstrated an interest in the comparability of attitudes held by differing cultures toward education and the handicapped. They have developed a methodology and techniques that allow such comparison. Such a comparison would seem to represent a first step in the ultimate development of a technique for determining the attitudes held by individuals who elect to prepare themselves to aid the handicapped and other minority groups in our society.

By utilizing the techniques and methodology advocated by Felty (1965), and Friesen (1966), the data obtained in this study can be utilized in a larger cross-cultural research project being conducted under the direction of

Dr. John E. Jordan.¹ Such a technique not only increases the amount of data available for comparative purposes but will ultimately allow comparison of attitudes among the various special education groups and among differing cultural groups. The fact that these data can be utilized by special education and rehabilitation workers in different countries represents a secondary objective of this study and lends support to the utilization of the techniques and methods to be described.

Statement of the Problem

The purpose of this study is to investigate the attitudes of special educators toward education and toward physical disability utilizing the technical, methodological, and theoretical concepts developed by Friesen (1966), and Felty (1965). A set of instruments will be employed which will enable comparison of these attitudes from one special education group to another while allowing utilization of the data obtained for future comparison among differing cultural groups.

¹See footnote on page 6

The attitudes obtained will also be related to selected demographic variables which theoretically should serve either as predictors or correlates of attitudes.

It has been suggested that values are important determinants of attitudes and that individuals who perceive others as having intrinsic worth will have more favorable attitudes toward the handicapped than will individuals who value others according to more absolute comparative standards (Wright, 1960, pp. 128-133). Similar measures can be obtained relative to an individual's attitude toward education provided a favorable-unfavorable continuum is assumed. A part of the problem will be to determine if in fact such a relationship exists with regard to attitudes of special educators toward education.

Friesen (1966, p. 9) has suggested that the amount of personal contact as well as the alternatives to personal contact with the handicapped serve as determinants of attitudes. It is to be assumed that all types of special educators will indicate appreciable contact with the handicapped. However, another problem will be to determine the relationship of alternatives to contact as determinants of attitude scores.

The first component will be that of item content for belief.

Modern computer techniques make it possible to analyze diverse personal and demographic data. Such data acquired from the sub-sets of special educators should be informative and of value in subsequent research.

Definition of Terms

The following terms need to be operationally defined as used in this study:

Attitude.--The sense in which this general term will be used follows the definition by Guttman (1950, p. 51).

An attitude is a "delimited totality of behavior with respect to something. For example, the attitude of a person toward Negroes could be said to be the totality of acts that a person has performed with respect to Negroes." Use of this definition is consistent with the attempt to use some of Guttman's concepts in respect to scale and intensity analysis.

Attitude Component.--Components of attitudes have been discussed by various investigators (e.g., Katz, 1960, p. 168; Rosenberg, 1960, p. 320, ff; Guttman, 1950, Ch. 9). The two components typically considered are those of belief and intensity, although Guttman defines additional components according to certain mathematical properties. In this study, the first component will be that of item content (or belief),

the second that of item intensity (cf. Guttman, 1950, Ch. 9; Suchman, 1950, Ch. 7).

Attitude Content.--The attitude content component refers to the actual item statements within an attitude scale.

Attitude Intensity.--The attitude intensity component refers to the affective statements that a respondent makes regarding each content item; operationally, it consists of a separate statement for each attitude item on which the respondent may indicate how strongly he feels about the statement.

Attitude Scale.--As used in this study, a scale is a set of items which fall into a particular relationship in respect to the ordering of respondents. A set of items can be said to form a scale if each person's responses to each item can be reproduced from the knowledge of his total score on the test within reasonable limits of error (e.g., Guttman, 1950, Ch. 3; Stouffer, 1950, Ch. 1).

Demographic Variables.--Specifically, this refers in the present study to certain statistical data frequently used in sociological studies. These variables are age, sex, education, income, rental, occupation, number of siblings, occupational and residential mobility, and whether the respondent spent his youth in a rural or urban setting.

Educational Progressivism.--A ten-item scale of progressive attitudes toward education developed by Kerlinger (1958).

Educational Traditionalism.--A ten-item scale of traditional attitudes toward education developed by Kerlinger (1958). These measures do not constitute scales as defined for the present study, but rather are constituted of items which appeared in factor analytic studies, and which were characterized by the terms which identify the scales.

Handicap.--This term signifies the social disadvantages placed upon a physically impaired person by virtue of the impairment. A handicap is a consequence of culturally held values and attitudes which serve to define the physically impaired person socially.

Impairment.--This term signifies a defect in tissue or in body structure. As such it has no particular functional connotations.

Institutional Satisfaction.--This term is used to describe a set of variables on which the respondents were asked to indicate how well they felt that various kinds of local institutions were doing their job in the community.

These institutions were schools, business, labor, government, health services, and churches.

Interest Group.--Any group that, on the basis of one or more shared attitudes, makes certain claims upon other groups in the society to engage in particular forms of behavior. Associational interest groups work as collectivities to exert influence (e.g., Almond & Coleman, 1960).

Occupational Personalism.--This term is operationally defined by questionnaire items designed to ascertain: first, about what percent of the time people work with others with whom they feel personally involved; second, how important it is to work with people with whom one is personally involved. A personalistic orientation to life is sometimes considered as a distinguishing characteristic of traditional social patterns (e.g., Loomis, 1960).

Physical Disability.--This is a functional term denoting some loss of the tool function of the body. The term "handicapped" was used in the questionnaires since this appeared to be a more meaningful terminology.

Rehabilitation.--A term signifying "restoration of the disabled to the fullest physical, mental, social, and vocational usefulness possible" (Jordan, 1964b).

Relational Diffusion.--This term is operationally defined by a questionnaire item designed to determine the extent to which personal relations on the job diffuse into a person's non-job social milieu. A personalistic diffusion between the social milieu and occupational milieu is sometimes considered as a distinguishing characteristic of traditional social patterns (e.g., Loomis, 1960).

Religiosity.--A term used to denote orientation to religion. Operationally, it is defined by three items: first, religious preference; second, the importance of religion; third, the extent to which the rules and regulations of the religion are followed.

Special Education.--Following Kirk (1962, p. 29) this term characterized educational practices "that are unique, uncommon, of unusual quality, and in particular are in addition to the organization and instructional procedures used with the majority of children." Jordan (1964b, p. 1) has commented: "the basic aim of special education is to prevent a disability from becoming a handicap."

Value.--Two value terms are used, but defined operationally by the same set of measures. Asset values predispose a person to evaluate others according to their own unique potentials and characteristics. Comparative values

predispose a person to evaluate others according to external criteria of success and achievement (Wright, 1960, pp. 128-133). Operationally these values are defined by three scales on the Survey of Interpersonal Values (Gordon, 1960). Asset values will be measured by the Benevolence Scale, Comparative Values by the Recognition and Leadership Scales. These three scales were judged by the investigator to have adequate face validity for the measurement of the values proposed by Wright. Additional value orientations measured by the Gordon Survey of Interpersonal Values are labeled Support, Conformity, and Independence.

Teachers of the Educable Retarded.--Individuals possessing a valid Michigan Teacher's Certificate and state approval as teachers of the retarded who are currently teaching in state approved programs for the educable child.

Teachers of the Trainable Retarded.--Individuals possessing a valid Michigan Teacher's Certificate and state approval as teachers of the retarded who are currently teaching in state approved programs for the trainable child.

Teachers of the Acoustically Handicapped.--Individuals possessing a valid Michigan Teacher's Certificate and state approval as teachers of the deaf and hard of hearing who

are currently teaching in state approved programs for the acoustically handicapped child.

Teachers of the Visually Handicapped.--Individuals possessing a valid Michigan Teacher's Certificate and state approval as teachers of the blind and partially sighted who are currently teaching in state approved programs for the visually handicapped child.

Speech Correctionists.--Individuals possessing a valid Michigan Teacher's Certificate and state approval as speech correctionists who are currently teaching in state approved programs for children with speech handicaps.

Visiting Teacher.--Individuals possessing a valid Michigan Teacher's Certificate and state approval as visiting teachers who are currently serving in state approved programs for children with marginal emotional problems.

Diagnosticians.--Individuals possessing a valid Michigan Teacher's Certificate or its equivalent and state approval as a diagnostician who are currently serving in state approved programs for the mentally retarded.

CHAPTER II

REVIEW OF RELATED RESEARCH

It is significant that while many studies have been directed at attitudes as they relate to the handicapped few have been concerned with attitudes held by special educators toward handicapped members of our society. In fact, in what is considered to be a comprehensive review of contemporary literature, no researcher was found who sought to determine the attitudes held by the special educator toward handicapped children. As has been indicated such information is vital to the improvement of methods of teacher selection and training.

Attitudinal Studies

Included in this review are many studies directed specifically at attitudes toward the mentally retarded. Presentation of these data also provides information of value in any attempt to measure attitudes toward the physically handicapped and toward education generally.

To facilitate the review the studies are grouped as follows: (a) attitudes held by peers, (b) attitudes held by normal adults, (c) attitudes held by parents of the handicapped, (d) attitudes held by teachers, (e) attitudinal studies of a general nature.

Attitudes Held by Peers

Billings (1963) investigated the attitudes of normal children toward crippled peers. He reported that all attitudes of normal peers were unfavorable with those of the older children being more negative than the younger. It is interesting to note that those normal peers judged by their teachers to be high in personal adjustment were most unfavorable in their attitudes toward the crippled. These conclusions tend to support the position of Tenny (1953), Barker (1948), and Force (1956), that individuals who differ physically from the majority of the people around them have a minority status and as such are subject to the dynamics of any minority group.

Centers and Centers (1963) analyzed peer attitudes toward the amputee child and reported a significantly greater number of rejecting attitudes exhibited toward the handicapped.

Fishman (1958) reported on the implications of upper extremity amputations and indicated that as the society perceives that a positive correction of a deformity is possible "...there is a reduction in anxiety and prejudice concerning the physically handicapped and a corresponding increase in their acceptance by society" (p. 93).

Bateman (1962) investigated peer attitudes toward the visually handicapped. She indicated that normal peers with blind friends perceived the blind as more capable than did peers who had not known blind children. She further indicated that urban children were more positive in their attitudes toward the blind than were those from other community areas. Unlike the conclusions of Billings (1963), Bateman reported that favorable attitudes tend to increase with grade level.

West (1962) indicated that exposure to children with visual problems tended to result in positive change in the attitudes toward the visually handicapped held by normal peers. A similar observation was made by Justman and Moskowitz (1957) relative to attitude change toward integrated deaf.

Force (1956) attempted to determine the social position of physically handicapped children among normal peers. He indicated that handicapped children are not as well accepted as normal children at the elementary level. Another conclusion reached by Force is of interest to the current study. He indicated that the physically handicapped have varying social values with cerebral palsy ranking lowest on the value scale.

Miller (1956) compared the social status of normal, retarded, and superior children. He reported that superior children are best liked and retarded least. His results indicated only a moderate acceptance of the retarded child.

In reporting the attitudes of adolescents toward retarded peers Jaffe (1966) made the following statement:

...that those having contact with the retarded attributed a greater number of favorable traits to the retarded stimulus person but responded similarly on the other measures suggesting that contact may be related to a more cognitive or descriptive dimension of attitude (p. 911).

Most researchers who have investigated the attitudes of normal members of society toward their retarded peers reported a general lack of acceptance of this minority group. Baldwin (1958), Jordan (1959), Johnson (1961), and Thurstone (1959, 1960) have reported similar findings in this regard.

Attitudes Held by Adults

Force (1956), Warren and Turner (1966), Warren, Turner, and Brady (1964), have reported rank order acceptance of disability labels by various subjects. Generally speaking the superior or apparently nonhandicapped individual enjoys the greatest social acceptability. The severely retarded or most visably handicapped is least socially acceptable. Similar findings were reported by Jones, Gottfried, and Owens (1966).

Goodman, Dornbush, Richardson, and Hastorf (1963) reported similar findings in a study in which the subjects selected pictures in the order of no handicap to most visible handicap.

Semmel and Dickinson (1966) in a study of the connotative reactions of college students to disability labels noted that special education majors indicated greater acceptance of the handicapped when compared with elementary education majors. They also reported a significant and almost linear trend between amount of reported contact with the handicapped and mean scores on the Connotative Reaction Inventory.

Yuker (1965) discussed attitudes of normal persons toward the handicapped. He emphasized that as association with the handicapped increased the normal person needed help in terms of attitude modification. He indicated that the handicapped person must be evaluated as an individual rather than as an object of pity.

...some disabled persons are not suitable for fraternity membership, just as some nondisabled persons are not suitable for membership (Yuker, p. 15).

Bradt (1957) in a comparative study of the attitudes of education majors and undergraduates in other fields of study toward the handicapped reached the following conclusions:

1. Education students were no more willing to teach the handicapped than were non-education majors.
2. Education majors showed less acceptance of the crippled child than non-education students.
3. Non-education students were openly hostile toward mentally handicapped and socio-emotionally maladjusted children.

Whiteman and Lukoff (1962) speculating on what conditions determine an individual's attitude toward the blind stated the following:

An individual's demographic, social, and personality characteristics make a difference in the intensity with which attitudes toward blindness are held (p. 154).

Rudloff (1964) supports the contention that among a hearing society the deaf are perceived as having less ability, being less friendly, and having negative or neutral personalities when compared with the normal society.

Kinbrell and Luckey (1964) attempted to indicate the effect of minimal contact on attitude change in relation to selected factors involved in the operation of a state training school for the mentally retarded. Of ten content items evaluated, a ninety minute tour of the school resulted in significant changes in pre-post tour mean scores on five of the items.

Utilizing a similar technique Warren, Turner and Brady (1964) reported that attitudes toward the brain-injured, and

the mildly and severely retarded did not change in a positive direction. In some cases attitudes became more negative. Implications of these findings were interpreted in terms of students' perceptions, the reinforcement of existing negative attitudes and the short duration of the visit.

Analyzing attitudes toward the schizophrenic, Kantor (1966) concluded that significant social prejudice exists against the schizophrenic person and results in a negative social action toward him.

Wright and Klein (1966) compared attitudes of the general public with those of hospital personnel toward the mentally ill. They indicated that formal educational training and experience with mental illness can have a powerful and favorable effect on attitudes.

Attitudes of Parents

Ryckman and Henderson (1965) approached the child-parent relationship from the point of view of the impact of the handicapped child on the parents. Six areas of meaning were presented which were closely related to the self-concept of the parent. They suggested that these areas of meaning might be helpful in the organization of an approach to the problems created by the presence of a handicapped child in the family.

Jordan (1963) also studied the effect of the handicapped child on the family. He noted that the anxiety, usually present at all births, continued to increase with the birth of a handicapped child. He concluded that the home is usually more tension prone due to the presence of a handicapped child.

Soldwedel, Bette, Terrill, and Isabelle (1957) investigated the attitudes of normal children and their parents toward handicapped peers. They noted that parents of handicapped children see their children as seeing themselves identified with a handicapped minority to the exclusion of a normal society. They also pointed out that parents of the handicapped tend to select handicapped children over normal peers as playmates, classmates, and guests at a party for their handicapped children.

Denkoff and Holden (1954) indicated that parents who were most accepting of their child's disability created an environment which resulted in greater academic achievement by their children.

Cook (1963) characterized the attitudes of mothers of handicapped children in the following manner:

Diability Attitude

1. blind and severely handicapped over protective

2. deaf and organically handicapped over indulgent
3. mongoloid and cerebral palsy punitive
4. mildly handicapped rejecting

No attempt was made to determine the intensity of the attitudes.

Hofnagel (1965) commenting on the self-mutilating characteristics of selected neurological impaired children indicated that changes in attitudes toward the handicapped were essential. Such changes in a positive direction would help parents to have fewer guilt feelings and less anger.

Jordan (1963) examined the impact of a cerebral palsy child on the family. He reported increased anxiety and an increased number of role changes. The parents are usually overprotective and the child becomes more dependent.

Browne, Mally, and Kane (1960) stressed the importance of positive, objective, accepting attitudes in the successful management of hemophilic children. A similar conclusion was reached by Gurney (1958) after analyzing the attitudes of parents of children with congenital amputation.

Cohen (1966) analyzed the effect of blindness on emotional development. He called for acceptance and support from the family. He stated that the emotional environment

of the home determines whether a child will benefit from special services.

Reeves (1962) indicated that a high correlation exists between use of hearing aids by auditorily handicapped children and ratings of home conditions. These were rated as good, fair, or poor according to the intensity of positive and dynamic attitudes displayed by parents. Varwig (1965) reported similar findings.

Marge (1966) studied the attitudes of parents toward speech handicapped children. She indicated that parents of both normal speaking and speech defective children have similar attitudes toward the speech handicapped. It was reported that parents of the speech handicapped place more emphasis on the importance of good speech. Parents of both groups tend to feel that speech disorders are less handicapping than other conditions and consequently are more acceptable.

Cummings, Bayley, and Rie (1966) in a comprehensive analysis of the effects of a child's deficiency on the mother reported that a mother of any exceptional child has more psychological stress than the mother of normal children. They indicated that mothers of retarded children have more stress than those of the chronically ill.

For the mothers in the mentally retarded group a pattern may be seen to emerge...With the exception of the Depressive Feeling Scale, the remaining scales on which they deviate all relate to feelings about the interactions with the deficient child: Preoccupation with Child, Difficulty in Handling Anger at Child, Sense of Maternal Competence, Enjoyment of the Child, Possessiveness, and Ignoring Tendencies in Child-rearing Practices (Cummings, et. al., p. 604).

Appell, Williams, and Fishell (1964), Harris (1959) and Bitter (1963) demonstrated that attitudes of parents of mentally handicapped children could be modified through a series of parent group discussions. They observed that change was toward more positive and accepting attitudes.

Stubblefield (1965) and Rappaport (1965) indicated that religion plays an ever increasing role in parental acceptance of retardation.

Farber (1960) studied maintenance of integration in families with severely retarded children. He stated that retarded boys place the greatest stress upon the family and that institutionalization tended to alleviate many of the pressures. He concluded that religion and social status were significant factors in determining the ability of the family to manage the severely retarded child at home.

Attitudes Held by Teachers

Fenderson (1964) observed that while teachers of the handicapped must be skilled in applying learning techniques

they must also display genuine interest in the child. He emphasized that our attitudes toward the handicapped can be evaluated through utilization of the principle that handicapped persons have a right to full personal dignity, they have normal needs and feelings and they can and do grow up.

Haring, Stern, and Cruickshank (1958) directed what is perhaps the most comprehensive analysis of the attitudes of educators toward exceptional children. They attempted to measure the amount of existing information concerning disability held by the respondents as well as their attitudes to various disabilities. In addition an attempt was made to change information levels and modify attitudes through a series of workshops. They reported that the information levels of respondents changed significantly and that attitudes toward seven types of disability were significantly altered. They indicated that the teachers were able to modify their attitudes toward some kinds of handicapping conditions more easily than toward others. Of interest in terms of the present study is their observation that:

The significant differences between the areas of deviation were a function of the teachers initial acceptance in the area, and the number of experiences with exceptional children in the area (Haring, et. al., p. 117).

Murphy (1960) investigated the attitudes of various groups of educators toward the handicapped. One of his conclusions has a relationship to the current study. He suggested that a positive trend-correlation exists between how much a teacher thinks he knows about a specific area of exceptionality and his attitudes or acceptance of the disability.

Murphy (1962) investigating attitudes of educators toward the blind found that they least preferred to teach the blind. He indicated that these negative attitudes were related to limited information relative to visual loss. He asserted that increasing information should result in positive attitude change.

Toms (1964) stressed the importance of good mental health for teachers of the visually handicapped. She indicated that since a child reflects the attitudes of those around him, those attitudes should be healthy and accepting.

O'Connor and O'Connor (1961) reached a similar conclusion relating to the effect of teachers attitudes upon the integrated deaf child. They attributed much of the academic failure of the integrated deaf child to the negative expressions of regular teachers. Formaad (1965) indicated

that negative attitudes on the part of teachers of the deaf could also result in student failure.

Emerick (1960) compared the actual countings of stutterings made by two groups of teachers with the teachers attitudes toward stuttering.

Although speech pathologists count more stutterings in a given sample of speech than do lay judges, speech pathologists have better, that is, more tolerant, attitudes toward stuttering than do lay individuals (Emerick, p. 181).

Semmel (1959) made a comparative analysis of the attitudes of special education teachers and regular teachers with regard to the mentally retarded. It was noted that no significant difference existed in the attitudes of the two groups. However, he indicated that the special education teachers possessed a significantly greater knowledge of the general area of mental deficiency.

Knoblock and Garcia (1965) reported success in the development of more positive attitudes toward the emotionally disturbed among teachers and administrators. They attributed the change to the dissemination of information relative to programs and needs of the emotionally disturbed.

Wiener and O'Shea (1963) reported on the attitudes of university faculty, administrators, supervisors, and students toward the gifted. They indicated several observations that

appear to relate to the attitudes of similar groups toward the physically handicapped. Administrators who had classes for the superior child had more positive attitudes toward the gifted than those who did not. Male administrators were more favorable toward the gifted than female administrators. On the other hand female students were more favorable than males. Several demographic variables such as sex, age, education, and income had little significance among some groups and were highly significant among others.

General Attitudinal Studies

Hanks and Hanks (1948) reported on attitudes of non-occidental societies toward the handicapped.

Protection of the physically handicapped and social participation for them is increased in societies where: (a) the level of productivity is higher in proportion to the population and its distribution are more nearly equal, (b) competitive factors in individual or group achievement are minimized, (c) the criteria of achievement are less formally absolute as in the hierarchical social structures and more weighted with concern for individual capacity, as in democratic social structures (p. 20).

Tenny (1953) has indicated the similarities between the handicapped and other minority groups in our society. Minority groups and the handicapped, according to Tenny, share the following similarities:

1. Social distance exists and rejection takes place.

The individual usually withdraws or becomes aggressive.

2. Minority groups and the handicapped usually become stereotyped in the eyes of the public through movies, comic strips, and jokes. This, in part, explains the negative attitude of the general public toward these two groups.
3. As society rejects these stereotyped groups they become segregated.
4. Job opportunities for these groups are limited resulting in low economic and social status.

Berreman (1954) in a critique of Tenny's position pointed out that while similarities do exist between minority groups and the handicapped there are also important differences. Among these are:

1. The child from a minority group identifies with the group and gains strength from it. Such is not the case with the handicapped.
2. The handicapped are usually treated with kindness and understanding as children and then experience rejection in employment as adults by the same society which indulged them as children.

Yuker (1965) stated that studies at the Human Resources Institute showed that people who are prejudiced against the disabled also tend to be prejudiced against ethnic groups.

Yuker (1965) discussed attitudes of the handicapped toward themselves indicating that such attitudes are more important than the person's actual disability, and are not in proportion to the extent of the disability.

Thus in terms of attitudes, a person missing two legs might be better adjusted and more self-accepting than another who is missing only 3 fingers (p. 16).

Jones and Gottfried (1966) determined that special education teachers as a group have high prestige when judged by other teachers or prospective teachers. They noted that teachers of the educable retarded rated themselves lower than the regular classroom teachers rated them. The authors speculated on why more teachers did not enter the special education field. They felt that three factors were important.

A perceived lack of congruence between respondent personal characteristics and the traits needed for special education teaching, the relationship of rated occupational prestige to other variables, and the competition from other areas (p. 468).

Holzber (1964) investigated changes in moral judgment and self-acceptance in college students as a function of companionship with hospitalized mental patients. He indicated that such a relationship resulted in increased acceptance of defiant behavior on the part of the participants as well as an increase in self-acceptance.

Wright and Klein (1966) in a similar study determined that hospital personnel showed a greater acceptance of the mentally ill than did non-hospital employed adults.

Whiteman and Lukoff (1962) utilizing a blindness index, studied the attitudes of 500 blind individuals. The index indicated that blind individuals who had an unfavorable evaluation of blindness had a low self-concept, displayed little critical attitude toward the sighted, and tended to have a dependent mode of adjustment.

Heltzman, Kelly, and Ferson (1958) utilized a Likert-type scale to determine attitudes toward the negro in the south. They determined that attitudes toward this minority group were significantly related to the geographic region from which the respondent came, father's occupation, major field of study in college and religious preference. In addition, they noted that there was a slight tendency for those with favorable attitudes toward the church to be less tolerant of the negro.

A study by Nunally and Babren (1959) had little direct relationship to the present study but provides some interesting speculation relative to attitude change. Utilizing false information designed to provide a description of catatonic schizophrenia which would produce greater public acceptance

of this minority group they found the information effective in movement of attitudes in a more positive direction. They hypothesized that existing false beliefs sometimes serve a useful purpose in reducing feelings of threat.

Graham (1962) reported that the basic roadblocks to the development of effective special education programs are the lack of understanding, acceptance, and readiness of the public.

Analysis of the above studies indicates that most are descriptive in nature and have utilized instruments and techniques developed specifically for the purposes of the study. Such studies while providing insight into the immediate problem do not lend themselves to the development of a theoretical framework which could be used to formulate general hypotheses about attitudes, their measurement, and their meaning in terms of the handicapped members of our society.

Kvaraceus (1958), Levine (1961), and Meyerson (1955, 1963), are among those who feel the need for research designs that will generate a body of theory in the area of special education. O'Connor and Golberg (1959) have indicated that much of the research in special education and rehabilitation has little relationship to theory and makes

few attempts to profit from other related research in the social sciences.

The present study is, in part, an attempt to overcome much of this lack of generality.

Theoretical Framework

Attitudes Toward Disability

An attempt has been made to utilize the theoretical constructs developed by Felty (1965) and Friesen (1966). Both have relied heavily on a model which is consistent with the social-psychological approach to physical disability.

The central constructs of such a model are those of self, other, reference group, role, attitude and value. Within this framework it is possible to view physical disability as a social value judgment. Developing this concept further, we may state that the impact of disability upon the handicapped and upon the society is in large measure determined by societies reaction (attitude) to the disability and hence toward its possessor. Support for such a theoretical position has been posited by Barker, et. al. (1953), Wright (1960), Meyerson (1955, 1963), and Dembo, et. al. (1956).

Levine (1961) has hypothesized a relationship between attitude and value which is primary to the present study. While he accepts the concept that disability is a social

value judgment he suggests that an added relationship exists among the concepts of social role, role perception, role value and attitude. He argues that society views the handicapped in terms of their value to society. He implies that value (worth) is related to potential for leadership, capability of contributing to the improvement of the society, potential for good citizenship, and being an acceptable head of a family. Such valuations of the handicapped, particularly those with highly visible disabilities, often result in a negative attitude toward handicapped members of our society. The studies by Centers and Centers (1963), Force (1956), Warren and Turner (1966), Semmel and Dickinson (1966), and others which have been reviewed above, tend to support Levine's contention.

Dembo, Leviton and Wright (1956) have suggested that the devaluation of the handicapped, based upon their worth to society, results from a system of comparative value orientation. They state that values can be classified based upon their derivation. The comparative value orientation relies on a set of standards against which any individual or society may be evaluated. Examples of existing standards are heredity (comparison with the past) and achievement (comparison with present norms). The antithesis of comparative

evaluation according to Wright (1960) is asset valuation. She states "...if evaluation arises from the qualities inherent in the object of judgment itself, the person is said to be invoking asset values" (p. 29).

The asset-comparative system of value classification will be utilized in the present study. A system of determining the value orientation of special educators was devised using the Gordon Survey of Interpersonal Values (Gordon, 1960). Discussion of the Gordon scales is contained in Chapter III.

While some of the hypotheses used in the current investigation were generated from the asset-comparative value orientation, others are based on studies similar to those discussed earlier in this chapter.

Homans (1950) and others have suggested that frequency of contact between individuals or groups is related to attitude toward those individuals or groups in a positive direction. He also observed that minimal contact resulted in neutral or negative attitudes.

Allport (1958) studying attitudes toward negroes indicated that individuals having contact with high status negroes held more positive attitudes toward that ethnic group than individuals having contact with low status negroes.

Since the handicapped can also be viewed as a minority group (Tenny, 1953), and are perceived as having high or low status (Semmel, 1966) Allport's findings appear relevant to the present study.

Zetterberg (1963) reviewed Malawski's observation that frequency of social contact and its relation to positive attitudes was dependent upon the cost of avoiding the interaction and available alternatives to the contact. These observations would seem of value in an analysis of attitudes toward the handicapped held by special educators.

An analysis of the above studies suggests that various aspects of contact with the disabled may be of value in developing a theoretical framework for the study of attitudes. It may be hypothesized that attitudes toward the handicapped may become more positive or favorable if:

1. frequency of contact with the handicapped is increased (Homans, 1950, p. 112).
2. the handicapped individual is perceived as "high status" or where the disability lacks visibility (Allport, 1958, p. 254).
3. the contact is volitional (Zetterberg, 1963, p. 13).
4. there are acceptable alternatives to the contact (Zetterberg, 1963, p. 13).

5. the contact is "enjoyable" (Zetterberg, 1963, p. 13).

For purposes of this study a number of hypotheses are posited relating to contact with handicapped members of the society. As is indicated above an attempt has been made to determine frequency of contact, ease of avoidance of the contact, enjoyment of the contact, and acceptable alternatives to the contact. The specific hypotheses will be found in Chapter III.

Attitudes Toward Education

In an attempt to determine the attitudes of respondents toward education (Felty, 1965) and (Friesen, 1966) utilized a scale developed by Kerlinger (1956).

The Kerlinger scale is built upon a restrictive-traditional and permissive-progressive dichotomy of attitudes toward education. Most educators never question this dichotomy in educational values and attitudes and as a result it is accepted as a reality.

Kerlinger (1958) described traditional and progressive educational concepts in the following manner. The restrictive-traditional education viewpoint is:

A generally narrow and practical (in a limited and limiting sense)...emphasis is on subject matter for its own sake, impersonal superior-inferior relationships with considerable importance attached to the hierarchical nature of such relationships,

external discipline, and conservative status quo preserving social beliefs. "Morality" is strongly emphasized and based on external "higher" authority (p. 112).

In contrast, the permissive-progressive educational viewpoint is described by Kerlinger as:

...characterized by emphasis on problem-solving and relative de-emphasis on subject matter and knowledge, education as growth, children's interests and needs as basic to education, equality and warmth in interpersonal relationships, internal discipline, liberal social beliefs which emphasize education as an instrument of social change, and a morality based on social and individual responsibility (p. 112).

Kerlinger's theory of the relationship between attitudes and educational values can be summarized as follows:

1. Individuals having the same or similar occupational or professional roles will hold similar attitudes toward a cognitive object which is significantly related to the occupational or professional role. Individuals having dissimilar roles will hold dissimilar attitudes.
2. There exists a basic dichotomy in the educational values and attitudes of people, corresponding generally to "restrictive" and "permissive", or "traditional" and "progressive" modes of looking at education.

3. Individuals will differ in degree or strength of dichotomization, the degree or strength of dichotomization being a function of occupational role, extent of knowledge of the cognitive object (education), the importance of the cognitive object to the subjects, and their experience with it.
4. The basic dichotomy will pervade all areas of education, but individuals will tend to attach different weights to different areas, specifically to the areas of (a) teaching-subject-matter-curriculum, (b) interpersonal relations, (c) normative, and (d) authority-discipline (Kerlinger, 1956, p. 290).

Smith (1963) utilizing the Kerlinger scales indicated that individuals holding progressive educational attitudes tended to be liberal in their social attitudes. Individuals holding traditional educational attitudes tended to be conservative in their social attitudes.

For purposes of the present study six hypotheses were generated from the Kerlinger and Smith data. A relationship is postulated between progressive educational attitudes and change orientation as well as asset orientation toward others. In addition, it is hypothesized that persons in the

special education field will hold progressive educational attitudes and will be more change oriented and express asset oriented values.

Measurement of Intensity

Rosenburg (1960) considered the intensity component of an attitude as an action predictor. Carlson (1956, p. 259) found initial intense attitudes much more resistant to change than moderately held attitudes. Guttman and Fea (1951) indicated that the intensity of an attitude is related to the amount of social contact that one has with the attitude object.

As has been indicated the present study utilizes a simple approximation of the intensity function by asking "How strongly do you feel about this?" The response categories following such a question are very strongly, fairly strongly, and not so strongly. The specific procedure for intensity measurement is outlined by Suchman (1950, p. 219).

Measurement of Attitudes

Attitude as used in the current study is defined as a "delimited totality of behavior with respect to something" (Guttman, 1950, p. 51). Responses on an attitude scale are one form of delimited behavior, but the attitude universe, according to Guttman, may consist of many forms of behavior

which are more or less intercorrelated and which form separate sub-universes. An adequate attitude abstraction from this universe should include sampling from each of the possible sub-universes. Such a task exceeds empirical possibility. A statement of the conceptual problem, however, points up limitations in the range of inferences one may make from a limited sampling of behavior.

We may assume that a relationship will exist between a subjects statements about a handicapped person and his overt behavior toward that individual.

Green makes three other observations relative to attitudes, their underlying characteristics, and their relationship to other variables. First, there must be a consistency of responses in respect to some social object. Second, the attitude itself is an abstraction from a set of consistent or covarying responses. "In each measurement method, covariation among responses is related to the variation of an underlying variable. The latent attitude is defined by the correlations among responses" (Green, 1954, pp. 335-336). Responses themselves are not attitudes; rather, the attitude is defined by the latent variable. The detection of this latent variable requires certain scale properties. Finally, an attitude differs from other

psychological variables (with the exception of value) because it is always in terms of a referent class of social objects.

While the following studies were not available for review (since they are still in process) they are related to the larger concurrent-replicative cross cultural research project on attitudes toward education and toward handicapped persons underway at Michigan State University. They are listed to make them known to the professional public.

The additional studies, (with their projected completion dates) examine: attitudes in Japan (Cessna, 1967); comparison of special versus regular educators (Green, 1967); relationships between attitudes, values, contact and theological orientations (Dean, 1967); attitudes of college counselors (Palmerton, 1967); ministers attitudes toward mental retardation (Hester, 1967); attitudes toward general disability versus blindness (Dickie, 1967); attitudes toward general disability versus deafness (Weir, 1968); and factors influencing attitudes toward integration of handicapped children in regular classes (Proctor, 1967).

Chapter III indicates the development of hypotheses specifically relating interpersonal values to attitudes. The Gordon Scale of Interpersonal Values (1960) is utilized for this purpose.

CHAPTER III

METHODOLOGY AND PROCEDURES

The purpose of this study was to attempt a comparative analysis of the attitudes of several types (see Chapter I for type definitions) of special educators toward the physically handicapped as well as toward education in general. A secondary objective was the employment of a set of instruments developed for the purpose of assessing cross-cultural attitudes in the broad areas of education and rehabilitation.¹ Felty (1965) first utilized the design, instruments and methodology in a study conducted in San Jose, Costa Rica. Friesen (1966) further refined the design in a study of the nature and determinants of attitudes toward education and the handicapped in Colombia, Peru and the United States.

As has been indicated, no study has been found which has attempted to determine and compare the attitudes of differing types of special education personal. For the purposes of this study the following groups of special educators were selected for comparison: (a) teachers of the educable retarded, (b) teachers of the trainable retarded,

¹See footnote on page 6.

(c) visiting teachers, (d) diagnosticians, (e) teachers of the visually handicapped, (f) teachers of the auditorily handicapped, and (g) speech correctionists.

Research Population

General Considerations

All educators included in this sample held provisional or permanent certification or its equivalent as teachers with the Michigan Department of Education. In addition, each was approved in his particular area of special education.

The questionnaires were administered during the summer of 1965 at state or county workshops for special educators held in several locations throughout Michigan. It is reasonable to assume that such a procedure resulted in a representative sample of special educators from among Michigan school districts since all educators attending the workshop participated in the study.

The variation among the N's for each of the seven groups is attributed to the differences in the numbers of such personnel employed in the school districts of Michigan. While there are many programs for the educable retarded there are relatively few for the trainable. If a school district in Michigan anticipates state financial reimbursement for a diagnostician it must have in its own district or in a

combination of districts, 5,000 children in school membership. In the case of the visiting teacher the membership requirement is 2,500. Further variations in the numbers of special educators in each of the disability areas are related to availability of teachers as well as basic differences in the state reimbursement schedules designed to provide support to local districts offering special education services.

Teachers of the Educable Retarded

The State Department of Education supports two types of services for the educable retarded child. Each is designed to provide service to children who are diagnosed as potentially socially competent.

One of the programs designated Type A, involves the organization of a special class. While children in this program are given an opportunity to participate in selected activities with non-handicapped children, the major portion of their academic training is carried out within the special room.

The other program for the educable retarded is designated Type C. This program recognizes that many mentally retarded children, who are socially adjusted, achieve well in a regular classroom if they are identified and given assistance with the regular instructional program. Such assistance is

provided under the Type C service by fully approved teachers of the retarded.

For purposes of this investigation Type A and Type C teachers were combined. The group was composed of 34 male and 98 female teachers.

Teachers of the Trainable Retarded

Programs for the trainable retarded child in Michigan are referred to as Type B or County Trainable Programs. Children served in such programs are described as potentially partially socially competent. Essentially such children are incapable of being educated properly and efficiently through ordinary classroom instruction or in special education programs designed to meet the needs of the educable retarded child. Fully approved teachers in this group must meet the same educational requirements as teachers of the educable retarded child.

This group was composed of 2 males and 18 females. While the total N of 20 is low the sample represents approximately thirty percent of the teachers of the trainable in the state of Michigan.

Visiting Teachers

The term visiting teachers is confusing in some respects. The program is essentially a school social work program.

Children requiring visiting teacher service are those who possess social or emotional problems which tend to interfere with education or social adjustment. An analysis of referrals to this service will reveal problems in school adjustment, home adjustment, social and personal adjustment as well as physical problems.

The visiting teacher holds a teacher's certificate and specific approval to serve as a visiting teacher. Recently the program title has been changed to that of school social worker. While the rules and regulations governing the operation of this new program have not been approved as of this writing it is understood that social workers without teaching certificates may be employed in this role. However, the data collected in this area was from professional workers with both teaching certificates and specific approval in the visiting teacher area.

The visiting teacher sample consisted of 13 males and 23 females.

Diagnosticians

The services of diagnosticians are designed to provide a method by which children may be evaluated and selected for the educational and training programs for mentally retarded students. Essentially their responsibility is the diagnosis

of problems possessed by children who are referred due to academic failure, provision of interpretive data and follow-up, and re-evaluation of children referred for possible program adjustment. While the comparison is not wholly accurate diagnosticians in Michigan are many times identified with the title "school psychologist".

The diagnosticians are the only group in the total sample who are not required to hold a valid Michigan Teacher's Certificate. Membership in either the American or Michigan Psychological Associations may be substituted for the teaching certificate.

The diagnostician group was composed of 17 males and 15 females.

Teachers of the Visually Handicapped

This group was composed of teachers of both blind and partially sighted children. As with the retarded, Michigan supports two kinds of programs for the visually handicapped. One of these is the special classroom which may be attended by both the blind and the partially sighted. Usually children are integrated into regular classrooms as soon as they can compete and profit from such a setting. Another kind of service is provided by trained teachers of the visually handicapped to children who are placed in regular classrooms.

The "teacher-counselor" provides the visually handicapped child and the regular teacher with special instruction and materials. All teachers in this group held a valid teaching certificate and were approved teachers of the visually handicapped.

This group contained 9 males and 29 females.

Teachers of the Auditorily Handicapped

Programs for the child with a hearing handicap take two forms. The first of these is the special classroom. The primary education of the child is conducted in this environment with integration into the regular classroom accomplished as soon as the child demonstrates an ability to achieve in this more competitive environment. The second is a program which utilizes a trained teacher of the deaf and hard of hearing to support the child who has a hearing handicap who is placed in a regular classroom. This teacher, referred to as a teacher-counselor, also provides support to the regular teacher through ongoing consultation.

All teachers of the auditorily handicapped who participated in this study held valid Michigan teaching certificates. In addition each was a state approved teacher of deaf and hard of hearing children.

This group was composed of 9 males and 20 females.

Speech Correctionists

The primary responsibility of the speech correctionist is the provision of evaluation, diagnosis, and therapy to pupils referred due to abnormalities of speech, voice, or language. Michigan makes provision for a reimbursed therapist for each 75 children certified as requiring the service. All correctionists participating in this study held valid Michigan teaching certificates. In addition, each was an approved speech correctionist.

The speech correction group was composed of 9 males and 22 females.

SELECTION OF VARIABLES

The selection of variables resulted from the theoretical considerations discussed in Chapter II. The demographic data were included as a result of traditional sociological approaches to the study of group interaction.

The theoretically dictated variables were those thought to have a direct relationship to the criterion variables of attitudes toward physical disability and toward education. Demographic variables chosen for study were included due to conclusions reached by researchers in sociology and attitude studies. Those chosen for study were: (a) mobility, (b) personalism, (c) institutional satisfaction, (d) religiosity,

and (e) change orientation. The major variables used in the study are discussed in the following section.

Attitudes Toward Physical Disability

The items used in this scale were taken from the Attitude Toward Disability Scale (Yuker, et. al., 1960). Adequate test-retest reliability scores were reported, and various construct validity measures were all collected from the disabled employees of Abilities Incorporated of New York. Among these employees the test was found to be negatively related to age and anxiety, and positively related to verbal intelligence and job satisfaction. Although the validating group may have questionable generality the scale is the only one known to be in existence and does provide an initial means of determining relationships among attitudes held by various groups of special educators toward the physically handicapped.

Modifications were made in the provisions for respondent scoring. The Likert-type format was retained, but the response categories for each item were reduced from seven to four. A further modification was made in the ATDP scale in the format of the respondent item alternatives following each question. Originally the subjects were required to transfer a number from a set of coded alternatives in response

to each item. This modification was designed to simplify the response task as well as to decrease total examination time.

Fifteen of the 20 attitude items are statements of differences between disabled persons and those not disabled. Agreement with these statements is interpreted as reflecting unfavorable attitudes toward the physically handicapped. In utilizing this scale with teachers of the handicapped it is reasonable to question whether disagreement is a reflection of unfavorable attitude or a statement of fact based upon long hours of association with the handicapped. Since this is the only scale available which attempts to determine attitudes toward the disabled it was decided to include the scale in the present research.

Attitudes Toward Education

Modifications similar to those described above were made on the Attitudes Toward Education Scale developed by Kerlinger (Kerlinger, 1958, 1961; Kerlinger and Kaya, 1959). The scales represent a factor analysis of a set of 40 items administered to 598 subjects of varying backgrounds, but all apparently of above average education. The scales have been found to hold up under cross-validation. Friesen (1966) postulated that the items may be too complex for many people

and challenged the lack of inclusion of individuals of low educational achievement in the validation procedures. While his observations may be accurate they would not seem to apply to the present experimental group which is made up of individuals who have a high level of educational achievement.

The education scale in its present form consists of 20 items of which 10 are indicative of "progressive" educational concepts and 10 of "traditional" concepts. As employed in this study, the progressive and traditional items were analyzed as separate scales.

For both the ATDP scale and the ATE scale an attempt was made to determine how strongly or intensely each respondent felt about his answer. The basic premise for such a measure is summarized by Suchman (1950).

A simple approximation of the intensity function has been successfully attained by asking a question about intensity after each content question. One form used for an intensity question is simply: "How strongly do you feel about this?" with answer categories of "Very strongly", "Fairly strongly", and "Not so strongly". Repeating such a question after each content question yields a series of intensity answers. Using the same procedure as...for content answers, these are scored and each respondent is given an intensity score. The intensity scores are then cross tabulated with the content scores (Suchman, p. 219).

This procedure as described by Suchman was utilized in the present study, excepting that four response categories were used instead of three.

Interpersonal Values

In selecting the Gordon Survey of Interpersonal Values (Gordon, 1960), two factors were considered: first, an instrument was needed which would yield scores on items that seemed logically related to the values under test in the hypotheses, those of "asset" orientation to others, and "comparative" orientation to others. Of the six sub-scales in the instrument, the one for Benevolence is described as follows: "Doing things for other people, sharing with others, helping the unfortunate, being generous" (Gordon, 1960, p. 3). Among studies presented in a subsequent research brief, benevolence was found to correlate .49 with the nurturance score on the Edwards Personal Preference Schedule (EPPS) and negatively with achievement (-.24) and aggression (-.28) (Gordon, 1963, p. 22). It was decided on the basis of the description, the item content, and the inter-correlations with the EPPS that the Gordon benevolence value would be an adequate operationalization of the "asset value".

The second value to be operationalized was that of a "comparative" orientation toward others. The Gordon manual offers the following definition for Recognition value: "Being looked up to and admired, being considered important, attracting favorable notice, achieving recognition" (Gordon,

1960, p. 3). The following definition was offered for Conformity value: "Doing what is socially correct, following regulations closely, doing what is accepted and proper, being a conformist" (Gordon, 1960, p. 3). Leadership was defined as "Being in charge of other people, having authority over others, being in a position of leadership or power" (Gordon, 1960, p. 3). All three of these values would appear to involve rankings of others on some kind of absolute scale, either of social acceptability (Conformity), achievement (Recognition), or power (Leadership). On the basis of surface consideration of such content the Recognition and Leadership items were judged to be most representative of comparative values.

Personal Contact Variables

Personal contact variables related to contact with education and with the handicapped. These were represented by 16 items in the questionnaires. Six items sought to determine level of education, type and amount of education, gain from and enjoyment of education, and alternatives to education as a vocational choice. Eight items were utilized to determine the specific amounts and varieties of contacts with the physically handicapped. Two items measured the amount of contact with the mentally retarded and the

emotionally disturbed. While each of these items generated a score it is known that such single item scores are unstable and as a result the reliability of the data may be subject to question. It is felt, however, that the total N for males and females and for each of the seven disability areas is great enough to assure a randomization of error. The single item scores should be sufficient data to determine if differences among groups of special educators are present with regard to the several measures of contact with the handicapped and with education.

Preferences for Personal Relationships

This set of three items (PQ 22-24) was devised to help identify respondents along a traditional-modern dimension. The predominance of affective relationships as opposed to affectively neutral relationships is supposedly one of the distinguishing characteristics of the "Gemeinschaft", or traditional orientation (e.g., Loomis, 1960, p. 61ff). Question 22 asked the respondent to indicate the approximate percent of personal interactions on the job which were with persons who were close personal friends. Question 23 asked how important it was to work with persons who were close friends. Question 24 was intended to measure diffuseness or specificity of personal interactions under the hypothesis

that the traditionally oriented person is more likely to have personal interactions which are diffused between job and family, or other affective non-job interactions. "Members of the *Gemeinschaft* like system are likely to know each other well, their relationships are functionally diffuse in that most of the facets of human personality are revealed in the prolonged and intimate associations common to such systems" (Loomis, 1960, p. 72). Special educators, being committed to "asset" values (by hypothesis), being more concerned with the intrinsic valuation of the person rather than valuing him for his absolute achievements, should express a greater need for personal interactions and a greater diffuseness of interpersonal relationships. It is assumed that a comparison among groups of special educators will indicate no significant differences in preferences for personal relationships.

Institutional Satisfaction

A series of eight questions (PQ 33-1-8) adopted from Hyman (1955, p. 400) was utilized to determine attitudes toward institutional satisfaction. The institutions selected (schools, business, labor, government, health services, churches) were listed and an opportunity offered to indicate whether they were judged excellent, good, fair, or poor in

respect to how well they do their particular job in the community. Friesen (1966) postulated but was unable to confirm that individuals in special education and rehabilitation would be less satisfied with institutions than individuals from management and labor. The assumption is made herein that when different types of special educators are compared among themselves there will be no significant differences among the groups with regard to institutional satisfaction.

Change Orientation

Six questions (PQ 41-44, 46-47) were originally adopted from Programa Interamericano de Informacion Popular (PIIP) in Costa Rica. The respondents were asked to react to a number of statements designed to assess their attitudes in such areas as health practices, child rearing practices, birth control, automation, political leadership, and self-change. Responses were on a four point scale from strongly agree to strongly disagree. Friesen (1966) hypothesized that special educators would possess greater flexibility and openness to change when compared with labor and management. He was unable to confirm his hypothesis. To the extent that these questions reflect a traditional-progressive philosophy they are interesting in a comparison of attitudes held by

differing sub-sets of special educators. It is postulated that no difference will exist among the seven special education groups with regard to change orientation.

Religiosity

Three questions (PQ 20, 21, 38) were oriented toward religion. Question 20 was a statement of religious preference. Question 21 related to the importance of religion to the respondent while question 38 asked the respondent the degree to which he conformed to the rules and regulations of the church. It was postulated that no difference would exist among the special education groups relative to religiosity.

Demographic Variables

Respondents were asked in the PQ to respond to several items which are of interest and have been found to be significant in sociological analysis. These were education (no. 28-30), occupation (no. 39), rental (no. 32), age (no. 9), sex (face sheet), marital status (no. 13), number of children (no. 14), number of siblings (no. 17, 18), home ownership (no. 31), mobility (no. 10, 11, 12), and rural-urban youth (no. 10). In the analysis not all of these variables will be used, however, each is important to the larger cross-national research project referred to earlier.

COLLECTION OF DATA

All of the data, with the exception of a portion of the diagnostician group, were collected through the process of group administration. With this exception either the author, Dr. John E. Jordan or Dr. Eugene Friesen were present during the administration of the instruments to the various groups.

The following procedures and instructions were carefully followed in each of the special education workshops utilized for data collection: (a) a statement of appreciation for the cooperation of the group, (b) a general statement of the reason for the investigation, (c) a statement of the format of the administration, (d) and an oral explanation of the various instruments.

The instruments were administered in the following order:

1. Definitions of the Disability
2. Attitudes Toward Education
3. Survey of Interpersonal Values
4. Personal Questionnaire
5. Attitudes Toward Handicapped Persons
6. Personal Questionnaire (Handicapped Persons)

STATISTICAL PROCEDURES

Descriptive

Two frequency Column Count Programs (Clark, 1964) designated as FCC I and FCC II, were used. These programs were used to compile the frequency distributions for every item. This proved to be a very useful step in selecting variables for analysis and in gaining a clinical "feel" for the data.

Scale and Intensity Analysis

The general procedures are discussed by Suchman (1950, Chapters 4 and 7). In working with Likert-type items, two problems arise which call for special techniques. The first is that of organizing the respondent-item matrix so that items can be dichotomized with the aid of visual inspection and counting. Once the items are dichotomized into 0, 1 categories the second problem, common to all Guttman-type scale procedures, is that of re-ordering respondents in the order of their new total scores, and then recording the items for inspection of the resulting scale pattern.

Various techniques have been proposed such as the use of specially constructed boards which employ shot to indicate item responses (Suchman, 1950, Ch. 4). A technique employing

no special equipment except a typewriter was suggested by Waisanen (1960), which is appealing by virtue of its simplicity. While the Waisanen technique was very helpful, the "CUT" Computer program, developed by Hafterson (1964) at Michigan State University, saved numerous hours of work and avoided errors which have resulted from a longer and more tedious method. The program determined each possible cutting point as well as the number of errors involved in each cut. The dichotomized items were then scaled by the Multiple Scalogram Analysis program in use with the CDC 3600 Computer at Michigan State University (Lingoes, 1963; Hafterson, 1964). All scales, for both content and intensity, were submitted to the same procedure.

The procedure for combining the content and intensity scales is described by Suchman (1950, Ch. 7). The basic procedure is to form a matrix of scores such that total intensity scores are entered on the vertical axis and total content scores are entered on the horizontal axis. Respondents are tabulated in the resulting cells on the basis of the two total scores received for each scale; one in content, one in intensity. For each content rank, a median intensity score is computed. The curve of intensity on content is formed by these median scores. The lowest point of the

curve represents the psychological "0" point which divides favorable from unfavorable opinion or attitude (Suchman, 1950, pp. 220-223).

Mean Differences Analysis

For convenience of computer programing, the F statistic was used for all testing of mean differences, even though differences between two means are usually tested by the t statistic. The results are the same (Edwards, 1960, p. 146). If an F between two means is significant, inspection of the size of the two means will indicate which one is higher and thus the main contributor to the differences reflected in the F.

Since a significant F merely shows that the variance projected in the hypothesis is greater than could be expected by chance the specific relationship between the dependent variable and the variable represented by the levels or groups must be investigated. Duncan's New Multiple Range Test (Edwards, 1960, p. 136ff), as extended for unequal replications by Kramer (1960), was used to investigate the extent to which a particular sub-group mean contributed to the total variance represented by the F test. This enabled the researcher to order the group means from high to low and then to examine the "difference" between successive pairs-of-means to

ascertain which one(s) did in fact statistically depart from chance at a stated level of significance.

The LS routine (Ruble, Kiel, Rafter, 1966 a) was used to calculate the two-way analysis of variance statistics. The program was originally designed to handle multiple regressions and has been adapted for management of unequal frequencies occurring in the various categories. In addition to the analysis of variance tables, the frequency, sums, means, standard deviations, sums of squares, and sums of squared deviations of the mean were included for each category. The approximate significance probability of the F statistic is also included. This convenient figure enabled the researcher to know at a glance whether or not the F was significant without referring to a table. For example, if the number printed out was .05, the level of confidence, with the appropriate degree of freedom, for a given F would be .05. However, if .00 was printed out, the level of confidence was to be considered to be .005 or less.

Relational and/or Predictive Analyses

Partial correlation is one of the outputs of the general multiple regression model used in the CDC 3600 program at Michigan State University (Ruble, Kiel, Rafter, 1966 b). One benefit of the use of partial correlation is that a number

of variables which are assumed to have some relationship to a criterion, or dependent variable, can be examined simultaneously. Often, when a series of Pearsonian product-moment r's are computed between a criterion and a set of variables considered to be predictors of the criterion, spurious conclusions may be obtained because the predictor variables are themselves interrelated, rather than directly predictive of the criterion. In a partial correlation solution to the problem these relationships among the predictor variables are taken into account in computing the true correlation of each variable with the criterion. That is, the effects of all but one variable are held constant. The use of multiple regression analysis is recommended by Ward (1962, p. 206) because it "not only reduces the dangers inherent in piecemeal research but also facilitates the investigation of broad problems never before considered 'researchable'."

In the CDC 3600 MDSTAT program (Ruble and Rafter, 1966 a) a great deal of data can be gathered from one analysis. Separate analyses can be done for the total group and for any number of specified sub-groups, or partitionings, of the data. For each specified group (e.g., total, male-female, etc.) a number of statistics can be requested.

Those used for each partitioning in this research project were: means and standard deviations for each variable, the matrix of simple correlations between all variables, the multiple correlations of selected variables on the criterion, the beta weights of all (i.e. those used) predictor variables, a test of significance for each beta weight, and the partial correlations between each predictor and the criterion.

In actual practice, only the descriptive statistics, the zero-order correlations, the multiple correlations, and the partial correlations have been used in the analysis. Tests of significance of the correlation coefficients from zero are the usual ones, with tables entered for the appropriate degrees of freedom.

Several multiple regression analyses were done. The first set of analyses used as a criterion the total raw scores from the handicapped persons scale, the second set used respectively the total raw scores on the progressive and traditional education scales, and the third set used the scores from change orientation items.

MAJOR RESEARCH HYPOTHESES

Hypotheses Related to Contact Frequency and Attitude Scores

H-1: Contact - Intensity Interactions

H-1a: Among the sub-sets of special educators no significant differences will exist between amount of contact with disabled persons and scores on the intensity statements of the attitude-toward-disabled persons (ATDP) scale, regardless of whether attitude content is favorable or unfavorable.

Hypothesis derivation: From considerations of Rosenberg and Foa, and Guttman and Foa, to the effect that contact frequency is directly related to attitude intensity, regardless of content directions (see Pages 44 and 66, above).

Instrumentation: Contact frequency, by a direct question, number 4 of the Personal Questionnaire - HP (Appendix A); ATDP intensity scores obtained through independent intensity questions following each attitude content statement (see Appendix A).

H-1b: Among the sub-sets of special educators no significant differences will exist between frequency of contact with education and scores on the intensity statements of the Kerlinger Attitudes Toward Education scale, regardless of whether attitude is traditional or progressive.

Hypothesis derivation: Same as H-1a above.

Instrumentation: Contact frequency, by a direct question, number 3 of the Personal Questionnaire (Appendix A); education intensity scores obtained as in H-1a above (see Appendix A).

H-2: Contact - Frequency Interactions

H-2a: Among the sub-sets of special educators no significant differences will exist between favorable attitudes toward disabled persons and amount of contact with the disabled even when the special educators (a) have alternative rewarding opportunities, (b) enjoy the contact, and (c) can easily avoid the contact.

Hypothesis derivation: From considerations of Heman's (see page 39 above) Zetterberg (see page 40 above), and various studies in special education (see page 40 above).

Instrumentation: Attitudes toward disabled persons, by a 20 statement attitude instrument developed by Yuker, et. al. (1960) and modified for the purposes of the present study (Appendix A). Contact variable by direct questions in the Personal Questionnaire--HP: frequency by question number 4, alternatives by number 9, enjoyment by number 8, and avoidance by number 5.

H-2b: Among the sub-sets of special educators no significant differences will exist between high frequency of contact with education and attitudes toward education even when frequency of contact with education is concurrent (a) alternative rewarding opportunities, (b) enjoyment of the contact, and (c) ease of avoidance of contacts.

Hypothesis derivation: Same as H-2a above.

Instrumentation: Attitudes toward education, by a 20-statement attitude instrument developed by Kerlinger (1959) and modified for the purposes of the present study. Contact variable by direct questions in the Personal Questionnaire: frequency by question number 3, alternatives by number 6, enjoyment by number 5, and avoidance by number 4.

Hypotheses Related To Attitude-Value Interactions

H-3a: Among the sub-sets of special educators no significant differences will exist between scores on items indicating need for power and control over others and scores on items indicating acceptance of disabled persons.

H-3b: Among the sub-sets of special educators no significant differences will exist between scores on items indicating need for power and control over others and scores on the measures of progressive and traditional attitudes toward education.

Hypothesis derivation: From considerations of Wright in respect to asset vs. comparative valuations of others (see page 38 above), and of Rosenberg to the effect that the more

the belief content of an attitude is instrumental to value maintenance, the more favorable will be the evaluation of the object of the attitude (page 11 above). Persons with high power needs are applying a comparative yardstick in evaluations of others and should be expected to devalue persons with disabilities as well as progressive attitudes toward education since the latter usually implies changes in the status quo. Some empirical findings of this appears in findings of Whiteman and Lockoff (1962) in respect to blindness and in Felty (1965).

Instrumentation: Need for power and control measured by the Leadership (L) scale of the Gordon Survey of Interpersonal Values (Appendix A); attitudes-toward-disabled-persons, as in H-2a, and attitudes toward education as in H-2b.

H-4a: Among the sub-sets of special educators no significant differences will exist between scores indicating need for recognition and achievement and scores on items measuring acceptance of disabled persons.

H-4b: Among the sub-sets of special educators no significant differences will exist between scores indicating need for recognition and achievement and measures of traditional and progressive attitudes toward education.

Hypothesis derivation: Same as H-3.

Instrumentation: Need for recognition and achievement measured by the Recognition (R) scale of the Gordon Survey of Interpersonal Values (Appendix A), attitudes toward disabled persons as in H-2a, and attitudes toward education as in H-2b.

H-5a: Among the sub-sets of special educators no significant differences will exist between scores indicating need to help others and to be generous and scores indicating acceptance of disabled persons.

H-5c: Within the "total" special education group no significant differences will exist between sex and (a) the need to help others, (b) attitudes toward the disabled and (c) progressive attitudes toward education.

Hypothesis derivation: As in H-4, but stated in terms of an asset-value orientation rather than a comparative-value orientation.

Instrumentation: Need to be helpful and generous measured by the Benevolence (B) scale of the Gordon scale of Interpersonal Values (Appendix A), attitudes-toward-disabled-persons as in H-2a and attitudes toward education as in H-2b.

Hypotheses Related to Characteristics of Special Educators

H-6a: Among the sub-sets of special educators no significant differences will exist between scores on change orientation variables and scores indicating attitudes toward disabled persons.

H-6b: Among the sub-sets of special educators no significant differences will exist between scores on change orientation variables and scores on measures of traditional and progressive attitudes toward education.

Hypothesis derivation: Same as H-3 above and extended to connote that high scores on change orientation represents departure from the status quo and high relationship to progressivism and concern for individual differences.

Instrumentation: Change orientation measured by questions 41-46 in the PQ attitudes toward the handicapped measured as in H-2a and toward education as in H-2b.

H-7: Among the sub-sets of special educators no significant differences will exist in mean attitude-toward-disabled-persons scores.

Hypothesis derivation: From considerations of Zetterberg (see page 40, above), to the effect that high frequency of contact is positively associated with favorableness of attitude if (a) the interaction could be easily avoided, and (b) there are other rewarding activities to engage in.

Instrumentation: Attitudes toward disabled persons measured as in H-2a.

H-8: Among the sub-sets of special educators no significant differences will exist in scores on measures of Benevolence, Recognition, or Leadership.

Hypothesis derivation: Same as H-3 above.

Instrumentation: Same as H-3, H-4, and H-5.

H-9: Among the sub-sets of special educators no significant difference will exist among scores indicating either progressive or traditional attitudes toward education.

Hypothesis derivation: Same as H-3.

Instrumentation: Same as H-2.

H-10: Among the sub-sets of special educators no significant differences will exist on the following change orientation variables: (a) health practices, (b) child rearing practices, (c) birth control practices.

Hypothesis derivation: Same as H-3a, b and extended to imply that persons who score high on progressive attitudes toward education will also score high on the change orientation variables since both represent dissatisfaction with the status quo and emphasize the individual and empirical solutions to current problems.

Instrumentation: A series of questions in the Personal questionnaire.

H-11: Among the sub-sets of special educators no significant differences will exist in mean scores indicating amount of contact with retarded and emotionally disturbed persons.

Hypothesis derivation: From observations that most physically handicapped children have multiple disability with retardation and emotional disturbance representing either the primary or secondary disability. In a comparison of special educators it seems reasonable to assume that a great number of contacts with the handicapped would yield similar numbers of contacts with the retarded and disturbed when the sub-sets of special educators are compared.

Instrumentation: Contact frequency with the mentally retarded as measured by question 9 PQ-HP and with the emotionally disturbed as measured by question 10 PQ-HP.

CHAPTER IV

ANALYSIS OF THE DATA

The analysis of the data is organized into two main sections.

Section 1, descriptive data on designated characteristics of the sample;

Section 2, the testing of the hypothesis presented in Chapter III and comparisons of mean differences of various scores when the respondents are grouped according to (a) sex, (b) area of exceptionality, (c) contact with criterion, and (d) related indices. Correlational relationships (zero-order, multiple, and partial) will also be presented for selected variables of the study.

Section 1: Descriptive Data

In this section the descriptive characteristics of the sample are presented. The data is derived from a combination of FCC I and II programs and the CDC 3600 MDSTAT program which provides a number of statistics useful for simple demographic description.

Table 1 presents the two major subdivisions of the total sample: sex and area of exceptionality. Inspection of the table reveals two factors which later lead to difficulty in the interpretation of the data: the small

number in some of the areas of exceptionality and the sex-linked character of some of the occupational groups. It is obvious that for some of the hypotheses in which sex differences are obtained, the sex composition of the teachers by area of exceptionality represents an important factor in analysis of group differences.

The low number of respondents in some areas of exceptionality, especially when the sexes are separated, is not considered to be a product of inappropriate sampling. It appears rather that this is a reflection of two things: (a) most classroom teachers of exceptional children are female and, (b) the number of programs available for some disability areas is limited as a function of decreased incidence.

Two groups present some concern in the analysis of the results. Only two male respondents were available among teachers of the trainable mentally handicapped making it impossible to analyze sex differences within this group of teachers. In addition, the total number of respondents in the speech correction group (31) may not be representative of the total population of speech correctionists in Michigan.

Table 1 --Distribution of respondents according
to sex and area of exceptionality

SEX	EMH	TMH	DHH	BPS	S	VT	D	TOTAL
MALE	34	2	9	9	9	13	17	93
FEMALE	98	18	20	29	22	23	15	225
TOTAL	123	20	29	38	31	36	32	318

1 EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Deaf and Hard of Hearing
 BPS - Blind and Partially Seeing

S - Speech Correction
 VT - Visiting Teachers and Social Workers
 D - Diagnosticians and Psychologists

Differences in Mean Education, Income,
and Age Scores by Special Education
Groups and Sex

Table 2 presents data on education, income, and age for each of the sub-sets of special educators by group and by sex.

Table 3 presents the Duncan's multiple means analysis of one of the demographic variables (education), presented in Table 2. The Duncan New Multiple Range Test (Edwards, 1960, p. 136ff), as extended for unequal replications by Kramer (1960) is used to determine the extent to which any special education sub-group contributes to the total variance represented by the F test. Such a procedure makes it possible to order untested mean rankings from high to low and then examine the "difference" between successive pairs-of-means to determine which one(s) do in fact statistically depart from chance at a stated level of confidence.

Table 4 provides an interpretation of education scores in terms of actual educational attainment. Each score represents a range of educational achievement and provides an ordinal scale wherein a lower score represents a lower level of attainment.

Income levels were coded in an ordinal manner as well. Scores of 1 annual income of less than \$1000, scores of 2 less than \$2000, etc.

Table 2 --Comparison of mean differences, standard deviations, and F statistics in respect to three demographic variables for special education personnel.

Variable	Occupation ¹	N	Mean	Standard Deviation	F		Sig. of F	
					1	2	1	2
					way	way	way	way
					sex	group	sex	group
Education	EMH	135	7.26	0.889	.7182	4.940	.40	.005
	TMH	20	6.85	1.040				
	DHH	31	7.23	0.884				
	BPS	38	6.97	1.304				
	S	32	7.03	0.740				
	VT	36	7.78	0.422				
	D	31	7.58	1.205				

Untested Ranking of Means: VT(7.78)>D(7.58)>EMH(7.26)>DHH(7.23)>S(7.03)>BPS(6.97)>TMH(6.85)

Duncan Ranking of Means: VT>TMH, BPS, S, DHH, EMH, D;
D>TMH, BPS, S, DHH, EMH; EMH>TMH,
BPS, S; DHH>TMH, BPS, S; S>TMH;

Age	EMH	135	44.40	12.249	10.351	5.463	.005	.005
	TMH	20	40.75	14.052				
	DHH	30	38.30	12.225				
	BPS	38	35.13	13.380				
	S	32	31.55	11.659				
	VT	36	42.19	9.786				
	D	32	38.22	11.350				

Untested Ranking of Means: EMH(44.30)>VT(42.19)>TMH(40.75)>DHH(38.30)>D(38.22)>BPS(35.18)>S(31.56)

Duncan Ranking of Means: EMH>S; BPS; D; DHH-VT>S; BPS-TMH>S-DHH>S-D>S

Table 2 (continued) --Comparison of mean differences, standard deviations, and F statistics in respect to three demographic variables for special education personnel.

Variable	Occupation ¹	N	Mean	Standard Deviation	F		Sig. of F	
					1	2	1	2
					way	way	way	way
					sex	group	sex	group
Income	EMH	135	10.45	3.979	.9282	2.037	.08	.18
	TMH	20	12.05	5.155				
	DHH	31	11.81	4.392				
	BPS	37	10.03	4.512				
	S	32	9.81	3.906				
	VT	36	11.89	3.560				
	D	31	11.42	3.757				

Untested Ranking of Means: TMH(12.05)>VT(11.89)>DHH(11.81)>
D(11.42)>EMH(10.45)>BPS(10.03)>
S(9.81)

- ¹EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Hearing Handicapped
 BPS - Visually Handicapped
 S - Speech Handicapped
 VT - Visiting Teacher
 D - Diagnostician

Table 3 --Duncan's new multiple range test applied to means of education scores for special education personnel.

Tange of Mean (p)	2	3	4	5	6	7	d.f.	323
Studentized ranges for 5% test (Zp) ¹	2.77	2.92	3.02	3.09	3.15	3.19		
R'p (RI s3p 323) ²	.806	.850	.879	.899	.917	.928		
Mean Differences ³								
$\bar{X}_{VT} - \bar{X}_{TMH}$ (p7)						4.71*		
$\bar{X}_{VT} - \bar{X}_{BPS}$ (p6)					4.92*			
$\bar{X}_D - \bar{X}_{TMH}$ (p6)					3.60*			
$\bar{X}_D - \bar{X}_{BPS}$ (p5)				3.56*				
$\bar{X}_{VT} - \bar{X}_S$ (p5)				4.36*				
$\bar{X}_{EMH} - \bar{X}_{TMH}$ (p5)				2.42*				
$\bar{X}_{VT} - \bar{X}_{DHH}$ (p4)			3.17*					
$\bar{X}_D - \bar{X}_S$ (p4)			3.08*					
$\bar{X}_{DHH} - \bar{X}_{TMH}$ (p4)			1.87*					
$\bar{X}_{EMH} - \bar{X}_{BPS}$ (p4)			2.23*					
$\bar{X}_S - \bar{X}_{TMH}$ (p3)		.88*						
$\bar{X}_{VT} - \bar{X}_{EMH}$ (p3)		2.74*						
$\bar{X}_{EMH} - \bar{X}_S$ (p3)		1.15*						
$\bar{X}_{DHH} - \bar{X}_{BPS}$ (p3)		1.07*						
$\bar{X}_D - \bar{X}_{DHH}$ (p3)		1.38*						
$\bar{X}_{VT} - \bar{X}_D$ (p2)	1.05*							
$\bar{X}_D - \bar{X}_{EMH}$ (p2)	2.26*							
$\bar{X}_{EMH} - \bar{X}_{DHH}$ (p2)	.21							
$\bar{X}_{DHH} - \bar{X}_S$ (p2)	1.12*							
$\bar{X}_S - \bar{X}_{BPS}$ (p2)	.35							
$\bar{X}_{BPS} - \bar{X}_{TMH}$ (p2)	.61							

¹Taken from Edwards (1960, p. 373).

²The square root mean square of the analysis of variance of Table 3 $S = \sqrt{.848} = .291$ p the range of means (2-7)

³Mean differences of columns 2-7 have been transformed into the equivalent of t- scores for multiple means. To be significant, the figure must exceed the R'p value of the same column. The formula given by Kramer (1957) is:

$$(X_M - X_Z) \sqrt{\frac{2n_{yn}3}{n_y \& n_3}}$$

*Significant .05 level or higher

Table 4 --Interpretation of education scores in terms of actual educational attainment.

Score	Interpretation	Range of interval in terms of years of schooling completed
1	3 years or less	0-3 inclusive
2	6 years or less	4-6 inclusive
3	9 years or less	7-9 inclusive
4	12 years or less	10-12 inclusive
5	some college	13-15 inclusive
6	college degree	
7	work beyond degree	
8	advanced degree	

Summary of Descriptive Data in Tables 2-3

Table 2 indicates no significant differences between men and women with regard to education. However, when the special educators are compared by group greater than chance differences do occur. Analyses of the Duncan results indicate that visiting teachers have significantly more education than each of the other special education groups. Diagnosticians exceed all groups other than visiting teachers while teachers of the educable mentally handicapped have significantly more

education than do teachers of the blind, speech handicapped, and trainable retarded children. The level of educational attainment of teachers of the deaf exceeds that of teachers of the blind, trainable retarded, and speech correctionists.

Analysis of annual income resulted in no significant differences when data was analyzed by sex and by group.

With regard to age, the comparison by sex indicates significant age differences. Actually the mean age of women in the total sample was 42.3 years while the mean age for men was 36.7 years.

Table 2 indicates significant group differences with regard to age. The Duncan analysis reveals that teachers of educable retarded children are significantly older than are speech correctionists, teachers of the visually handicapped, diagnosticians, and teachers of the deaf. Visiting teachers are older than speech correctionists and teachers of the visually handicapped. Teachers of the trainable mentally handicapped as well as teachers of the deaf and diagnosticians are significantly older than speech correctionists.

Section 2: Hypothesis Testing, Mean Differences, and Correlational Analysis

H-1a: Among the sub-sets of special educators no significant differences will exist between amount of contact with disabled persons and scores on the intensity statement of the attitude-toward-disabled-persons scale, regardless of whether attitude content is favorable or unfavorable.

Table 5 represents a comparison of approximately 55 percent of all special educators having the highest intensity scores on the ATDP scale with approximately 39 percent having the lowest intensity scores. As is indicated the resulting significance of the F statistic is not sufficient to reject the null hypothesis.

Table 5 -- Means, standard deviations, and F statistic comparing high and low frequency of contact with disabled persons with intensity scores on the ATDP scale.

Variable	N	Mean of ATDP intensity scale	S.D.	<u>F</u>	Sig. of F
High Frequency of Contact	185	63.28	7.254	1.277	.26
Low Frequency of Contact	130	62.35	6.943		

H-1b: Among the sub-sets of special educators no significant differences will exist between frequency of contact with education and scores on the intensity statements of the Kerlinger Attitudes Toward Education Scale, regardless of whether attitude is traditional or progressive.

Table 6 indicates that the mean differences between persons with high and low contact with education, are not significantly different on progressive intensity scores.

Table 6 --Means, standard deviations, and F statistic comparing high and low frequency of contact with education with intensity scores on the progressive-attitude-toward education scale.

Variable	N	Mean of progressive intensity scale	S.D.	<u>F</u>	Sig. of F
High Frequency of Contact	118	34.34	3.07	.39	.54
Low Frequency of Contact	173	34.10	3.23		

Table 7 reveals that the mean differences between high and low contact and traditional intensity scores are significant.

While the null hypothesis cannot be rejected as it relates to progressive intensity scores it is rejected with regard to traditional intensity scores.

Table 8 presents the zero-order correlations between contact scores and intensity scores on the ATDP scale and the correlations between contact scores and the intensity scores for both progressive-attitude-toward-education scores and traditional-attitude-toward-education scores for each of the special groups. The correlations for males and females within each group are also given.

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Table 7 --Means, standard deviations, and F statistic comparing high and low frequency of contact with education with intensity scores on the traditional-attitude-toward-education scale.

Variable	N	Mean of traditional intensity scale	S.D.	<u>F</u>	Sig. of <u>F</u>
High Frequency of Contact	118	32.84	3.39	.76	.01
Low Frequency of Contact	173	31.69	3.88		

Table 8 indicates that no significant correlation exists between amount of contact with disabled persons and intensity scores on the ATDP scale for any special education group. Comparison of contact scores with intensity scores on the progressive education scale reveals no significant correlations.

When contact scores are compared with intensity scores on the traditional education scale significant correlation is revealed for male teachers of the visually handicapped and both male and female speech correctionists.

Table 8 --Zero-order correlations between amount of contact with disabled persons and intensity scores on the attitude-toward-disabled-persons scales.

		ATDP ¹ Scale		Education Scale			
		r	n	Progressive		Traditional	
		r	n	r	n	r	n
EMH	M	-.098	34	-.357	34	-.078	34
	F	-.129	96	-.263	95	-.078	95
TMH	M ²	-	-	-	-	-	-
	F	.329	18	-.060	18	-.337	18
DHH	M	.015	9	.013	9	.152	9
	F	.215	20	-.445	20	.047	20
BPS	M	-.013	9	-.539	9	-.014	9
	F	.142	28	.173	28	-.064	28
S	M	.243	9	-.026	9	.753*	9
	F	.375	21	.038	21	-.216	21
VT	M	-.169	13	-.442	13	-.572*	13
	F	.219	23	-.486	23	-.518*	23
D	M	-.027	17	-.282	17	-.157	17
	F	-.497	15	.152	15	.368	15

¹Low scores on ATDP indicate positive attitudes.

²Sample size inadequate to allow analysis.

* < .05

H-2a: Among the sub-sets of special educators no significant differences will exist between favorable attitudes toward disabled persons and amount of contact with the disabled even when the special educators (a) have alternative rewarding opportunities, (b) enjoy the contact, and (c) can easily avoid the contact.

As indicated by Table 9, the multiple correlation relating to the combined contact variables and positive attitudes toward the handicapped is significant. The null hypothesis is rejected.

Table 9 --Multiple correlations for combined contact variables with attitudes toward disabled persons and toward education (progressive and traditional).

Variable	N 347	r	Sig.
H.P. attitude and combined contact variable		.1838	<.01
Traditional education attitude and combined contact variables		.2078	<.01
Progressive education attitudes and combined contact variables		.1083	<.05

Table 10, reveals that enjoyment of the contact with the handicapped contributes most toward predicting attitudes toward handicapped persons.

H-2b: Among the sub-sets of special educators no significant differences will exist between high frequency of contact with education and attitudes toward education even when frequency of contact with education is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of the contact, and (c) ease of avoiding the contact.

Table 9 indicates that the correlation between the combined contact variables and both progressive and traditional educational attitudes is significant. The null hypothesis is rejected.

Attempts to partial out the factors contributing most to the correlation (Table 10) yielded no single contributor for those holding progressive attitudes toward education.

Table 10, does however, reveal that amount of contact with education contributes more to the multiple correlation than other variables when attitudes toward education are traditional.

Table 10 --Partial correlations between attitude-toward-handicapped-persons and attitudes toward education (both progressive and traditional) as related to contact variables.

Handicapped Persons Scale (Dependent)	N	Sig.
	308	
Amount of Contact	r -.02	N.S.
Avoidance of Contact	r -.09	N.S.
Enjoyment of Contact	r -.14	<.05

Progressive-Attitudes-Toward-Education (Dependent)	N 342	
Amount of Contact	r -.06	N.S.
Enjoyment of Contact	r -.05	N.S.
Alternatives of Contact	r -.02	N.S.

Traditional-Attitudes-Toward-Education (Dependent)	N 342	
Amount of Contact	r .20	<.01
Enjoyment of Contact	r -.03	N.S.
Alternatives to Contact	r -.05	N.S.

H-3a: Among the sub-sets of special educators no significant differences will exist between scores on items indicating need for power and control over others and scores on items indicating acceptance of disabled persons.

Table 11, reveals that the significance level is not sufficient to reject the null hypothesis.

Table 11 --Means, standard deviations, and F statistic comparing high and low scores on leadership value and attitudes-toward-disabled-persons scores.

Variable	N	Mean	S.D.	<u>F</u>	Sig. of <u>F</u>
High scores on leadership value	120	43.64	4.81	1.20	.27
Low scores on leadership value	102	44.40	5.51		

H-3b: Among the sub-sets of special educators no significant differences will exist between scores on items indicating need for power and control over others and scores on the measures of progressive and traditional attitudes toward education.

As indicated by Tables 12 and 13 the differences between special educators with high scores on leadership value and those with low scores on leadership value were significant as they related to both progressive and traditional attitudes toward education. The null hypothesis is rejected.

Table 12 --Means, standard deviations, and F statistic comparing high and low scores on leadership value and progressive-attitude-toward-education scores.

Variable	N	Mean of Progressive Scale	S.D.	<u>F</u>	Sig. of F
High scores on leadership value	119	32.31	3.46	4.92	.03
Low scores on leadership value	103	31.25	3.64		

Table 13 --Means, standard deviations, and F statistic comparing high and low scores on leadership value and traditional-attitude-toward-education scores.

Variable	N	Mean of Traditional Scale	S.D.	<u>F</u>	Sig. of F
High scores on leadership value	119	24.90	4.32	9.05	.005
Low scores on leadership value	103	26.51	3.57		

H-4a: Among the sub-sets of special educators no significant differences will exist between scores indicating need for recognition and achievement and scores on items measuring acceptance of disabled persons.

Table 14 indicates that significant differences do not exist between scores indicating high and low recognition values and scores on the ATDP scale. The null hypothesis cannot be rejected.

Table 14 --Means, standard deviations, and F statistic comparing high and low scores on recognition value and score on the attitude-toward-disabled-person-scale.

Variable	N	Mean ATDP	S.D.	<u>F</u>	Sig. of F
High scores on recognition value	112	43.98	5.19	.01	.88
Low scores on recognition value	106	44.06	4.69		

H-4b: Among the sub-sets of special educators no significant differences will exist between scores indicating need for recognition and achievement and measures of traditional and progressive attitudes toward education.

Tables 15 and 16 reveal that the significance of the differences relating high and low scores on recognition values with progressive and traditional attitudes toward education is not sufficient to reject the null hypothesis.

Table 15 --Means, standard deviations, and F statistic comparing high and low scores on recognition value and scores on the progressive-attitude-toward-education scale.

Variable	N	Means Prog. Ed.	S.D.	<u>F</u>	Sig. of F
High scores on recognition value	112	31.71	3.23	1.50	.22
Low scores on recognition value	108	32.27	3.48		

Table 16 --Means, standard deviations, and F statistic comparing high and low scores on recognition value and scores on the traditional-attitude-toward-education scale.

Variable	N	Means Trad. Ed.	S.D.	<u>F</u>	Sig. of F
High scores on recognition value	112	25.42	3.77	2.03	.15
Low scores on recognition value	108	26.17	4.09		

H-5a: Among the sub-sets of special educators no significant differences will exist between scores indicating need to help others and to be generous and scores indicating acceptance of disabled persons.

Table 17 indicates that the differences between high and low scores on benevolence values and scores on the ATDP scale are not sufficient to cause rejection of the null hypothesis.

Table 17 --Means, standard deviation, and F statistic comparing high and low scores on benevolence value and scores on the attitude-toward-disabled-persons scale.

Variable	N	Mean of ATDP Scale	S.D.	<u>F</u>	Sig. of F
High scores on benevolence value	127	43.64	5.24	1.18	.28
Low scores on benevolence	117	44.36	5.09		

H-5b: Among the sub-sets of special educators no significant differences will exist between scores indicating need to help others and to be generous and attitudes toward education.

Tables 18 and 19 indicate that the differences between scores on the benevolence scale and scores on the progressive and traditional attitude toward education scales are not sufficient to cause rejection of the null hypothesis.

Table 18 --Means, standard deviations and F statistic comparing high and low scores on benevolence value and scores on the progressive-attitude-toward-education scale.

Variable	N	Mean of Progressive Scale	S.D.	<u>F</u>	Sig. of F
High scores on benevolence value	127	32.19	3.62	.52	.48
Low scores on benevolence value	117	31.86	3.43		

Table 19 --Means, standard deviations, and F statistic comparing high and low scores on benevolence value and scores on the traditional-attitude-toward-education scale.

Variable	N	Mean of Traditional Scale	S.D.	<u>F</u>	Sig. of F
High scores on benevolence value	127	25.79	3.85	.40	.53
Low scores on benevolence value	117	25.47	4.16		

H-5c: Within the "total" special education group no significant differences will exist between sex and (a) the need to help others, (b) attitudes toward the disabled and (c) progressive attitudes toward education.

Analysis of table 20, indicates that differences between sex and need to help others is sufficient to cause rejection of the null hypothesis.

Differences between sex and both attitudes toward the disabled and progressive attitudes toward education are not sufficient to cause rejection of the null hypothesis.

Table 20 --Means, standard deviations, and F statistic for benevolence value scores, attitude-toward-disabled-persons scores, and progressive-attitude-toward education scores for males and females.

Variable	Sex	N	Mean	S.D.	<u>F</u>	Sig. of F
Benevolence	Male	103	18.44	5.84	4.36	.04
	Female	228	20.15	7.34		

Attitudes Toward Disabled Persons	Male	106	43.56	5.37	.63	.43
	Female	229	44.02	4.79		

Progressive- Attitudes- Toward- Education	Male	105	32.46	3.53	2.41	.12
	Female	232	31.81	3.52		

H-6a: Among the sub-sets of special educators no significant differences will exist between scores on change orientation variables and scores indicating attitudes toward disabled persons.

Table 21 indicates that the multiple correlation between change orientation and ATDP scores is not sufficient to reject the null hypothesis. When the five change variables are partialled out, as in Table 22, they make little differential contribution to the correlation.

Table 21 --Multiple correlations of change orientation variables with attitude-toward-disabled-persons and toward education (progressive and traditional).

Variable	N	r	Sig.
Attitude toward disabled persons and change orientation	340	.01	N.S.
Traditional education attitudes and change orientation	342	.02	N.S.
Progressive education attitudes and change orientation	342	.02	N.S.

H-6b: Among the sub-sets of special educators no significant differences will exist between scores on change orientation variables and scores on measures of traditional and progressive attitude toward education.

As indicated in Table 21, the differences between scores on the change orientation variables and measures of both traditional and progressive attitudes toward education are not sufficient to cause rejection of the null hypothesis.

Table 22 --Partial correlations between attitudes-toward-disabled-persons and attitudes toward education (both progressive and traditional) as related to change orientation variables.

Attitudes Toward Disabled Persons (Dependent)	r	Sig.
Health practices	-.01	N.S.
Child rearing practices	-.09	N.S.
Birth control practices	.01	N.S.
Political leadership	.01	N.S.
Self change	.02	N.S.

Traditional-Attitudes-Toward-Education (Dependent)		
Health practices	-.08	N.S.
Child rearing practices	-.07	N.S.
Birth control practices	-.02	N.S.
Political leadership	.00	N.S.
Self change	-.06	N.S.

Progressive-Attitudes-Toward-Education (Dependent)		
Health practices	.01	N.S.
Child rearing practices	.12	<.05
Birth control practices	.00	N.S.
Political leadership	-.03	N.S.
Self change	.06	N.S.

Summary of zero-order correlations
between attitudes toward the handicapped
and values by sex and special education groups.

Table 23 summarizes the relationships between attitudes toward the handicapped and values by sex and special education groups. Analysis indicates a significant positive relationship between Independence and ATDP for males within the DHH group.

Among females in the D group there exists a significant negative relationship between ATDP and Independence. Within the same group a significant positive relationship is indicated between ATDP and Benevolence.

Summary of zero-order correlations between
attitudes toward education and values by
sex and special education group.

Table 24 summarizes the relationships between attitudes toward education and values by sex and special education group.

Among both males and females in the EMH group significant positive relationships exist between attitudes toward education and Conformity values. A significant positive relationship also exists among males of the EMH Group between attitudes toward education and Benevolence values.

Table 23 --Zero-order correlations between attitude-toward-disabled-persons scale (content) and the Gordon Value Scale.

Group	Support Value		Conformity		Recognition		Independence		Benevolence		Leadership	
	r	n	r	n	r	n	r	n	r	n	r	n
EMH												
Male	-.098	32	.260	32	-.116	32	-.015	32	-.094	32	.048	32
Female	-.129	95	-.012	95	-.074	95	.076	95	-.109	95	-.028	95
TMH												
Male ¹	-	-	-	-	-	-	-	-	-	-	-	-
Female	.329	18	-.176	18	.263	18	-.028	18	-.150	18	-.019	18
DHH												
Male	.015	9	-.244	9	-.138	9	.705*	9	-.118	9	.123	9
Female	.215	19	.128	19	-.327	19	.319	19	-.232	19	-.175	19
BPS												
Male	-.013	8	-.135	8	-.366	8	.383	8	-.417	8	.372	8
Female	.142	27	-.105	27	.112	27	.183	27	-.242	27	.018	27
S												
Male	.243	9	-.002	9	-.009	9	-.288	9	.360	9	-.285	9
Female	.375	21	-.015	21	.008	21	.066	21	-.152	21	-.175	21
VT												
Male	-.169	13	-.174	13	-.343	13	.241	13	-.257	13	.343	13
Female	.219	23	.285	23	.247	23	-.167	23	-.164	23	-.248	23
D												
Male	-.027	17	.466	17	.123	17	.085	17	-.041	17	-.478	17
Female	-.497	15	.594*	15	-.196	15	-.537*	15	.533*	15	.135	15

¹Due to limited sample size no correlations are presented for this group.

* < .05

Table 24 --Zero-order correlations between attitudes-toward-education (content) and the Gordon Value Scale.

Group	Support Value		Conformity		Recognition		Independence		Benevolence		Leadership	
	Prog.	Trad.	Prog.	Trad.	Prog.	Trad.	Prog.	Trad.	Prog.	Trad.	Prog.	Trad.
EMH												
Male												
(N) 32	-.145	-.136	-.032	.351*	-.216	-.161	-.020	-.133	.419*	-.042	-.045	-.099
Female												
(N) 96	.007	-.093	-.184	.220*	-.006	-.058	-.016	-.166	.027	.017	.024	-.073
TMH												
Male												
(N)	-	-	-	-	-	-	-	-	-	-	-	-
Female												
(N) 18	-.443	.098	-.289	.291	-.552*	.191	.597*	-.425	.389	.191	-.110	-.233
DHH												
Male												
(N) 9	.490	.481	.391	.036	.360	.424	-.044	-.285	.265	.005	-.855*	-.444
Female												
(N) 19	-.101	-.201	-.535*	.409	-.232	-.228	.197	-.178	.053	.337	.451*	-.236
BPS												
Male												
(N) 8	-.504	-.142	.415	.843**	.014	.496	-.049	-.537	.111	-.037	-.145	-.523
Female												
(N) 28	.180	-.169	-.246	.504**	-.188	.015	-.003	-.177	.315	-.246	.085	-.068
S												
Male												
(N) 9	.325	-.514	-.091	.173	-.021	.328	.362	-.624	-.393	.050	-.086	.352
Female												
(N) 22	.098	-.059	.170	.070	-.107	.354	.290	-.120	-.191	-.206	-.184	-.011

* Due to limited sample size no correlations are presented for this group.

Table 24 (continued) --Zero-order correlations between attitudes-toward-education (content)
and the Gordon Value Scale.

Group	Support Value		Conformity		Recognition		Independence		Benevolence		Leadership	
	Prog.	Trad.	Prog.	Trad.	Prog.	Trad.	Prog.	Trad.	Prog.	Trad.	Prog.	Trad.
VT												
Male												
(N) 13	-.512	.009	-.306	.402	.123	-.144	.161	.083	.030	-.126	.319	-.338
Female												
(N) 23	-.471*	.123	-.257	.261	-.146	-.249	.202	-.034	.053	-.075	.495*	-.054
- - - -	-	-	-	-	-	-	-	-	-	-	-	-
D												
Male												
(N) 17	-.148	-.329	-.678*	.616**	-.082	-.133	.419	-.254	.306	.021	.383	-.257
Female												
(N) 15	-.037	.194	-.141	.326	.015	.124	.025	-.283	-.072	-.078	.182	-.247

* < .05

** < .01

A significant negative correlation is indicated among female teachers of TMH between attitudes toward education and Recognition values. A positive significant relationship is revealed, for female teachers of TMH between attitudes toward education and Independence values.

Further analysis of Table 24 indicates a significant negative correlation among female teachers of DHH between attitudes toward education and Conformity values. Within the DHH group males revealed a significant negative correlation between attitudes toward education and Leadership values while the differences among females for the same relationship was also significant but positive.

Among teachers of the BPS analysis of the correlation for both males and females indicates a significant positive relationship between attitudes toward education and Conformity values.

Table 24 reveals a significant negative correlation between attitudes toward education and Support values for female VT's. Female VT's also indicated a significant positive correlation between attitudes toward education and Leadership values.

Males within the D group indicate high negative correlations between attitudes toward education and Conformity and Recognition values.

Hypotheses related to characteristics of special educators.

H-7: Among the sub-sets of special educators no significant differences will exist in mean-attitude-toward-disabled persons scores.

Table 25 indicates that differences in mean scores in the ATDP scale are not sufficient to warrant rejection of the null hypothesis.

H-8: Among the sub-sets of special educators no significant differences will exist in scores on measures of Benevolence, Recognition, or Leadership.

Tables 26 and 27 indicate that the groups of special educators do not differ significantly on measures of Benevolence or Recognition. With regard to these variables the null hypothesis cannot be rejected.

However, Table 28 does indicate a significant difference between the special education groups on scores indicating high Leadership values. An analysis of the Duncan rankings indicates that diagnosticians have significantly higher Leadership values than do either teachers of the blind and partially sighted or teachers of the educable mentally handicapped. These results are sufficient to cause rejection of the null hypothesis.

Table 25 --Means, standard deviations and F statistic comparing scores on the attitude-toward-disabled-persons scale for all special education groups.

Group ¹	N	Mean ATDP	S.D.	F		Sig. of F	
				1 way sex	2 way group	1 way sex	2 way group
EMH	134	44.73	6.78	1.17	1.46	.28	.19
TMH	20	42.10	4.05				
DHH	31	42.90	4.24				
BPS	37	43.57	5.50				
S	31	45.45	4.37				
VT	36	42.61	5.40				
D	32	44.81	4.73				

Untested Ranking of Means: S(45.45) > D(44.81) > EMH(44.73) >
 BPS (43.57) > DHH(42.90) > VT(42.61) >
 TMH (42.10)

- ¹ EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Deaf and Hard of Hearing
 BPS - Blind and Partially Sighted
 S - Speech Correction
 VT - Visiting Teachers
 D - Diagnosticians

Table 26 --Means, standard deviations and F statistics for Benevolence value scores for all special education groups.

Group ¹	N	Mean Benevolence	S.D.	F		Sig. of F	
				1 way sex	2 way group	1 way sex	2 way group
EMH	132	20.96	8.32	1.91	1.15	.16	.33
TMH	20	18.65	5.86				
DHH	30	17.53	6.04				
BPS	36	20.05	5.35				
S	32	17.25	6.27				
VT	36	19.86	5.32				
D	32	18.12	5.36				

Untested Ranking of Means: EMH(20.96)> BPS(20.05)>
 VT(19.86)> TMH(18.65)> D(18.12)>
 DHH(17.53)> S(17.25)

- ¹
- EMH - Educable Mentally Handicapped
 - TMH - Trainable Mentally Handicapped
 - DHH - Deaf and Hard of Hearing
 - BPS - Blind and Partially Sighted
 - S - Speech Correction
 - VT - Visiting Teachers
 - D - Diagnosticians

Table 27 --Means, standard deviations and F statistics for Recognition value scores for all special education groups.

Group ¹	N	Mean Recognition	S.D.	F		Sig. of F	
				1 way sex	2 way group	1 way sex	2 way group
EMH	132	9.86	8.53	.01	1.47	.88	.19
TMH	20	11.30	4.08				
DHH	30	9.43	4.00				
BPS	36	10.05	4.31				
S	32	12.28	4.87				
VT	36	9.42	3.58				
D	32	11.44	5.10				

Untested Ranking of Means: S(12.28) > D(11.44) > TMH(11.30) >
 BPS(10.05) > EMH(9.86) > DHH(9.43) >
 VT(9.42)

- ¹
- EMH - Educable Mentally Handicapped
 - TMH - Trainable Mentally Handicapped
 - DHH - Deaf and Hard of Hearing
 - BPS - Blind and Partially Sighted
 - S - Speech Correction
 - VT - Visiting Teachers
 - D - Diagnosticians

Table 28 --Means, standard deviations and F statistics for Leadership value scores for all special education groups.

Group ¹	N	Mean Leadership	S.D.	F		Sig. of F	
				1	2	1	2
				way	way	way	way
				sex	group	sex	group
EMH	132	10.98	9.69	2.88	2.72	.09	.01
TMH	20	11.10	5.87				
DHH	30	12.67	7.40				
BPS	36	9.89	5.41				
S	32	11.19	6.26				
VT	36	12.78	7.52				
D	32	15.37	6.89				

Untested Ranking of Means: D(15.37)> VT(12.78)> DHH(12.67)>
S(11.19)> TMH(11.10)> EMH(10.98)>
BPS(9.89)

Duncan Ranking of Means: D>BPS - D>EMH

-
- ¹ EMH - Educable Mentally Handicapped
TMH - Trainable Mentally Handicapped
DHH - Deaf and Hard of Hearing
BPS - Blind and Partially Sighted
S - Speech Correction
VT - Visiting Teachers
D - Diagnosticians

H-9: Among the sub-sets of special educators no significant differences will exist among scores indicating either progressive or traditional attitudes toward education.

Table 29 indicates that no significant differences exist among scores on measures of progressive attitudes toward education for the sub-sets of special educators.

Table 30 reveals significant differences among scores on traditional attitudes toward education for the special education groups. The Duncan ranking indicates that significant differences exist between the TMH group and the S group. Further analysis indicates that the EMH, DHH, and BPS groups each hold significantly greater traditional education orientations than do either the S, or D groups.

H-10: Among the sub-sets of special educators no significant differences will exist in the following change orientation variables: (a) health practices, (b) child rearing practices, (c) birth control practices.

Tables 31 and 32 indicate that no significant differences exist among the sub-sets of special educators with regard to health practice and child rearing responses.

Table 29 --Means, standard deviations and F statistics for progressive-attitudes-toward-education scores for all special education groups.

Group ¹	N	Mean Prog. Ed.	S.D.	F		Sig. of F	
				1	2	1	2
				way	way	way	way
				sex	group	sex	group
EMH	134	31.92	3.56	3.60	1.36	.07	.23
TMH	20	32.25	4.60				
DHH	31	30.64	4.25				
BPS	38	31.71	2.98				
S	32	32.31	2.64				
VT	36	32.34	3.66				
D	32	32.78	3.13				

Untested Ranking of Means: D(32.78)> VT(32.34)> S(32.31)>
 TMH(32.25)> EMH(31.92)>
 BPS(31.71)> DHH(30.64)

- ¹EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Deaf and Hard of Hearing
 BPS - Blind and Partially Sighted
 S - Speech Correction
 VT - Visiting Teachers
 D - Diagnosticians

Table 30 --Means, standard deviations and F statistics for traditional-attitudes-toward-education scores for all special education groups.

Group ¹	N	Mean Trad. Ed.	S.D.	F		Sig. of F	
				1 way sex	2 way group	1 way sex	2 way group
EMH	134	26.23	4.13	.12	2.80	.73	.01
TMH	20	26.35	2.83				
DHH	31	26.16	4.40				
BPS	38	26.10	3.41				
S	32	23.78	3.76				
VT	36	25.58	3.52				
D	32	24.37	3.89				

Untested Ranking of Means: TMH(26.35)> EMH(26.23)> DHH(26.16)>
BPS(26.10)> VT(25.58)> D(24.37)>
S(23.78)

Duncan Ranking of Means: TMH>S - EMH>S; D - DHH>S; D - BPS>
S; D

-
- ¹
 EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Deaf and Hard of Hearing
 BPS - Blind and Partially Sighted
 S - Speech Correction
 VT - Visiting Teachers
 D - Diagnosticians

Table 31 --Means, standard deviations and F statistics for health practice responses for all special education groups.

Group ¹	N	Mean Health Practices	S.D.	F		Sig. of F	
				1	2	1	2
				way	way	way	way
				sex	group	sex	group
EMH	135	4.70	.92	.06	.59	.79	.74
TMH	20	4.50	1.23				
DHH	31	4.52	1.12				
BPS	38	4.47	1.08				
S	32	4.53	.91				
VT	36	4.72	.66				
D	32	4.87	.55				

Untested Ranking of Means: TMH(1.23)> DHH(1.12)> BPS(1.08)>
EMH(.92)> S(.91)> VT(.66)> D(.55)

- ¹ EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Deaf and Hard of Hearing
 BPS - Blind and Partially Sighted
 S - Speech Correction
 VT - Visiting Teachers
 D - Diagnosticians

Table 32 --Means, standard deviations and F statistics for child rearing practice responses for all special education groups.

Group ¹	N	Mean Child Rearing Practices	S.D.	F		Sig. of F	
				1 way sex	2 way group	1 way sex	2 way group
EMH	135	4.06	1.28	.59	1.70	.45	.12
TMH	20	4.25	1.25				
DHH	31	3.68	1.14				
BPS	38	3.95	1.01				
S	32	3.78	1.10				
VT	36	3.58	1.23				
D	32	4.12	.79				

Untested Ranking of Means: TMH(4.25) > D(4.12) > EMH(4.06) >
BPS(3.95) > S(3.78) > DHH(3.68) >
VT(3.58)

- ¹EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Deaf and Hard of Hearing
 BPS - Blind and Partially Sighted
 S - Speech Correction
 VT - Visiting Teachers
 D - Diagnosticians

Table 33 indicates significant differences among the special education groups with regard to birth control responses. The Duncan analysis reveals that both the TMH and D groups differ significantly from the BPS and EMH groups; thus contributing most to the significance. This significance is sufficient to cause rejection of the null hypothesis.

H-11: Among the sub-sets of special educators no significant differences will exist in mean scores indicating amount of contact with retarded or emotionally disturbed persons.

Table 34 indicates that significant differences do exist among the special education groups in scores indicating amount of contact with mentally retarded persons. The Duncan analysis indicates that the amount of contact of the TMH and EMH groups exceeds significantly the amount of contact with the retarded of the DHH, VT, BPS, and S groups.

The D group contacts with the mentally retarded exceed those by the DHH, VT, and BPS groups at a significant level. Significant differences in amount of contact are also indicated when the S group is related to the DHH, and VT groups. Significance is also revealed when contacts of the BPS group are related to those of the DHH group.

Table 33 --Means, standard deviations and F statistics for birth control responses for all special education groups.

Group ¹	N	Mean Birth Control Practices	S.D.	F		Sig. of F	
				1 way sex	2 way group	1 way sex	2 way group
EMH	135	3.28	.93	.26	2.10	.62	.05
TMH	20	3.75	.44				
DHH	30	3.30	.79				
BPS	38	3.18	.77				
S	32	3.22	.87				
VT	36	3.42	.73				
D	32	3.66	.54				

Untested Ranking of Means: TMH(3.75) > D(3.66) > VT(3.42) >
DHH(3.30) > EMH(3.28) > S(3.22) >
BPS(3.18)

Duncan Ranking of Means: TMH > BPS; D > BPS; TMH > EMH; D > EMH

-
- ¹
 EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Deaf and Hard of Hearing
 BPS - Blind and Partially Sighted
 S - Speech Correction
 VT - Visiting Teachers
 D - Diagnosticians

Table 34 --Means, standard deviations and F statistics related to frequency of contact with the mentally retarded for all special education groups.

Group ¹	N	Mean M.R. Contact	S.D.	F		Sig. of F	
				1	2	1	2
				way	way	way	way
				sex	group	sex	group
EMH	134	4.64	.98	.67	14.53	.42	.005
TMH	20	4.85	.37				
DHH	31	2.93	1.57				
BPS	37	3.81	1.31				
S	32	4.09	1.30				
VT	36	3.42	1.25				
D	31	4.42	.88				

Untested Ranking of Means: TMH(4.85)> EMH(4.64)> D(4.42)>
S(4.09)> BPS(3.81)> VT(3.42)>
DHH(2.93)

Duncan Ranking of Means: TMH>DHH; VT; BPS; S-EMH>DHH; VT;
BPS; S-D>DHH; VT; BPS-S>DHH; VT-
BPS>DHH

- ¹EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Deaf and Hard of Hearing
 BPS - Blind and Partially Sighted
 S - Speech Correction
 VT - Visiting Teachers
 D - Diagnosticians

Differences are obtained when the special education groups are compared with regard to the amount of contact with emotionally disturbed persons. Table 35, reveals that these differences are significant. The Duncan analysis indicates that several relationships contribute to the significance level. The D group contacts exceed significantly those of the DHH, S, and EMH groups. The VT group contacts exceed the DHH and S groups at a significant level.

Both the TMH and BPS group contacts with the disturbed exceed those by the DHH group at a significant level. The EMH group contacts exceed significantly those by the DHH and S groups.

The levels of significance are sufficient to cause rejection of the null hypothesis.

Differences in mean scores on the
value sub-scales by special education
group and sex.

Three of the value sub-scales were considered in testing hypotheses 3,4 (p.93). Table 36, 37, and 38 reveal that no significant group differences exist in mean scores on value scores of Support, Conformity, or Independence values by the sub-sets of special educators.

Table 35 --Means, standard deviations, and F statistic related to frequency of contact with the emotionally disturbed for all special education groups.

Group ¹	N	Mean Emotionally Disturbed Contact	S.D.	F		Sig. of F	
				1 way sex	2 way group	1 way sex	2 way group
EMH	134	3.43	1.61	.43	3.28	.52	.005
TMH	19	3.74	1.33				
DHH	31	2.55	1.54				
BPS	37	3.57	1.48				
S	32	2.81	1.69				
VT	36	3.78	1.40				
D	31	3.81	1.33				

Untested Ranking of Means: D(3.81)> VT(3.78)> TMH(3.74)>
BPS(3.57)> EMH(3.43)> S(2.81)>
DHH(2.55)

Duncan Ranking of Means: D>DHH; S; EMH-VT>DHH; S-TMH>DHH-
BPS>DHH-EMH>DHH; S

- ¹EMH - Educable Mentally Handicapped
TMH - Trainable Mentally Handicapped
DHH - Deaf and Hard of Hearing
BPS - Blind and Partially Sighted
S - Speech Correction
VT - Visiting Teachers
D - Diagnosticians

Table 36 --Means, standard deviations, and F statistics for support value for all special education groups.

Group	N	Mean Support Value	S.D.	F		Sig. of F	
				1 way sex	2 way group	1 way sex	2 way group
EMH	132	17.13	8.70	.00	.49	.94	.82
TMH	20	18.65	3.69				
DHH	30	16.73	4.78				
BPS	36	18.39	5.04				
S	32	17.81	5.09				
VT	36	16.03	5.55				
D	32	16.37	5.22				

Untested Ranking of Means: TMH(18.65) > BPS(18.39) > S(17.81) >
 EMH(17.13) > DHH(16.73) > D(16.37) >
 VT(16.03)

-
- ¹EMH - Educable Mentally Handicapped
 TMH - Trainable Mentally Handicapped
 DHH - Deaf and Hard of Hearing
 BPS - Blind and Partially Sighted
 S - Speech Correction
 VT - Visiting Teachers
 D - Diagnosticians

Table 37 indicates that a significant difference exists when males and females are compared with regard to Conformity value. The mean score for the male group was 12.69 compared with a mean score for females of 15.41.

Table 37 --Means, standard deviations, and F statistics for conformity value for all special education groups.

Group ¹	N	Mean Conformity Value	S.D.	<u>F</u>		<u>Sig. of F</u>	
				1 way sex	2 way group	1 way sex	2 way group
EMH	132	16.57	9.37	5.96	2.07	.02	.06
TMH	20	13.40	5.67				
DHH	30	15.27	5.18				
BPS	36	16.00	5.48				
S	32	13.75	5.28				
VT	36	12.92	6.41				
D	32	9.56	5.80				

Untested Ranking of Means: EMH(16.57)> BPS(16.00)> DHH(15.27)>
S(13.75)> TMH(13.40)> VT(12.92)>
D(9.56)

- ¹
- EMH - Educable Mentally Handicapped
 - TMH - Trainable Mentally Handicapped
 - DHH - Deaf and Hard of Hearing
 - BPS - Blind and Partially Sighted
 - S - Speech Correction
 - VT - Visiting Teachers
 - D - Diagnosticians

Table 38 --Means, standard deviations, and F statistics for independence value for all special education groups.

Group ¹	N	Mean Independ. Value	S.D.	F		Sig. of F	
				1 way sex	2 way group	1 way sex	2 way group
EMH	132	17.89	8.80	.51	.78	.48	.59
TMH	20	16.35	6.21				
DHH	30	17.83	5.59				
BPS	36	15.78	5.45				
S	32	18.00	5.22				
VT	36	18.25	6.02				
D	32	18.16	5.16				

Untested Ranking of Means: VT(18.25)> D(18.16)> S(18.00)>
 EMH(17.89)> DHH(17.83)> TMH(16.35)>
 BPS(15.78)

- ¹
- EMH - Educable Mentally Handicapped
 - TMH - Trainable Mentally Handicapped
 - DHH - Deaf and Hard of Hearing
 - BPS - Blind and Partially Sighted
 - S - Speech Correction
 - VT - Visiting Teachers
 - D - Diagnosticians

CHAPTER V

DISCUSSION, SUMMARY AND RECOMMENDATIONS

This chapter will be divided into three major segments. The first of these will present a discussion of the basic research hypotheses.

The second segment will contain a summary of the theoretical and methodological issues. Under the latter heading there will be a summary of hypotheses construction, technical problems, sample, instruments, and analyses procedures.

The final section will contain recommendations and implications for future investigations of the attitudes of special educators toward the handicapped and toward education.

It should be noted that discussion in this chapter is restricted to the basic research hypotheses. Additional data were presented in Chapter IV which may be of interest to future researchers but which have no relationship to the basic dissertation topic.

Part I: Discussion of Research Hypotheses

As stated in Chapter I the purpose of this study was to investigate the attitudes of special educators toward education and physical disability utilizing technical, methodological, and theoretical concepts developed by Friesen (1966), Felty (1965), and Jordan (1961).

A review of these concepts and accompanying instrumentation is contained in Part II of this chapter.

The main focus of the current study was to investigate the relationship between interpersonal values, personal contact, attitudes, and selected demographic variables. The assumption was made that both contact and value serve as determinants of attitude.

H-1a, 1b attempted to determine the relationship between high and low frequency of contact with the handicapped and with education and how strongly the subjects felt about their responses to the content items of the ATDP scale and the measures of attitudes toward education.

Guttman and Foa (1951), Rosenberg (1960), and Zetterberg (1963), suggested that frequency of contact with an attitude object is directly related to attitude intensity regardless of the direction of the content.

Analysis of the data presented in Table 5 indicates no significant relationship between high and low frequency of contact with the handicapped and intensity of responses to the ATDP items. A comparison was made between approximately 55 percent of special educators reporting the greatest amount of contact with the handicapped and 39 percent reporting the least contact. Table 6 reveals that no significant relationship exist when scores indicating high or low frequency of contact with education are compared with corresponding intensity statements on measures of progressive-attitudes-toward-education. Felty (1965) and Friesen (1966) reported similar non-significant relationships.

Interpretation of these results is difficult. It seems apparent that the cutting point between high and low frequency of contact with both the handicapped and education is critical to the non-significant result. Since all special educators have high and similar levels of education, as indicated by Table 2, and report high frequency of contact with the handicapped the cutting point failed to reveal significant differences.

Table 7 indicates that a significant difference does exist between high and low frequency of contact with education and intensity scores on the traditional-attitudes-

toward-education scale. The zero-order correlations between scores indicating amount of contact with the handicapped and intensity scores on measures of traditional-attitudes-toward-education are presented in Table 8. The data reveals a significant correlation for male teachers of the visually handicapped and for both male and female speech correctionists. These results indicate that in the case of speech correctionists and male teachers of the visually handicapped a relationship does exist between amount of contact with the attitude object and intensity statements on the measures of traditional-attitudes-toward-education.

Table 2 reveals that the mean age of speech correctionists is significantly less than all other special education groups. In addition, speech correctionists have significantly less education than all groups other than teachers of the acoustically handicapped. To the extent that limited age and education in relation to other special education groups represents limited experience with the handicapped it can be argued that speech correctionists feel more positively about the handicapped than do other special education groups and feel more intensely that the beliefs they hold are correct.

H-2a, 2b attempted to determine the relationship between combined contact variables and attitudes toward the handicapped and toward education.

Hemans (1950) and Zetterberg (1963) indicated that contact per se with an attitude object was not sufficient to result in positive attitudes. They have suggested that the contact must be accompanied by suitable alternatives and must be enjoyable. In the case of the present study the availability of alternatives is interpreted as volitional contact with the handicapped and with education.

Table 9 indicates a significant positive correlation between the combined contact variables (amount of contact, ease of avoidance of the contact, enjoyment of contact) and favorable attitudes toward the handicapped. This result is in keeping with the findings of Zetterberg and others.

It would appear that while amount of contact with the handicapped may result in positive attitudes toward the handicapped, ease of avoidance of the contact and enjoyment of the contact also contribute to positive attitudinal development. Warren, Turner, and Brody (1964) provide further testimony to this observation. Their study revealed that limited exposure to the handicapped resulted in unchanged or negative attitudes toward disabled persons.

Table 9 also indicates that a significant relationship exists between both traditional and progressive attitudes toward education and the combined contact variables. Table 10 reveals that while none of the combined variables can be partialled out as contributing to progressive attitudes toward education, amount of contact with education makes the most significant contribution to traditional attitudes toward education. These results are contrary to Friesen's (1966) evaluation of the same variables for Colombia and Peru (p. 229).

Enjoyment of contact with the handicapped as the most significant of the combined contact variables in shaping positive attitudes toward the handicapped is not surprising in a comparison among sub-sets of special educators. The amount of contact among all groups is great. Avoidance of contact with disabled persons is not an easy task when your profession is the training and education of the handicapped. It is reasonable to assume that the majority of the respondents indicated this to be true. It is also reasonable to assume that if the subjects did not enjoy the individuals with whom they worked they would have opportunity, as certified teachers, to teach non-handicapped students.

Amount of contact with education as the greatest contributor to the development of traditional attitudes toward education is more difficult to explain.

The educational program for the handicapped, particularly the retarded and the physically handicapped, is in practice, traditional in nature. Due to the mental and physical limitations of the students in these programs the primary emphasis has been upon providing enough basic academic or vocational information to allow the student to compete with others following graduation. Further, the means of transmitting knowledge to the handicapped is and has been limited to teaching concepts that are traditionally oriented both in terms of method and goal as defined by Kerlinger (p. 42).

H-3 through H-5 were derived from the studies of Wright (1960), Rosenberg (1960), and Whiteman and Lukoff (1962). Wright indicated that there existed an asset vs. a comparative view of handicapped people. Rosenberg posited that the more the belief content of an attitude is instrumental to value maintenance, the more favorable will be the evaluation of the object of the attitude. Whiteman and Lukoff indicated that persons with high power needs tend to apply a comparative yardstick in evaluations of others and should be expected to devalue persons with disabilities as well as progressive

attitudes toward education since the latter usually implies changes in the status quo.

H-3a attempted to investigate the relationship between high and low scores on Leadership value and acceptance of disabled persons. Table 11 reveals that no significant differences exist when high and low Leadership values are compared with scores on the ATDP scale.

Two factors seem to contribute to the lack of significance of the result. As will be discussed later in this chapter, there exist no significant differences among the sub-sets of special educators relative to their attitudes toward disabled persons which in the case of H-3a constitutes the dependent variable. Had significant differences existed among special educators with regard to attitudes toward handicapped persons, we would have expected a greater chance for rejection of H-3a. Apparently the similarity among the respondents in terms of educational attainment, contact with the handicapped, and attitudes toward the handicapped is contributing to the lack of significance in H-3a. Secondly, it may be that the selection of the cutting point between high and low Leadership scores was such that it precluded any significant relationship between this dichotomy and attitudes toward disabled persons. Such an argument is weakened by the results of Friesen

(1966, p. 230) which failed to support the same hypothesis when special education personnel were compared with groups from business and labor. It may be that the Gordon Scale items which reflect the "comparative" approach (i.e. the Leadership scale), are not discriminating enough and consequently other measures of this concept should be utilized in the future.

H-3b represented an attempt to indicate the relationship between high and low scores on Leadership values and measures of traditional and progressive education.

Tables 12 and 13 indicate that special educators who scored high on Leadership value had significantly higher mean scores on both the progressive and traditional educational attitude scales. Friesen (1966, p. 231), reports similar findings for his Peruvian sample. Friesen suggests that difficulties in translation of the scales from one language to another may be responsible for the result. He further suggests that the validity and reliability of the instruments in the Peruvian setting are questionable due to the fact that many of his respondents had never before filled out a questionnaire. Neither of these observations tend to explain the results obtained in the present study. Obviously no problems of concept equivalence exist here and none of

the respondents could be judged as not having had appreciable experience with the form of the instruments.

Two factors would seem to have influenced the relationship between high Leadership scores and significant mean differences on both the progressive and traditional education attitude scales. The first of these is discussed in relation to H-3a (see page 132). The cutting point between high and low Leadership scores would seem to play a part in the results reported here. The second observation appears more critical in terms of explaining the rejection of the null hypothesis. Analysis of Tables 29 and 30 reveals significant differences among the sub-sets of special educators on both the traditional and progressive education scales. Friesen (1966, p. 141) reports similar results.

It appears that classroom teachers score high on the traditional education scale while itinerant special education personnel score high on the progressive educational scale. In addition, analysis of Table 28 indicates significant group differences between sub-sets of special educators and corresponding Leadership value scores. The Duncan analysis of the results (Table 28), indicates that differences existing between diagnosticians and teachers of the blind and partially sighted as well as teachers of the educable

mentally handicapped contribute most to the significance of the difference. No other significant differences exist between the groups of special educators and their Leadership value scores.

In selecting the cutting point for the analysis of high and low scores on Leadership value items in relation to traditional education scores it appears that itinerant special education personnel i.e.: speech correctionists, social workers, and diagnosticians, constitute the high group while classroom teachers of the handicapped i.e.: blind, deaf, and retarded, make up the low group; consequently significant relationships become apparent.

It would appear from the above discussion that at least some educators i.e.: diagnosticians, achieve significantly higher Leadership value scores than do teachers of educable retarded children and teachers of the visually handicapped. Further, it appears that while itinerant special education personnel score higher on measures of progressive education, classroom teachers of the handicapped score highest on traditional education items. Further discussion of these relationships is contained in the analysis of H-7.

H-4a represents an analysis of the relationship between scores indicating a need for recognition and achievement and scores indicating acceptance of disabled persons.

Table 14 indicates that significant differences do not exist between scores indicating high and low Recognition values and scores on the ATDP scale. Analysis of these data is difficult. The level of significance (.88) suggests that this relationship has little predictive value. Special educators scoring high on need for recognition and achievement do not have less acceptance of the handicapped than do special educators scoring low on need for recognition and achievement. Table 25 indicates that no significant differences exist among the sub-sets of special educators on scores indicating acceptance of disabled persons. Table 27 indicates a similar non-significant relationship among the sub-sets of special educators when scores on the Recognition scale are compared. These tables also indicate that no significant differences exists when special educators are compared by sex. In light of these findings it seems that one would not anticipate a significant relationship to exist when high and low scores are compared. It also appears that the range of scores on the Recognition value scale was limited thus revealing no significant differences.

H-4b related high and low scores on measures indicating need for recognition and achievement with measures of traditional and progressive attitudes toward education.

Tables 15 and 16 indicate that no significant relationship exists between individuals scoring high or low on the Recognition value scale and their scores on either the progressive or traditional attitudes toward education scale. It appears that the range of scores indicating Recognition values of special educators was too narrow to reveal significant relationships. It would appear that any comparison among sub-sets of special educators must take into consideration the progressive education leanings of itinerant personnel and the traditional education leanings of classroom teachers of the handicapped.

H-5a, b attempted to determine the relationships between individuals scoring high on items measuring the need to help others and to be generous with scores on measures of acceptance of disabled persons as well as measures of progressive and traditional attitudes toward education. The hypotheses were derived from the same sources as H-3a, b but were stated in terms of an asset-value orientation rather than a comparative value orientation.

Table 17, 18 and 19 reveal that no significant differences exist between individuals scoring high on Benevolence value and their attitudes toward disabled persons, progressive education, or traditional education.

As has been indicated with regard to measures of Recognition values (see page 137), the range of scores on Benevolence value is too narrow to result in significant differences.

H-5c was directed at determination of sex differences in relation to: (a) the need to help others, (b) attitudes toward the disabled, and (c) attitudes toward education.

Table 20 indicates that no significant sex differences exist when scores of males and females are compared on the ATDP scale and the measures of progressive-attitudes-toward education. Neither of these results is unexpected but the latter is interesting. Since significant differences do exist on progressive-attitudes-toward education when the sub-sets of special educators are compared the absence of sex differences tends to support the earlier observation that differences in scores on progressive and traditional measures of education are related to specific types of special educators rather than to sex or to special educators generally.

Table 20 also reveals that significant differences do exist when scores of males and females are compared on measures of Benevolence. The result is not surprising. Ours is a society in which we expect the female to be more benevolent. Our culture is such that, from an early age,

the male is not expected to be demonstrative or to reveal emotion. In addition, our university training programs attempt to instill in special educators a fundamental objectivity when relating to the handicapped. Such objectivity seems most related to the disciplines of social work, speech correction, and psychology from which the majority of the present male sample is derived.

H-6a attempted to determine the relationship between scores on selected change orientation items and scores on the ATDP scale.

H-6b represented an attempt to determine the relationship between scores on the change orientation items and scores on measures of progressive and traditional attitudes toward education.

The hypotheses were derived from those studies indicated under H-3a, b and extended to connote that high scores on change orientation represent departure from the status quo and high relationship to progressivism and concern for individual differences.

Table 21 reveals that the multiple correlation between change orientation and ATDP scores was not significant. When the six change variables were partialled out, as indicated by Table 22, they made little differential contribution to the multiple correlation.

Felty (1965) first suggested that attitudes toward change might have a salient relationship to attitudes toward education and toward the handicapped. Friesen (1966, pp. 157-158) included six change oriented variables in his study in an attempt to test Felty's observations. Friesen indicated that a significant relationship existed between ATDP scores and change oriented items in Peru and progressive-educational attitudes and change oriented items in Colombia. He also indicated that, while not significant, there was a relatively high relationship between progressive-educational-attitudes and change oriented items in Peru (pp. 232-333).

As has been indicated no significant relationships were revealed in the present study with regard to scores on change oriented items and scores on measures of attitudes toward education or toward the handicapped. It is interesting to note that all correlations between change orientation items and traditional-attitudes-toward education were negative with the exception of the political leadership item. All correlations between the change oriented items and progressive-attitudes-toward education were positive with the exception of the political leadership item. While it is difficult to interpret these data it would seem reasonable to assume that the direction of the results support Felty's (1965)

observation that high change orientation scores may represent a willingness or desire to reject the status quo and that individuals who feel that way will generally hold more progressive attitudes toward education and toward the handicapped. It would also follow that individuals expressing satisfaction with current conditions would be traditionally oriented with regard to the attitudes they hold toward education and thus less willing to change. This might account for the negative correlations between change orientation and traditional educational attitudes as well as the positive relationships between the change oriented factors and measures of progressive attitudes toward education.

H-7 attempted to determine the relationships among the sub-sets of special educators with regard to their attitudes toward handicapped persons.

The hypothesis was derived from considerations of Zetterberg (1963) who indicated that high frequency of contact with the handicapped is associated with positive attitude if (a) the interaction could easily be avoided; and (b) there were other rewarding activities to engage in.

Table 25 reveals that no significant differences exist among the sub-sets of special educators on scores indicating acceptance of disabled persons. The table also indicates

that no significant differences exist when the "total" special education group is analyzed by sex.

These results are not surprising. We may assume that all special educators in this sample voluntarily relate to the handicapped. Since each subject has a teaching certificate or its equivalent he also has alternatives to interaction with the handicapped. Any negativism among individuals in the total group should be randomized when the sub-groups are analyzed hence it would seem reasonable that differences in mean scores on the ATDP scale would not be significant.

The untested ranking of means indicates that speech correctionists and diagnosticians have the least accepting attitudes toward the handicapped while visiting teachers and those who instruct the trainable mentally handicapped seem to be most accepting of the handicapped.

H-8 attempted to determine the relationship between the value scores on attributes of Benevolence, Recognition, and Leadership, for each special education group and for males and females in the "total" special education sample.

The derivation of the hypothesis is the same as that indicated for H-3a, b above.

Tables 26 and 27 indicate that no significant relationship exists among the special education groups on scores indicating Benevolence and Recognition values. The tables also indicate

that among the "total" special education group no significant relationships exist in value scores on the same items for males and females.

It is usually assumed that one of the motivating factors for entry into the broad area of special education is a desire to help others particularly those viewed as being less fortunate than ourselves. For the purposes of this study the Benevolence value measure proposed by Gordon (1960), and defined in Chapter I, was utilized to measure the extent to which special educators desired to help others. While Table 26 indicated that differences in Benevolence values among the sub-sets of special educators were not significant it is interesting to see if special educators are more Benevolent value oriented than other groups. Gordon (1963) reports mean scores for 29 adult groups on the Benevolence scale. The special education group (EMH) showing the highest mean scores on the Benevolence scale (20.96) was exceeded by only one of the 29 adult groups reported by Gordon. The special education group (S) having the lowest mean score on the Benevolence value scale was exceeded by only 4 of the 29 adult groups reported by Gordon.

By inspection we can conclude that special educators tend not to differ significantly among themselves with regard

to Benevolence values but tend to exceed most other groups in terms of the importance of Benevolence values.

Table 27 reveals that the speech correction group had the highest mean score (12.28) on the Recognition value scale. This mean score is exceeded by 10 of Gordon's 29 adult groups. Visiting teachers had the lowest mean score (9.42) on the same scale. The (VT) mean score was exceeded by 26 of Gordon's 29 adult groups. It appears that while the sub-sets of special educators have similar Recognition values the desire of the total special education group to be looked up to or admired or to be considered important is not obviously greater, if as great, as other adult groups in our society.

Table 28 indicates that significant differences do exist in scores indicating the importance of Leadership value among the sub-sets of special educators. When males and females within the total special education group are compared on Leadership value scores no significant differences are indicated.

For purposes of this study Leadership value was defined as "being in charge of other people, having authority over others, being in a position of leadership or power". The role of the diagnostician in Michigan is such that he often

operates independent of any administrative authority. For the most part he is required to identify and evaluate the intellectual abilities of students having academic difficulty in the school society. Upon his recommendation children are retained in regular classrooms or are placed in special programs for the retarded. He not only assumes a great responsibility for the education of the retarded but is most often encouraged to do so in the absence of any other administrative authority. This may explain in part the great emphasis placed upon Leadership value by diagnosticians as a group. Teachers of the blind and partially sighted as well as teachers of the educable mentally handicapped are usually denied the opportunity of operating independently of administrative authority since they are tied to the classroom and generally have their programs dictated to them by school principals and the natural limitations of their students.

Another possible explanation of the diagnosticians high regard for Leadership values was presented in Table 2 which revealed that as a group they have significantly more education than all other special education groups. This might be interpreted as a sign of upward mobility which is generally reflected in Leadership drive.

It is interesting to note that the high mean Leadership value score of the diagnosticians (15.37) is exceeded by 20 of Gordon's (1963) 29 adult groups. The lowest mean score (9.89) recorded for the BPS group was exceeded by 27 of Gordon's 29 groups. It would appear that while diagnosticians recorded a significantly higher Leadership value score when compared to other special educators their need for power and authority is exceeded by many other adult groups. Special educators would not appear, as a group, to possess high Leadership values when compared with non-special educators.

H-9 attempted to determine the relationship existing among the sub-sets of special educators with regard to both progressive and traditional attitudes toward education. The hypothesis was derived as for H-3a, b.

Table 29 reveals that no significant differences exist among the scores on measures of progressive attitudes toward education. Table 29 also indicates that no significant differences exist when the scores for males and females within the total special education group are compared on the same measure.

Table 30 indicates significant group differences among scores on traditional attitudes toward education but no

significant sex differences. The Duncan rankings presented in Table 30 reveal that significant differences exist between the TMH group and the S group. Further analyses indicates that the EMH, DHH, and BPS groups each hold significantly greater traditional education orientations than do either the S or D groups.

In the case of progressive attitudes toward education a direction is quite clear although differences in scores proved not to be significant. The itinerant special education personnel (D, VT, S) had the highest scores while classroom teachers ranked below them on measures of progressive attitudes toward education.

The results presented in Table 30 present just the opposite picture. The classroom teachers of the handicapped (TMH, EMH, DHH, BPS) had the highest scores on measures of traditional attitude toward education while the itinerant special education personnel ranked below them. In this case the differences in group scores were significant.

One possible explanation of these results involves an analysis of the type of program or service offered by each of the special education groups (see Chapter I for a description of each program). Essentially diagnosticians,

visiting teachers, and speech correctionists move to the children needing their services and usually serve more than one school within the school district. Further, they have no direct responsibility for the education of the students they serve. The task of instruction is in the hands of regular or special education teachers. In the case of each of the three itinerant services it may be said that these professionals have only limited contact with the handicapped regardless of the frequency of the contact. The students are usually seen by these special educators only once or twice a week and then for a limited period of time. Such limited exposure would tend to minimize the development of any negative attitudes toward any single disability or individual.

Since the task of each of these itinerant groups is direct service to children, plus consultation to regular and special educators, their perception of the adequacy of existing programs may be considered to be basically negative. Since most programs for the handicapped can be best described as traditionally oriented the negativism of the itinerant personnel may be expressed as anti-traditional or pro-progressive as it relates to existing education programs.

The classroom teachers of the handicapped, on the other hand, are faced with the problems of daily instruction of students with very real limitations. This may dispose them to utilize a traditional educational approach to learning. Mastery of basic academic skills is the measuring stick with which progress is evaluated. The success of the special education program seems to depend in large part, upon the ability of the handicapped to do as well as their "normal" peers, thus traditional approaches seem justified and do provide opportunities for quantitative comparison of the handicapped with the normal. In most cases, any thought of more progressive types of programming and hence modifications of attitudes toward education generally, must be set aside by the classroom teachers so that the task of keeping their handicapped pupils as near normal as possible can continue.

Other factors which may have a bearing on the itinerant-progressive, classroom-traditional dichotomy are amount of education and age. Table 2 indicates that the diagnostician and visiting teacher groups tend to be better educated and younger than most classroom groups. This indicates that itinerant personnel have been more recently associated with

institutions of higher learning and have less actual teaching experience than do classroom teachers of the handicapped. These factors may account, in part, for a more progressive educational orientation on the part of itinerant personnel as well as a more traditional orientation on the part of classroom teachers of the handicapped.

H-10 attempted to determine if special education group differences existed with regard to selected change oriented variables.

Table 21 indicated that the differences between scores on the change oriented variables and measures of both progressive and traditional attitudes toward education were not significant. It had been postulated that those who scored high on measures of progressive attitudes toward education would also score high on the change oriented variables thus indicating a rejection of the status quo. Tables 31 and 32 indicate no significant group or sex differences when the sub-sets of special educators are compared on scores obtained for the change orientation factors of health practices and child rearing practices. It is interesting, however, that the itinerant special educators (S, VT, D) who scored highest on the measures of progressive attitudes toward education scored lowest on the

health practices responses and with the exception of the (D) group on the child rearing practices question as well. Such a result tends to cause rejection of a theory which relates progressive attitudes toward education with dissatisfaction with the status quo.

It appears that the converse may be true at least as it relates to special educators. It may be that classroom teachers of the handicapped who tend to hold more conservative or traditional educational beliefs see a child's environment as a deterrent to the child's success and hence the teacher's success. Expression of this feeling could well take the form of dissatisfaction with current health practices and child rearing practices. It should be remembered that no significant differences existed among sub groups in the health and child rearing practice responses hence it is necessary that we look at the direction of the responses reported in Tables 31 and 32.

Table 33 indicates that significant differences do exist among the special education groups with regard to scores on the birth control change variable. The table further indicates that when the total group is analyzed according to males and females there are no significant differences. The Duncan ranking reveals that both the (TMH) and (D) groups

differ significantly from the (BPS) and (EMH) groups thus contributing most to the significance of the difference.

It is first of all interesting to note that each of these groups with the exception of the diagnosticians is made up primarily of female teachers. Since Table 33 indicates no sex differences when the total special education group is analyzed in relation to birth control responses it would seem that some of the differences may be related to the types of handicapped children served by the special educators. Teachers of trainable mentally handicapped children as well as diagnosticians may perceive birth control as an effective means of minimizing the numbers of individuals who may be born severely mentally retarded. Since many of these children are clinical types and since heredity represents an important etiological factor such an argument would seem tenable. Hereditary factors, on the other hand, are not considered primary to the cause of educable retardation or visual disability.

Another factor which may play a part in significant differences in attitudes toward birth control practices is the limitation a disability places upon the handicapped. Teachers of trainable children and diagnosticians may perceive severe retardation as totally limiting since

generally such children must be institutionalized at some time during their lives and at best must have constant adult leadership and supervision. Neither the visually handicapped or educable retarded individual is generally perceived, by his teachers, as possessing a disability that will prevent him from sustaining himself and making a contribution to society.

H-11 attempted to determine if differences existed among the sub-sets of special educators with regard to the amount of contacts with retarded and emotionally disturbed persons. The hypothesis was derived from the observation that many physically handicapped children have multiple disabilities with retardation and emotional disturbance representing either the primary or secondary disability. It was inferred that the frequency of occurrence of multiple disabilities among the physically handicapped might be reflected in non-significant differences in the amount of contact with the retarded and with the emotionally disturbed reported by the sub-sets of special educators.

Table 34 revealed that significant differences did exist among the special education groups in amount of reported contact with the retarded. The Duncan analysis revealed that there were no significant differences in amount of

contact when the (TMH) and (EMH) groups were compared. Both the (EMH) and (TMH) groups reported significantly greater contact with the retarded than all other groups with the exception of the (D) group.

One interesting result was the fact that no significant difference existed in amount of contact with the retarded when the (D) and (S) groups were compared. The (S) group also differed significantly from the (DHH) and (VT) groups. It is difficult to explain these results. It may be that speech correctionists perceive many of the children they serve as being retarded. In addition, they are expected to offer speech therapy to the retarded child and since under Michigan law they must work with their speech groups at least twice each week the number of reported contacts with the retarded would be high. It would appear that a tabulation of the number of contacts with a given group is not, in and of itself, a useful measurement. Perhaps in addition to frequency of contact duration or intensity of the contact would be more helpful in exploring attitudes and attitude change.

Table 35 presents a comparison of the amount of contact reported by each special education group with emotionally

disturbed persons. The reported differences in frequency of contact are significant. When males and females among the total special education group were compared with regard to amount of contact with the emotionally disturbed no significant differences were revealed.

The Duncan analysis of the results of group comparisons indicated no significant differences when the (D) and (VT) groups were compared. Since the primary responsibility of the visiting teacher is to provide service to the disturbed and the primary role of the diagnostician, in Michigan, is to serve the retarded this result is somewhat surprising. One possible explanation centers around the referral method for diagnostic evaluation. It may be that many students referred to the diagnostician present emotional problems as the primary disability. In such cases each of these children would be reported as a contact with the emotionally disturbed. Another possible explanation is the perception of the retarded child by the diagnostician. Many such professionals may feel that the children they serve are emotionally disturbed as well as retarded. As was mentioned earlier, subsequent studies, may find that measures of frequency of contact with a given disability group should

be extended to include a measure of duration or intensity as well.

Another interesting comparison of frequency of contact with the emotionally disturbed by the special education groups is revealed through the Duncan analyses. The amount of contact with the disturbed reported by the (VT) group differed significantly from only two other groups namely the (DHH) and (S) group. This result indicates that the frequency of contact reported by the (TMH), (EMH), and (BPS) groups was similar to the frequency reported by the (VT) group. One possible explanation of this result is that teachers of the retarded and the visually handicapped perceive many of their students as possessing emotional problems severe enough to be classified as emotionally disturbed. Such perceptions would result in reports of greater frequency of contact with the emotionally disturbed. Another possible explanation is that many of the students served by these special educators have in fact been diagnosed as emotionally disturbed and because of limited programming or the feeling that some physical or mental limitation is the primary obstruction to learning have been placed in classrooms for the physically handicapped or retarded.

**Part II: Summary of the Theoretical
and Methodological Issues**

The primary focus of the present study was an evaluation of the attitudes of sub groups of special educators toward the handicapped and toward education utilizing the methods and techniques of Felty (1965) and Friesen (1966). A secondary purpose of the study was the collection of data on special educators in such a manner that it could be incorporated in a larger cross-cultural study.¹

Summary of Theory

Kerlinger's theoretical model was used to study attitudes toward education. He postulates a basic dichotomy which consists of a restrictive-traditional or permissive-progressive dimension of educational attitudes. He further suggests that the sharpness of the dichotomy is dependent upon occupational role, knowledge of and experience with education as well as the perceived importance of education (Kerlinger, 1956, p. 312). The present research is based on Kerlinger's assumption that the progressive-traditional dimension of attitudes toward education generalize to attitudes in other areas.

¹ See footnote on page 6.

The theoretical framework of the present research is generally consistent with the social-psychological orientation of Wright (1961) and Meyerson (1955, 1963) as far as attitudes toward physical disability are concerned. While their interactional propositions included such concepts as self, other, reference, groups and role, the main focus of this study had to do with attitudes, values, and contact as they relate to physical disability and to education.

Rosenberg (1960), Katz (1960), and Guttman and Foa (1951), have postulated certain relationships between attitudes and values. Katz points out that people are generally more inclined to change or give up attitudes inconsistent or unrelated to central values. From this orientation, there would be an expected consistency between the basic value of equality and the more specific attitude of favorableness toward opportunities for disabled persons and toward progressive education since the latter stresses individual participation and the inherent assets of the person.

With reference to physical disability, Wright, et. al. (1960) points out that values can be clustered according to whether they are derived from (a) comparisons, or from (b) intrinsic assets. One of the assumptions of the present study was that the sub-sets of special educators would view

the handicapped from an asset value orientation and that this postulated orientation would generalize to favorable progressive attitudes toward education as well as favorable attitudes toward change orientation as measured by the indices of the study.

Guttman and Foa (1951) have shown that attitude intensity is related to the amount of contact with the attitude object. Zetterberg (1963) observed that attitude intensity on the favorable-unfavorable continuum is related to perceived freedom or constraint of social interaction and whether this interaction is perceived as rewarding. Attempts were made to test interaction between contact frequency and the related contact indices of enjoyment of the contact and ease of avoidance of the contact.

Summary of Hypotheses Construction

All of the hypotheses were originally constructed by either Felty (1965) or Friesen (1966). The direction of the hypotheses was altered for purposes of the present study to enable comparison among the sub-sets of special educators.

H-1 and H-2 were designed to test the assumptions posited by Rosenberg (1960), Guttman and Foa (1951), and Zetterberg (1963), who suggested that frequency of contact with an attitude object is directly related to attitude intensity

regardless of the content direction.

H-3 through H-5 were aimed at testing the assumptions of Wright et. al. (1960) which posit a differential evaluation toward others between those who hold asset oriented values and those who hold comparative values.

H-6 was based upon the assumption that a significant relationship exists between progressive educational attitudes and change orientation, as well as asset orientation toward others.

H-7 through H-11 were derived from the assumption that the responses of the sub-sets of special educators would not differ significantly with regard to measures of attitudes toward education, change orientation, or value orientation. It was also assumed that attitudes toward education, whether progressive or traditional, would generalize to other areas.

Summary of Research Instruments

The major variables of the study may be summarized as follows: attitudes toward education and physical disability as they are influenced by values, contact, and related demographic indices.

The Attitudes Toward Education Scale, developed by Kerlinger, (Kerlinger, 1958, 1961; Kerlinger and Kaya, 1959) was used to measure both progressive and traditional

attitudes toward education.

The Attitudes Toward Disabled Persons Scale developed by Yuker and associates (1960) was utilized to measure attitudes of the respondents toward the handicapped.

Both the Kerlinger and Yuker scales were modified with a Likert-type intensity statement. This statement, containing four response alternatives, asked the respondent to indicate how strongly (i.e., sure) he felt about his answer to the content statements of the two scales.

Asset and comparative value orientations were measured by three sub-scales of the Survey of Interpersonal Values developed by Gordon (1963). Asset value orientation toward others was measured by the Benevolence sub-scale which was described as "Doing things for other people, sharing with others, helping the unfortunate, being generous" (Gordon, 1963, p. 3). Comparative value orientation toward others was measured by the sub-scales of Leadership and Recognition. Leadership value was described by Gordon (1963, p. 3) as "Being in charge of other people, having authority over others, being in a position of leadership or power". Recognition value was defined by Gordon (1963, p. 3) as "Being looked up to and admired, being considered important, attracting favorable notice, achieving recognition."

The contact frequency variable was supplemented by: enjoyment of contact, ease of avoidance of contact, and acceptable alternatives to contact for both education and physical disability.

Change orientation questions and demographic variables were included in the personal questionnaire.

Summary of the Sample

A detailed description of the total population is contained in Chapter III.

1. Teachers of the Educable Retarded: 34 male and 98 female teachers holding valid Michigan teaching certificates and approval as teachers of the mentally retarded.

2. Teachers of the Trainable Retarded: 2 males and 18 females meeting the same educational requirements as the educable group.

3. Visiting Teachers: 13 males and 23 females each of whom held a valid Michigan teacher's certificate as well as approval as a visiting teacher.

4. Diagnosticians: 17 males and 15 females represented the diagnosticians group. Each participant held a valid Michigan teacher's certificate, its equivalent or membership in the Michigan Psychological Association. Each was approved by the state to serve in the capacity of diagnostician.

5. Teachers of the Visually Handicapped: 9 males and 29 females who were certified teachers and approved to work with blind and partially sighted students.

6. Teachers of the Auditorially Handicapped: 9 males and 20 females who were certified and approved as teachers of the deaf and hard of hearing children.

7. Speech Correctionists: 9 males and 22 females who were certified as teachers and held Michigan approval to work with speech handicapped school children.

Summary of Statistical Procedures

Two frequency programs designated FCC I and FCC II were used to compile the frequency distributions of each respondent for every item.

Scale and intensity analysis was attempted. The items were dichotomized by the "CUT" computer program developed by Hafterson (1964). The dichotomized items were then scaled by the Multiple Scalogram analysis program in use with the CDC 3600 computer at Michigan State University (Lingoes, 1963; Hafterson, 1964). All scales were submitted to the same procedure. Since the items did not scale for content, intensity scaling was omitted.

The LS routine (Ruble, Kiel, Rafter, 1966) was used to calculate the two-way analysis of variance statistics. The

program, also originally designed to handle multiple regressions, was adapted for the management of unequal frequencies occurring in the various categories.

Zero-order as well as partial and multiple correlations were also used (CDC 3600 MDSTAT, Ruble and Rafter, 1966). These programs have been written to handle missing data in such a way that correlations are based only on respondents who answered both indicated items.

Part III: Recommendations and Implications

Recommendations Relating to the Instruments

Difficulty was encountered on the intensity measures of the ATDP scale as well as the two education scales. The Likert-type four item response proved less discriminating than was originally hoped. While this was undoubtedly due to the fact that the backgrounds of the respondents were so similar there would seem to be advantages to a greater range of choices in future attempts to determine the relationship existing between content responses and how strongly or surely the subjects feel about their responses.

The ATDP scale developed by Yuker and associates (1960) is the most widely used instrument available which attempts to determine attitudes toward the physically handicapped. This twenty item scale contains dated response items and tends

to handicap better informed or experienced respondents. Question number two for example states "physically handicapped persons are just as intelligent as non-handicapped ones". The four choice response categories ranging from "strongly disagree" to "strongly agree" offer very little room for satisfying the ambivalence created by the question. There is a tendency in responding to such questions to reduce response choices to only two i.e.: "disagree" or "agree". Such reduction decreases the power of the scale to effectively measure attitudes toward the physically handicapped. It is recommended that future investigators consider an expanded response scale such as would be possible by utilizing the semantic differential. The present ATDP scale would adequately lend itself to such modification.

Three sub-scales of the Survey of Interpersonal Values (Gordon, 1960) were utilized in the present study. The Benevolence value scale was utilized as a measure of asset value orientation. The value scales of Recognition and Leadership were selected as being acceptable measures of a comparative value orientation. Failure of the present study as well as those by Felty (1965) and Friesen (1966) to show the predicted relationship between high power needs, progressivism, and comparative value orientation should result

in a review of the hypotheses or the measures of value orientation. It is suggested that the Recognition value scale and the Leadership value scale are not equal measures of a single segment of the value domain. For purposes of future investigations it would seem as though the Leadership value scale could be considered an appropriate measure of a comparative value orientation. Future investigators should also consider the possibility of other value scale approaches to measuring the asset-comparative dimension.

Recommendations Relating to Sample Selection

The sample selected for the present study is considered adequate and representative of the groups of special educators currently employed in the State of Michigan. There were obvious difficulties imposed by the similar backgrounds of the respondents. Education, age, and experience were too closely related to assure detection of differences in value orientation, contact with the handicapped, and intensity of responses. It was indicated earlier (Chapter I) that no study had been located which attempted a comparison of sub-groups of special educators. The present study provides much information relative to special educators which was not previously available. This, in part, is

proper justification for the study, however, much information is still required comparing special educators with other educators, administrators, social workers, parents of the handicapped, and employers of the handicapped. Such comparisons are vital to the examinations of differences in value systems of those individuals most closely associated with the destiny of the handicapped members of our society.

Recommendations Relating to Analysis Procedures

Friesen (1966, p. 253) recommended the utilization of a design which would allow analysis of the interaction between occupational groups and sex. The present study employed a two-way analysis of variance design which proved quite satisfactory for that purpose. It is recommended that future studies employ this statistical procedure.

The author is in agreement with Friesen (1966) who recommended that future studies should examine the curvilinear vs. linear nature of proposed correlational relationships. The present study was in its final stages when this suggestion was made and so was unable to incorporate the recommendation.

Recommendations for Future Research

The findings of the present study in relating content responses to the intensity with which attitudes are held are

not conclusive. Even though it has been suggested that the instruments may have precluded more significant results it is recommended that this relationship be studied in greater detail. The relationship between content response and intensity of response would seem to be important in modification of attitudes. A determination of the significance of the relationship would prove of value in teacher training programs as well as in modifying the attitudes of prospective employers or the public generally in order to assure greater acceptance of the handicapped.

The existing relationships between attitudes toward the handicapped and attitudes toward education proved inconclusive in the present study. It was hypothesized that individuals who were most accepting of the handicapped would hold attitudes toward education that were essentially progressive in nature. Individuals less accepting of the handicapped, it was hypothesized, would hold more traditional attitudes toward education. It appears that among special educators the types of handicapped individuals served play a great part in shaping attitudes toward education as well as toward the handicapped. Future studies should seek to determine attitudes of students at the time they declare an interest in some area of special education and prior to extensive contact with the

handicapped in order to determine if the attitudes held by an individual determine his area of interest or whether continued contact with the handicapped tends to modify previously held attitudes.

Finally, it is essential, as recommended earlier that other groups be studied in relation to special educators. It is suggested that parents of the handicapped, regular classroom teachers, administrators, school board members, and employers be among these groups studied since the individuals in these groups to a great extent determine the future of the handicapped in our society.

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APPENDIX A *

- 1. Definitions of Disabling Conditions**
- 2. Attitudes Toward Education**
- 3. Survey of Interpersonal Values**
- 4. Personal Questionnaire**
- 5. Attitudes Toward Handicapped Persons**
- 6. Personal Questionnaire: HP**

* It will be noted in several places throughout the instruments that "alternatives" to a question appear on separate pages. In the actual instruments of the study all alternatives to a question were on the same page, thus facilitating response focus for the testee.

APPENDIX A
Instrumentation

**A-1 Definitions of Disabling
Conditions**

DEFINITIONS

What is meant by "physical handicap."

The words "physically handicapped" will be used often in the questions and statements that follow. Where these words are used, they will include persons with any of the following handicaps:

- 1. Blind persons - those who have no useful sight at all.**
- 2. Partly blind persons - those who have some sight but have trouble reading and getting about even with glasses.**
- 3. Deaf persons - those who have no useful hearing at all.**
- 4. Partly deaf persons - those who have some hearing but have trouble understanding other persons even with a hearing aid.**
- 5. Cripples or amputees - those who have arms or legs that have been paralyzed or removed even though they may be of some use with artificial hands or legs.**
- 6. Spastic (or cerebral palsy) - those who have poor control and coordination of their leg, arm, and head movements. Movements are often jerky and speech hard to understand.**
- 7. Disfigured - those who have been obviously damaged about the face, such as with burns or scars, so that the face has been changed.**

APPENDIX A
Instrumentation

A-2 Attitudes Toward Education

No. _____

Location _____

Male _____

Group _____

Female _____

Date _____

EDUCATION SCALE

Instructions: Given below are 20 statements of opinion about education. We all think differently about schools and education. Here you may express how you think by choosing one of the four possible answers following each statement. These answers indicate how much you agree or disagree with the statement. Please mark your answer by placing a circle around the number in front of the answer you select.

You are also asked to indicate for each statement how strongly you feel about your marking of the statement. Please mark this part of your answer in the same way as before, by placing a circle around the number in front of the answer you select.

-
1. The goals of education should be dictated by children's interests and needs as well as by the larger demands of society.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

2. No subject is more important than the personalities of the pupils.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

No. _____

E.D.

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
3. Schools of today are neglecting reading, writing, and arithmetic: the three R's.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
4. The pupil-teacher relationship is the relationship between a child who needs direction, guidance, and control and a teacher who is an expert supplying direction, guidance, and control.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |
5. Teachers, like university professors, should have academic freedom--freedom to teach what they think is right and best.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

No. _____

E.D.

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

6. The backbone of the school curriculum is subject matter; activities are useful mainly to facilitate the learning of subject matter.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

7. Teachers should encourage pupils to study and criticize our own and other economic systems and practices.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

8. The traditional moral standards of our culture should not just be accepted; they should be examined and tested in solving the present problems of students.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

No. _____

E.D.

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

9. Learning is experimental; the child should be taught to test alternatives before accepting any of them.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

10. The curriculum consists of subject matter to be learned and skills to be acquired.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

11. The true view of education is so arranging learning that the child gradually builds up a storehouse of knowledge that he can use in the future.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

No. _____

E.D.

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

12. One of the big difficulties with modern schools is that discipline is often sacrificed to the interests of children.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

13. The curriculum should be made up of an orderly sequence of subjects that teach to all students the best of our cultural heritage.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

14. Discipline should be governed by long-range interests and well-established standards.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

No. _____

E.D.

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

15. Education and educational institutions must be sources of social ideas; education must be a social program undergoing continual reconstruction.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

16. Right from the very first grade, teachers must teach the child at his own level and not at the level of the grade he is in.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answers?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

17. Children should be allowed more freedom than they usually get in the execution of learning activities.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

No. _____

E.D.

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

18. Children need and should have more supervision and discipline than they usually get.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

19. Learning is essentially a process of increasing one's store of information about the various fields of knowledge.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

20. In a democracy, teachers should help students understand not only the meaning of democracy but also the meaning of the ideologies of other political systems.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. agree |
| 2. Disagree | 4. Strongly agree |

No. _____

E.D.

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

APPENDIX A
Instrumentation

**A-3 Survey of Interpersonal
Values**

SURVEY OF INTERPERSONAL VALUES

By LEONARD V. GORDON

DIRECTIONS

In this booklet are statements representing things that people consider to be important to their way of life. These statements are grouped into sets of three. This is what you are asked to do:

Examine each set. Within each set, find the **one statement** of the three which represents what you consider to be **most important** to you. Blacken the space beside that statement in the column headed M (for **most**).

Next, examine the remaining two statements in the set. Decide which **one** of these statements represents what you consider to be **least important** to you. Blacken the space beside that statement in the column headed L (for **least**).

For every set you will mark **one statement** as representing what is **most important** to you, **one statement** as representing what is **least important** to you, and you will leave **one statement** unmarked.

Example

	M	L
To have a hot meal at noon	<input type="checkbox"/>	<input checked="" type="checkbox"/>
To get a good night's sleep	<input type="checkbox"/>	<input type="checkbox"/>
To get plenty of fresh air	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Suppose that you have examined the three statements in the example, and although all three of the statements may represent things that are important to you, you feel that "To get plenty of fresh air" is the **most important** to you. You would blacken the space in the column headed M (for **most**) beside the statement. Notice that this has been done in the example.

You would then examine the remaining two statements to decide which of these represents something that is **least important** to you. Suppose that "To have a hot meal at noon" is the **least important** to you. You would blacken the space in the column headed L (for **least**) next to this statement. Notice that this has been done in the example.

You would leave the remaining statement unmarked.

In some cases it may be difficult to decide which statement to mark. Make the best decision that you can. This is not a test; there are no right or wrong answers. Be sure to mark **only one M (most)** choice and **only one L (least)** choice in a set. Do not skip any sets. Answer every set. Turn this booklet over and begin.



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- To be free to do as I choose
To have others agree with me
To make friends with the unfortunate
- To be in a position of not having to follow orders
To follow rules and regulations closely
To have people notice what I do
- To hold an important job or office
To treat everyone with extreme kindness
To do what is accepted and proper
- To have people think of me as being important
To have complete personal freedom
To know that people are on my side
- To follow social standards of conduct
To have people interested in my well being
To take the lead in making group decisions
- To be able to do pretty much as I please
To be in charge of some important project
To work for the good of other people
- To associate with people who are well known
To attend strictly to the business at hand
To have a great deal of influence
- To be known by name to a great many people
To do things for other people
To work on my own without direction
- To follow a strict code of conduct
To be in a position of authority
To have people around who will encourage me
- To be friends with the friendless
To have people do good turns for me
To be known by people who are important
- To be the one who is in charge
To conform strictly to the rules
To have others show me that they like me
- To be able to live my life exactly as I wish
To do my duty
To have others treat me with understanding
- To be the leader of the group I'm in
To have people admire what I do
To be independent in my work
- To have people get considerably toward me
To have other people work under my direction
To spend my time doing things for others
- To be able to lead my own life
To contribute a great deal to charity
To have people make favorable remarks about me

Turn the page and go on.

	M	L	M	L
To be a person of influence	.....	.....	.....	.....
To be treated with kindness	.....	.....	.....	.....
To always maintain the highest moral standards	.....	.....	.....	.....
To be praised by other people	M	L	M	L
To be relatively unbound by social conventions	.....	.....	.....	.....
To work for the good of society	.....	.....	.....	.....
To have the affection of other people	M	L	M	L
To do things in the approved manner	.....	.....	.....	.....
To go around doing favors for other people	.....	.....	.....	.....
To be allowed to do whatever I want to do	M	L	M	L
To be regarded as the leader	.....	.....	.....	.....
To do what is socially correct	.....	.....	.....	.....
To have others approve of what I do	M	L	M	L
To make decisions for the group	.....	.....	.....	.....
To share my belongings with other people	.....	.....	.....	.....
To be free to come and go as I want to	M	L	M	L
To help the poor and needy	.....	.....	.....	.....
To show respect to my superiors	.....	.....	.....	.....
To be given compliments by other people	M	L	M	L
To be in a very responsible position	.....	.....	.....	.....
To do what is considered conventional	.....	.....	.....	.....
To be in charge of a group of people	M	L	M	L
To make all of my own decisions	.....	.....	.....	.....
To receive encouragement from others	.....	.....	.....	.....
To be looked up to by other people	M	L	M	L
To be quick in accepting others as friends	.....	.....	.....	.....
To direct others in their work	.....	.....	.....	.....
To be generous toward other people	M	L	M	L
To be my own boss	.....	.....	.....	.....
To have understanding friends	.....	.....	.....	.....
To be selected for a leadership position	M	L	M	L
To be treated as a person of some importance	.....	.....	.....	.....
To have things pretty much my own way	.....	.....	.....	.....
To have other people interested in me	M	L	M	L
To have proper and correct social manners	.....	.....	.....	.....
To be sympathetic with those who are in trouble	.....	.....	.....	.....
To be very popular with other people	M	L	M	L
To be free from having to obey rules	.....	.....	.....	.....
To be in a position to tell others what to do	M	L	M	L
To always do what is morally right	.....	.....	.....	.....
To go out of my way to help others	.....	.....	.....	.....
To have people willing to offer me a helping hand	M	L	M	L
To have people admire me	.....	.....	.....	.....
To always do the approved thing	.....	.....	.....	.....
To be able to leave things lying around if I wish	.....	.....	.....	.....

S	C	R	I	B	L	T

APPENDIX A
Instrumentation

A-4 Personal Questionnaire

No. _____

Location _____

Male _____

Group _____

Female _____

Date _____

PERSONAL QUESTIONNAIRE

This questionnaire has two parts to it. The first part has to do with your contacts with schools and education, and what you know about education. You may have had considerable contact with schools and education, or you may know a great deal about education. On the other hand, you may have had little or no contact with schools or education and may have never thought much about it at all.

For the purposes of this investigation the answers of all persons are important. If you know very little or nothing about schools or education your answers are important. If you know a great deal about them your answers are important.

The second part of the questionnaire has to do with personal information about you. Since the questionnaire is completely anonymous, you may answer all of the questions freely without any concern about being identified. It is important to the study to obtain your answer to every question.

PERSONAL QUESTIONNAIRE

Please read each question carefully and do not omit any questions. Please answer by circling the correct answer (or answers) or fill in the answer as requested.

SECTION 1: Experiences with Schools and Education

1. Below are listed several different kinds of schools or educational provisions. In respect to these various kinds or levels of education, which one have you had the most experience with, or do you have the most knowledge about? Please place the number of the group you know best in Box A, the number of the group you know next best in Box B, and the third best in Box C.

- | | |
|-------------------------------------|---|
| 1. Elementary school (grade school) | A. <input type="text"/>
(best) |
| 2. Secondary school (high school) | B. <input type="text"/>
(next best) |
| 3. College or university | C. <input type="text"/>
(third best) |
| 4. Other types (please specify) | |

2. The following questions have to do with the kinds of contacts you have had with schools or education. Please circle the number of each experience that applies to you. Be sure and circle the number of every experience that applies to you.

My father, mother, brother, sister, wife (husband) or child works in education (in any position; professional or non-professional) 1

Some other relative works in education 2

I have worked in education, as a teacher, administrator, counselor, volunteer, etc. 3

A friend of mine works in education. 4

A neighbor of mine works in education. 5

I have studied about schools and education through
reading, movies, lectures, or observations 6

I have read or heard a little about schools and
education. 7

I know little or nothing about education 8

Other (please specify) _____ 9

3. About how much have you worked in schools or educational
settings? Please circle the number of the one best answer.

Never. 1

Less than three months 2

Between three and six months 3

Between six months and one year. 4

Between one and three years. 5

Between three and five years 6

Between five and ten years 7

Over ten years 8

Over fifteen years 9

4. If you have ever worked in education, about what percent
of your income was derived from such work?

Less than 10%. 1

Between 10 and 25% 2

Between 25 and 50% 3

Between 50 and 75% 4

Between 75 and 100% 5

I have not worked in education 6

5. If you have ever worked in education how have you generally felt about it?

- I definitely have disliked it 1
- I have not liked it very much 2
- I have liked it somewhat. 3
- I have definitely enjoyed it. 4
- I have never had such an experience 5

6. If you have ever worked in education for personal gain (for example, for money or some other gain) what opportunities did you have (or do you have) to work at something else instead; that is, something else that was, or is, acceptable to you as a job?

- No other job was available. 1
- Other jobs available were not at all acceptable to me 2
- Other jobs available were not quite acceptable to me 3
- Other jobs available were fully acceptable to me. 4
- I don't know what other jobs were available or acceptable. 5
- I have had no work experience in education. . . . 6

No. _____

P.Q.

SECTION 2: Personal Information9. How old are you? (Write age in box)

10. Where were you mainly reared or "brought up" in your youth (that is up to age of 15 or 16)?

City 1

City suburb. 2

Country town 3

Country. 4

Other (please specify)_____ 5

11. Where have you (or the main bread winner in your family) been mainly employed during the past 3 years?

City 1

City suburb. 2

Country town 3

Country. 4

Other (please specify)_____ 5

12. Where have you mainly lived during the past 3 years?

City 1

City suburb. 2

Country town 3

Country. 4

Other (please specify)_____ 5

No. _____

P.Q.

13. What is your marital status?

- Married 1
- Single. 2
- Divorced. 3
- Widowed 4
- Separated 5

14. How many children do you have? (Please write number in box) 15. Please answer either A or B; whichever applies best to your present situation.

- a. If you are self-supporting, about what is your total yearly income before taxes (or, if you are married, the total yearly income in the family). Include extra income from any regular sources such as dividends, insurance, etc. Please write the total in the box.
- b. If you are not self-supporting (or, if you are married, if your family is not self-supporting) what is the approximate total yearly income before taxes of the persons who mainly provide your support (that is, parents, relatives, or others). Make the best estimate you can.

16. According to your answer to question 15, about how does your income compare with that of most people in your community?

- Much lower. 1
- Lower 2
- About the same. 3
- Higher. 4

No. _____

P.Q.

Much higher 5

No opinion. 6

17. How many brothers have you? (Please write number in box).

18. How many sisters have you? (Please write number in box).

19. About how does (or did) your father's income compare with that of most people?

Much lower. 1

Lower 2

About the same. 3

Higher 4

Much higher 5

No opinion. 6

20. What is your religion?

Catholic. 1

Protestant. 2

Jewish. 3

None. 4

Other 5

21. About how important is your religion to you in your daily life?

Not very important. 1

Fairly important. 2

Very important. 3

No. _____

P.Q.

22. During an "average" work day, you probably have occasion to talk and make contact with other adult persons where you are employed. Estimate about what percent of these contacts and conversations are with people you feel personally close to, whom you consider to be close friends, or that are relatives of yours.

None 1

Less than 10%. 2

Between 10 and 30% 3

Between 30 and 50% 4

Between 50 and 70% 5

Between 70 and 90% 6

More than 90%. 7

I do not usually talk or make contact with other adult persons where I am employed. 8

23. How important is it to you to work with people you feel personally close to?

Not at all important 1

Not very important 2

Fairly important 3

Very important 4

24. Now please consider all of the personal contacts you have with people when you are not at work. Would you estimate about what percent of your contacts apart from working hours are spent with people whom you know because of your job; that is who work at the same job, trade or that you otherwise contact in the pursuit of your job.

None 1

Less than 10%. 2

No. _____

P.Q.

Between 10 and 30% 3

Between 30 and 50%. 4

Between 50 and 70%. 5

Between 70 and 90%. 6

More than 90% 7

25. People have different ideas about "social class." Which of the following possibilities best agrees with your thinking about how many social classes there probably are?

None or one 1

Two classes; lower and upper. 2

Three classes; lower, middle, and upper 3

More than three classes 4

No opinion. 5

26. Which social class do you believe you are in?

Lower 1

Middle. 2

Upper 3

Other (please specify) _____ 4

No opinion. 5

27. Which social class do you believe your father is (or was) in?

Lower 1

Middle. 2

Upper 3

No. _____	P.Q.
Other (please specify) _____	4
No opinion.	5
28. About how much education do you have?	
3 years of school or less	1
6 years of school or less	2
9 years of school or less	3
12 years of school or less.	4
Some college or university.	5
A college or university degree.	6
Some graduate work beyond the first degree.	7
One or more advanced degrees.	8
Other (please note no. of years of study or diploma obtained)	9
29. About how does your education compare with that of most people?	
Much less than most	1
Less than most.	2
About average	3
More than most.	4
Much more than most	5
No opinion	6
30. About how does (or did) your father's education compare with that of most people?	
Much less than most	1

No. _____ P.Q.

Less than most 2

About average. 3

More than most 4

Much more than most. 5

No opinion 6

31. What type of living arrangement do you have?

Rent a house 1

Rent an apartment. 2

Rent a room (meals in a restaurant, etc.). 3

Purchase room and board (rooming house, etc.). . . 4

Own an apartment 5

Own a house 6

Other (please specify) _____ 7

32. Please answer either A or B

A. If you are renting the place where you live, about how much money per month do you pay for rent?

B. If you own the place where you live (house, apartment, or other), about how much money per month do you believe you could rent it for?
(Please write amount in box)

33. In every community each group (for example, schools, businessmen, labor, the local government) has a different job to do for the community. In your community, would you say that the schools are doing an excellent, good, fair or poor job? How about businessmen? Labor? The local government? The doctors and hospitals? The church? (Please place an X in the appropriate column to indicate how you feel that each is doing its job.)

No. _____

P.Q. _____

Please answer for each group.

	Group	Excellent	Good	Fair	Poor	Don't Know
1.	Elementary schools					
2.	Secondary Schools					
3.	Universities					
4.	Businessmen					
5.	Labor					
6.	Local government					
7.	Health services (Doctors & Hospitals)					
8.	Churches					

34. How long have you lived in your present community?

Less than 1 year 1

From 1 to 2 years. 2

From 3 to 6 years. 3

From 7 to 10 years 4

Over 10 years 5

35. Have you changed your residency during the past 2 years?
(Please circle the correct number.)

Yes 1

No 2

36. Have you changed your employment during the past 2
years? (Please circle the correct number.)

Yes 1

No 2

No. _____

P.Q.

37. About how many times have you changed residency during the past 10 years? (Please circle the correct number.)

None 1
1 time 2
2 - 3 times. 3
4 - 6 times. 4
7 - 10 times 5
Over 10 times. 6

38. About how many times have you changed jobs during the past 10 years? (Please circle the correct number.)

None 1
1 time 2
2 - 3 times. 3
4 - 6 times. 4
7 - 10 times 5
Over 10 times. 6

39. Please state your occupation. Briefly state the title or name of your job and the nature of your work.

No. _____

P.Q.

40. In respect to your religion, about to what extent do you observe the rules and regulations of your religion? (Please circle the correct number.)

Seldom 1
 Sometimes. 2
 Usually. 3
 Almost always. 4

41. Health experts say adding certain chemicals to drinking water results in less decay in people's teeth. If you could add these chemicals to your water, with little cost to you, would you be willing to have the chemicals added? (Please circle the correct number.)

Yes 1
 Maybe. 2
 Probably not 3
 No 4
 Don't know 5

42. Some people feel that in bringing up children, new ways and methods should be tried whenever possible. Others feel that trying out new methods is dangerous. What is your feeling on the following statement?

"New methods of raising children should be tried out whenever possible."

Strongly agree 1
 Slightly agree 2
 Don't know 3
 Slightly disagree. 4
 Strongly disagree. 5

No. _____

P.Q.

43. Family planning on birth control has been discussed by many people. What is your feeling about a married couple practicing birth control? Do you think they are doing something good or bad? If you had to decide, would you say they are doing wrong or rather, that they are doing right?

It is always wrong 1

It is usually wrong. 2

It is probably all right 3

It is always right 4

44. Running a village, city, town, or any governmental organization is an important job. What is your feeling on the following statement?

"Political leaders should be changed regularly, even if they are doing a good job.

Strongly agree 1

Slightly agree 2

Don't know 3

Slightly disagree. 4

Strongly disagree. 5

45. Some people believe that more federal and local government income should be used for education even if doing so means raising the amount you pay in taxes. What are your feelings on this?

Strongly agree 1

Slightly agree 2

Don't know 3

Slightly disagree. 4

Strongly disagree. 5

No. _____

P.Q.

46. Some people are more set in their ways than others.
How would you rate yourself?

I find it very easy to change my ways 1

I find it somewhat easy to change my ways 2

I find it slightly difficult to change. 3

I find it very difficult to change 4

47. I find it easier to follow rules than to do things on
my own.

Agree strongly 1

Agree slightly 2

Don't know 3

Disagree slightly 4

Disagree strongly 5

48. I like the kind of work that lets me do things about
the same way from one week to the next.

Agree strongly. 1

Agree slightly. 2

Don't know 3

Disagree slightly 4

Disagree strongly 5

49. A good son will try to find work that keeps him near
his parents even though it means giving up a good job in
another part of the country?

Agree strongly. 1

Agree slightly. 2

No. _____ P.Q.

Don't know 3

Disagree slightly. 4

Disagree strongly. 5

50. We should be as helpful to people we don't know as we are to our friends.

Agree strongly 1

Agree slightly 2

Don't know 3

Disagree slightly. 4

Disagree strongly. 5

51. Planning only makes a person unhappy because your plans hardly ever work out anyway.

Agree strongly 1

Agree slightly 2

Don't know 3

Disagree slightly. 4

Disagree strongly. 5

52. Which of the following requisites do you consider most important to make your life more happy and satisfactory?

Nothing 1

More money 2

More friends 3

Better job 4

No. _____

P.Q.

Good health 5

Others (specify) _____ 6

53. What do you think you can do to make this possible?

Nothing _____

APPENDIX A
Instrumentation

**A-5 Attitudes Toward
Handicapped Persons**

No. _____

Location _____

Male _____

Group _____

Female _____

Date _____

HANDICAPPED PERSONS SCALE

Instructions: Given below are 20 statements of opinion about physically handicapped persons. We all think differently about persons with physical handicaps. Here you may express how you think by choosing one of the four possible answers following each statement. Please mark your answer by placing a circle around the number in front of the answer you select.

You are also asked to indicate for each statement how strongly you feel about your marking of the statement. Please mark this part of your answer in the same way as before, by placing a circle around the number in front of the answer you select.

1. Parents of handicapped children should be less strict than other parents.

1. Strongly disagree

3. Agree

2. Disagree

4. Strongly agree

About how strongly do you feel about your answer?

1. Not strongly at all

3. Fairly strongly

2. Not very strongly

4. Very strongly

2. Physically handicapped persons are just as intelligent as non-handicapped ones.

1. Strongly disagree

3. Agree

2. Disagree

4. Strongly agree

No. _____

ATDP

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

3. Handicapped people are usually easier to get along with than other people.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

4. Most physically handicapped people feel sorry for themselves.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

5. Physically handicapped people are the same as anyone else.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

No. _____

ATDP

6. There shouldn't be special schools for physically handicapped children.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

7. It would be best for physically handicapped persons to live and work in special communities.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

8. It is up to the government to take care of physically handicapped persons.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

No. _____

ATDP

9. Most physically handicapped people worry a great deal.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

10. Physically handicapped people should not be expected to meet the same standards as non-handicapped people.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

11. Physically handicapped people are as happy as non-handicapped ones.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

12. Severely physically handicapped people are no harder to get along with than those with minor handicaps.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

No. _____

ATDP

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

13. It is almost impossible for a handicapped person to lead a normal life.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

14. You should not expect too much from physically handicapped people.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

15. Physically handicapped people tend to keep to themselves much of the time.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

No. _____

ATDP

16. Physically handicapped people are more easily upset than non-handicapped people.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

17. Physically handicapped persons cannot have a normal social life.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

18. Most physically handicapped people feel that they are not as good as other people.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

19. You have to be careful of what you say when you are with physically handicapped people.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

No. _____

ATDP

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

20. Physically handicapped people are often grouchy.

- | | |
|----------------------|-------------------|
| 1. Strongly disagree | 3. Agree |
| 2. Disagree | 4. Strongly agree |

About how strongly do you feel about your answer?

- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

APPENDIX A
Instrumentation

A-6 Personal Questionnaire: HP

No. _____

Location _____

Male _____

Group _____

Female _____

Date _____

PERSONAL QUESTIONNAIRE: HP

This questionnaire deals with your contacts with physically handicapped persons, and what you know about them. Perhaps you have had much contact with physically handicapped persons, or you may have studied about them. On the other hand, you may have had little or no contact with physically handicapped persons, and may have never thought much about them at all.

For the purposes of this investigation, the answers of all persons are important, so even if you know very little or nothing about physically handicapped persons your answers are important.

No. _____

PERSONAL QUESTIONNAIRE

Please read each question carefully and do not omit any questions. Please answer by circling the correct answer (or answers) or fill in the answer as requested.

SECTION 1: Experiences with Handicapped Persons

1. Some physically handicapping conditions are listed below. In respect to these various handicaps, which have you had the most actual experience with. Please answer by circling the number of the group you select. Circle only one.

- | | |
|--------------------------------|---|
| 1. blind | 6. disfigured (such as severe burns or scars on face) |
| 2. partially blind | |
| 3. deaf (and deaf-mute) | 7. spastic (or cerebral palsy) |
| 4. partially deaf | |
| 5. crippled or amputated limbs | 8. speech disorders |
| | 9. none |

2. Which other groups have you also had some experience with? Please circle the number of each additional group with which you have had some experience.

- | | |
|--------------------------------|---|
| 1. blind | 6. disfigured (such as severe burns or scars on face) |
| 2. partially blind | |
| 3. deaf (and deaf-mute) | 7. spastic (or cerebral palsy) |
| 4. partially deal | |
| 5. crippled or amputated limbs | 8. speech disorders |
| | 9. none |

No. _____

If on the preceding question you indicated that you have had no personal experience with physically handicapped persons (by circling response No. 9,) please skip questions #3 through #8. If you indicate that you have had experience with one or more of the above handicapping conditions, please answer questions #3 through #8.

3. The following questions have to do with the kinds of experiences you have had with physically handicapped persons. Please circle the number of each experience that applies to you. If more than one experience applies, please circle a number for each experience that applies.

My father, mother, brother, sister, wife (husband) or child is physically handicapped 1

Some other relative is physically handicapped. 2

I have personally worked with physically handicapped persons, as a teacher, counselor, volunteer, child care, etc.. 3

A friend is physically handicapped 4

I have studied about physically handicapped persons through reading, movies, lectures, or observations 5

I have read or heard a little about physically handicapped persons. 6

I, myself, have a physical handicap. (Briefly, please indicate the kind of handicap) _____

_____ 7

4. Considering all of the times you have talked, worked, or in some other way had personal contact with physically handicapped persons, about how many times has it been altogether? Please circle the number of the single best answer.

No. _____

- Less than 10 occasions 1
- Between 10 and 50 occasions 2
- Between 50 and 100 occasions. 3
- Between 100 and 500 occasions 4
- More than 500 occasions 5

5. When you have been in contact with physically handicapped people, how easy for you, in general, would it have been to have avoided being with these handicapped persons?

I could generally have avoided these personal contacts only at great cost or difficulty . . . 1

I could generally have avoided these personal contacts only with considerable difficulty. . . 2

I could generally have avoided these personal contacts, but with some inconvenience 3

I could generally have avoided these personal contacts without any difficulty or inconvenience 4

6. During your contact with physically handicapped persons, did you gain materially in any way through contacts, such as being paid, or gaining academic credit, or some such gain?

Yes, I have been paid for working with handicapped persons 1

Yes, I have received academic credit or other material gain 2

No, I have never received money, credit, or any other material gain 3

No. _____

7. If you have never been paid for working with handicapped persons go on to the next question. If you have been paid, about what percent of your income was derived from contact with physically handicapped persons during the actual period when working with them?

Less than 10% 1

Between 10 and 25%. 2

Between 25 and 50%. 3

Between 50 and 75%. 4

More than 75% 5

8. How have you generally felt about your experiences with handicapped persons?

I definitely have disliked it 1

I have not liked it very much 2

I have liked it somewhat 3

I have definitely enjoyed it. 4

<p>The following questions should be answered by all persons, regardless of whether or not they have had any personal contact with persons who are physically handicapped.</p>
--

9. Have you had any experience with mentally retarded persons? Considering all of the times you have talked, worked, or in some other way had personal contact with mentally retarded persons, about how many times has it been altogether? Please circle the number of the single best answer.

Less than 10 occasions 1

No. _____

Between 10 and 50 occasions 2

Between 50 and 100 occasions. 3

Between 100 and 500 occasions 4

More than 500 occasions 5

10. Have you had any experience with emotionally ill persons? Considering all of the times you have talked, worked, or in some other way had personal contact with emotionally ill persons, about how many times has it been altogether? Please circle the number of the single best answer.

Less than 10 occasions 1

Between 10 and 50 occasions 2

Between 50 and 100 occasions. 3

Between 100 and 500 occasions 4

More than 500 occasions 5

APPENDIX B

Variables, Administration Procedures, Code Book, and Code Forms

- 1. Basic Variables of the Study**
- 2. Administration Procedures**
- 3. Code Book**
- 4. Data Transcription Sheet**
- 5. FCC I and II Variable-
Computer Print-Out Code**

APPENDIX B

B-1 Basic Variables of the Study

BASIC VARIABLES - MICHIGAN

A. Attitudes Toward Education

- (1) Traditional attitudes, Items 3,4,6,10,11,12,13,14,
18,19, - Content
Raw score total
Adjusted total scores (dichotomized)
- (2) Traditional attitudes, Items 3,4,6,10,11,12,13,14,
18,19, - Intensity
Raw score total
Adjusted total score (dichotomized)
- (3) Progressive attitudes, Items 1,2,5,7,8,9,15,16,17,
20, - Content
Raw score total
Adjusted total score (dichotomized)
- (4) Progressive attitudes, Items 1,2,5,7,8,9,15,16,
17,20, - Intensity
Raw Score total
Adjusted total score (dichotomized)
- (5) Q'aire, Item 5 (enjoyment of contact)

B. Experiences with Education

- (1) Levels of education experienced
Q'aire, Item 1 (most contact)
Q'aire, Item 1 (additional contacts-no. of)
- (2) Type of contact with education
Q'aire, Item 2
- (3) Degree of contact (work) with education
Q'aire, Item 3
- (4) Personal gain through working in education
Q'aire, Item 4 (% of income)
- (5) Alternative opportunities available
Q'aire, Item 6 (refers to other possible employment)

C. Aid to Education - Financial (Q'aire)

Item 45 (local and federal)

D. Interpersonal Values - Gordon Scale

(1) R scores (yields comparative value score) Recognition

(2) B scores (yields asset value score) Benevolence

(3) S scores - Support

(4) C scores - Conformity

(5) I scores - Independence

(6) L scores - Leadership

E. Demographic S.E.S., Other Control Data (All from Q'aire -
if not excepted)

(1) Education Item 28

(2) Occupation - current Item 39

(3) Income and rental Item 15 (S.E. Class) Item 32
(income)

(4) Age Item 9

(5) Sex Front sheet of questionnaire

(6) Marital status Item 13

(7) Number of children Item 14

(8) Size of family Item 17 (bro.) Item 8 (sis.)

(9) Religious affiliation Item 20

(10) Home ownership Item 31

(11) Mobility Items 34, 35, 37 - residency
Items 36, 38 - occupational

- (12) Rural-Urban Items 10, 11, 12
- (13) Employment status - current Item 39 (Employed, unemployed, housewife, etc.)

F. Satisfaction with Institutions Questionnaire, Card 3

- (1) Satisfaction with elementary schools
Item 33-1
- (2) Satisfaction with secondary schools
Item 33-2
- (3) Satisfaction with universities
Item 33-3
- (4) Satisfaction with business
Item 33-4
- (5) Satisfaction with labor
Item 33-5
- (6) Satisfaction with local government
Item 33-6
- (7) Satisfaction with health services
Item 33-7
- (8) Satisfaction with churches
Item 33-8

G. Self-Statements Questionnaire, Card

- (1) Comparative income status - self Item 16
- (2) Comparative income - father Item 19
- (3) Number of social classes Item 25
- (4) Comparative social class - self Item 26
- (5) Comparative social class - father Item 27

- (6) Comparative education - self Item 29
- (7) Comparative education - father Item 30

H. Religiosity Questionnaire, Card

- (1) Perceived importance Item 21
- (2) Perceived norm conformity Item 40
- (3) Adherence Item 20

I. Personalism Questionnaire, Card

- (1) Orientation toward job personalism
 - (a) Statement of extent of personalism on job Item 22
 - (b) Perceived importance of personal relations Item 23
- (2) Diffusion of personal relationships
Percent of job-social overlap Item 24
- (3) Familialism Item 49 (Son's work)
- (4) Other-orientation Altruism Item 50 (Toward friends
vs. others)

J. Attitudes Toward Change Questionnaire, Card

- (1) Health practices (water) Item 41
- (2) Child-rearing practices Item 42
- (3) Birth control practices Item 43
- (4) Political leadership change Item 44
- (5) Self-Conception
 - Item 46 (Perceived self-rigidity)
 - Item 47 (Adherence to roles)
 - Item 48 (Job regularity and rigidity)

- (6) Future orientation
 - Item 51 (Planning)
 - Item 52 (Requisites for happiness)
 - Item 53 (Achievement of happiness)

K. Attitudes Toward Handicapped Persons

- (1) Handicapped Persons Scale Items 1-20 (content)
 - Raw score total
 - Adjusted total score (dichotomized)
- (2) Handicapped Persons Scale, Items 1-20 (intensity)
 - Raw score total
 - Adjusted total score (dichotomized)
- (3) Personal Questionnaire: HP, Item 8 (enjoyment of contact)

L. Contact with Handicapped Persons

- (1) Kinds of handicapped persons experienced
 - P.Q.-HP, Item 1 Most contact
 - P.Q.-HP, Item 2 Additional contacts
- (2) Type of relationship with handicapped
 - P.Q.-HP, Item 3
- (3) Frequency of contact with physically handicapped
 - P.Q.-HP, Item 4
- (4) Ease of avoidance of contacts with handicapped
 - P.Q.-HP, Item 5
- (5) Personal gain through working with handicapped persons
 - P.Q.-HP, Item 6 (experienced gain)
 - P.Q.-HP, Item 7 (% of income)
- (6) Frequency of contact with mentally retarded
 - P.Q.-HP, Item 9
- (7) Frequency of contact with emotionally ill
 - P.Q.-HP, Item 10

APPENDIX B

B-2 Administrative Procedures

PROCEDURES FOR ADMINISTRATION:

CROSS-CULTURAL ATTITUDE STUDY

John E. Jordan
Michigan State University
East Lansing, Michigan
December, 1964

The specific instructions will vary in detail from nation to nation. However, the following outline is presented on the basis of my experience thus far with the questionnaires and attitude scales.

1. Arrange for a meeting room and/or place. The respondents should have a table (or similar surface) on which to write and ample room between respondents (in group administration) to minimize influencing each other.
2. After introducing oneself (or being introduced), state briefly the following kind of rationale for the study:

"This is an international study of attitudes toward education; part of it deals with education in general and part of it deals with the education of handicapped persons. Each part is clearly stated. Remember, in a study like this, there are no right or wrong answers to the attitude questions. We want you to answer how you feel about certain things. Therefore, we do not want your name on the questionnaire. Please answer quickly, with your first idea first, and do not spend a lot of time thinking about each item.

Remember this is an international study and all the people in the other countries will be answering in the same manner. If there is no answer that exactly fits what you would like to answer, please choose the alternative nearest to your desired answer.

Please answer all items.

If you have any questions as you proceed, please raise your hand and we will come to you and discuss it individually so as not to disturb the other people. When we have all completed the questionnaires, I will be glad to discuss the study in more detail if you desire. Thank you very much for taking time to cooperate in the study."

3. Distribute the page of definitions.

"We will now distribute to you a page of definitions of certain handicapping conditions which will be referred to in some of the questionnaires. We will all take a few minutes to read these so we will all have the same idea about the same words. You may refer to these later if you so desire.

Also, we want you to put a number in the upper left hand corner of the page like this (show them what you mean). Since we do not want you to put your name on the questionnaire, you will use this number. In this manner no one will know your answers. We must have your number and group (special education, teacher, business, etc.) on each questionnaire so we can put all the answers of one person together at the end."

Here the respondents "number off" and see that no two persons have the same number. Remember if two people in a group have the same number, the data cannot be analyzed.

4. Distribute the attitude scales and questionnaires in the following order. In group administration be sure to pass out only one instrument at a time.

Order of Administration of Instruments

1. Page of definitions
2. Education Scale

3. Survey of Interpersonal Values
 4. Personal Questionnaire
 5. Handicapped Persons Scale
 6. Personal Questionnaire: HP
5. Distribute the Education Scale. Have the respondent fill out data on the top of scale: (1) Number, (2) Sex, (3) Location, (4) Group, and (5) Date. Either instruct the respondents to read silently the instructions or the administrator may read them to the group; this is left to each country to do in the manner they consider most appropriate. Our experience shows that if the instructions are well understood on this first instrument, the other instruments are easily understood.

When the respondents have completed the Education Scale, collect them and distribute the next one as indicated above in Point Number Four. Proceed in a similar manner until all five instruments have been completed.

6. If situations arise where the instruments are left with the respondent (i.e., either in an office or to take home), try to impress on them the order in which to take them (e.g., number them 1-2-3-4-5 in the upper right hand corner) and not to look at them ahead of time.

Do not leave instruments with respondents except when absolutely necessary and in such cases mark on them later to indicate they were given in this manner.

7. Respondent identification. See discussion under Points Numbered 3 and 6 above. Remember we need a minimum of 50 persons per each of the four groups: (1) special education, (2) teacher-primary and secondary, (3) workers - blue and white collar, and (4) employers-business, commerce, industry. We would prefer to have more so secure as many as you can conveniently locate up to 100 per group.

Each of these respondents must fill out all five instruments, using the same respondent number and group. If either the respondent number or group is omitted or duplicated, the data cannot be collated for data analysis!

8. When you have secured enough completed sets of instruments for a "usual size" mailing package in your country, please mail to me rather than waiting to send all of them at one time. In this manner I can have the data scored and tabulated for computer processing in an orderly manner. If I receive all the data at one time, it will be difficult to hire assistants here at the university on any regular basis.

Each time you mail a package of data, you should send me a letter describing it so I can keep records.

APPENDIX B

B-3 Code Book

CODE BOOK

ATTITUDES TOWARD THE EDUCATION OF HANDICAPPED AND NON-HANDICAPPED PERSONS: A CROSS-CULTURAL STUDY

MICHIGAN STUDY

John E. Jordan
College of Education
Michigan State University
December 28, 1964

INSTRUCTIONS FOR THE USE OF THIS CODE BOOK

1. Code 0 or 00 will always mean Not Applicable or Nothing, except as noted.
2. Code 9 or 99 will mean there was No Information or the Respondent did not answer, unless otherwise stated or impossible to use.
3. Code 8 or 88 will always mean Don't Know unless otherwise indicated, or if it is impossible to use due to the type of question.
4. In each case in the following pages the column to the left contains the column number of the IBM card; the second column contains the question number from the questionnaire; the third column (item detail) contains an abbreviated form of the item; and the fourth column contains the code within each column of the IBM card with an explanation of the code. The fifth column (recode) specifies those items which should be checked for recoding after the item count is finished; i.e., after all data is key punched, run the data through the M.S.U. computer to determine the patterns of response alternatives to a question. This will indicate if regrouping, etc. need to be considered for the item.
5. Coder instructions always follow a line across the page and are clearly indicated.
6. In some cases when codes are equal to others already used, they are not repeated each time, but reference is made to a previous code or the immediately previous code with "same."

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
1,2,3	Nation and Location	United States 001 - Mich., Mt. Pleasant 002 - Mich., Cadillac 003 - Mich., Ann Arbor 004 - Mich., Port Huron 005 - Mich., Lansing 006 - Mich., Waldenwoods 007 - Mich., Flint 008 - Mich., Misc., Kal., Mid. Latin America 101 - Costa Rica 102 - Colombia 103 - Peru 104 - Argentina 105 - Mexico 106 - Surinam Europe 201 - England 202 - Holland 203 - Belgium 204 - France 205 - Yugoslavia 206 - Denmark Asia 301 - India 302 - Japan Africa 401 - Kenya 402 - Rhodesia 403 - South Africa	
4,5	Group Number	01 - 99	
6,7	Respondent Number	01 - 99	
8	Sex of Respondent	1 - Masculine 2 - Feminine 3 - No Information	

CARD 1

Page 1-2

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
9	Occupational Recode (General)	0 - Code 01 - 09, Rehab., Spec. Ed. 1 - Code 10 - 19, Education 2 - Code 20 - 45, Professional Business, Medical 3 - Code 50 - 86, White Collar, Blue Collar, Laborer	
10	Occupational Recode (Mader)	1 - Teacher, Educable Retarded, (Type A) and Type C 2 - Teacher, Trainable Retarded, (Type B) 3 - Teacher, Hearing 4 - Teacher, Vision 5 - Speech Correction 6 - Visiting Teacher (Also Soc. Worker) 7 - Diagnostician 8 - Other (Professors, Supts., administrators, etc.)	
11,12	Deck or Card Number	01	
13,14	Project Director	01 - Felty: Costa Rica 02 - Friesen: Colombia and Peru 03 - Krieder: Europe 04 - Mader: Michigan 05 - Jordan: Mt. Pleasant, Mich. 06 - Dickie: Kansas 07 - Sinha: Ohio	
15,16	Day of Adminis- tration (Use the actual day)	1 to 31	
17,18	Month of Adminis- tration	01 - January 02 - February 03 - March . .	

CARD 1

Page 1-3

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
	Month of Administration	10 - October 11 - November 12 - December	
19,20	Year of Administration	64 - 1964 65 - 1965 66 - 1966 . . 70 - 1970	
21	Type of Administration	1 - Group 2 - Self-administered 3 - Interview, individual 9 - No information	
22,23	Occupation of Respondent*	(01-09, Rehab & Spec. Ed.) 01 - All administrative persons, public & private schools or agencies 02 - Teachers, elem. & secondary academic and vocational 03 - School Special Services (Psych., soc. work, speech, etc.) 04 - University teachers, professors, researchers, specialists, etc. 05 - Medical (Doctors, Dentists, etc.) 06 - Other professional (Psych., Soc. worker, Speech, etc., not primarily in public or private schools) 07 - Para-medical (Nurse, O.T., R.T., P.T., etc.) 08 - Unskilled Help (Hospital aide, janitor, any non-prof., non-tech. role) 09 - Other	

CARD 1

Page 1-4

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
22,23	Occupation of Respondent* (Continued)	<p>(10-19, Educational personnel other than rehab. & spec. ed.)</p> <p>10 - Elementary teachers (include elem. v.p.'s, counselors, etc.)</p> <p>11 - Secondary teachers</p> <p>12 - Guidance & personnel workers (psych., soc. work, counselor if not elementary)</p> <p>13 - Other special services (Speech, spec. teacher, audiometric, etc.)</p> <p>14 - Administrative (elem., sec., central office <u>adm.</u>, including elem., principal, sec. v.p. & prin., etc., if non-teach.)</p> <p>15 - University teachers, professors, researchers, specialists, etc.</p> <p>16 - 19 Open</p> <p>(20 - 25, Medical, other than rehab. & spec. ed.)</p> <p>20 - General practitioners</p> <p>21 - Surgeons</p> <p>22 - Psychiatrists or psychoanalysts</p> <p>23 - Dentists</p> <p>24 - All other medical specialties</p> <p>25 - Open</p> <p>26 - Tech. & Prof.: Nurse, O.T., P.T., R.T., Audio, etc.</p> <p>27 - Non-tech. & non-prof.: aide, janitor, attendant, etc.</p> <p>28 - 29 Open</p> <p>(30 - 39, Professional and Technical, not Spec. Ed. & Rehab. or Medical or Educ.)</p> <p>30 - Engineers (degrees): civil, electrical, mechanical, etc.</p>	

CARD 1

Page 1-5

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
22,23	Occupation of Respon- dent* (Con- tinued)	31 - Lawyers, attorneys, public accountants 32 - Ministers, clergymen 33 - Musicians 34 - Clinical psychologist 35 - Researchers, scientists, not primarily in education 36 - Social workers, etc. 37 - 39 Other (40 - 45, Business and Industry, Managers, officials, prop.'s) 40 - Gov't and other bureaucratic officials: public adminis- trators and officers, union officials, stage inspectors, public utility, telephone officials, etc. 41 - Manufacturing, industrial officials, exec's, etc. 42 - Non-mfg., service, industry: bankers, brokers, insurance, real estate 43 - Retail trades: food, clothing, furniture, gasoline, vehicle sales, etc. 44 - General: i.e., manager, executive, etc., no other qualifications 45 - Open (46 - 49, Farm owners, operators and managers of large farms, e.g., heavy equipment and/or many empl.) 46 - Farm owner 47 - Farm operator (renter) 48 - Farm manager 49 - Open	

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
22,23	Occupation of respondent* (Continued)	<p>(50 - 59, White Collar: office, clerical, etc.)</p> <p>50 - Clerical & similar: tellers, bookkeepers, cashiers, secretaries, shipping clerks, attendants, telephone operators, library asst's, mail clerks and carriers, file clerks, etc.</p> <p>51 - Sales workers: advertising, sales clerks, all mfg. wholesale, retail and other</p> <p>52 - Small shopkeeper or dealer</p> <p>53 - 59 Open</p> <p>(60 - 69, Blue Collar: craftsmen, foremen, and kindred work)</p> <p>60 - Craftsmen: carpenters, bakers, electricians, plumbers, machinists, tailors, toolmakers, etc.</p> <p>61 - Foremen: all construction, mfg., transportation and communication, and other industries</p> <p>62 - Servicemen: telegraph, telephone, etc.</p> <p>63 - Mechanics and repairmen</p> <p>64 - Shoemakers, roofers, painters, and plasterers</p> <p>65 - Merchant marine, sailors (non-military)</p> <p>66 - Bus and cab drivers, motormen, deliverymen, chauffeurs, truck and tractor drivers</p> <p>67 - Operatives of all other mech. equipment (machine, vehicle, misc. mfg.)</p>	

CARD 1

Page 1-7

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
22,23	Occupation of respondent* (Continued)	68 - 69 Open	
		(70 - 74, Service and Private Household workers)	
		70 - Private household: laundress, housekeeper, cook	
		71 - Firemen and policemen, sheriffs, and bailiffs	
		72 - Attendants, professional and personal (valet, masseur, misc. mfg.)	
		73 - Misc. attendants and services: hospital attendants, bootblacks, cooks	
		74 - Open	
		(75 - 79, Military Personnel)	
		75 - Ranking officers, all services (Navy Commander and up, Army and Marines Colonel and up)	
		76 - Junior Officers, Army and Air	
		77 - Junior Officers, Navy and Marines	
		78 - Non-commissioned personnel, Army and Air	
		79 - Non-commissioned personnel, Navy and Marines	
		(80 - 86, Laborers)	
		80 - Small farm owners, renters, and farm laborers (small farm has no heavy equipment, provides minimal income and substance, employs 3 or less persons, full or part-time, except for migrant help)	

CARD 1

Page 1-8

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
22,23	Occupation of Respondent* (Continued)	81 - Non-mfg., non-industrial: fishermen, hunters, lumbermen, miners, gardeners, teamsters, garage laborers, etc.	
		82 - Manufacturing of durable goods: wood, clay, stone (stonecutter), metal, glass, plastic, machinery, of all kinds	
		83 - Mfg. of non-durable goods: food (bakery, beverages, etc.) tobacco, clothing, cloth, paper, printing, chemicals, rubber, leather, etc.	
		84 - Non-mfg. industries: railroad, construction, transportation, workers, etc.	
		85 - 86 Open	
		87 - Persons that haven't worked, such as housewives, students, or others who have never had a regular occupation.	
		88 - Don't know	
		99 - No information, no answer, refusal	

* Instructions for Coder: OCCUPATION, COLUMNS 22-23.

Coding information is derived from two sources:

1. Occupational description of groups as listed on the administrator's summary sheet.
2. Personal statements by the respondents in Question 39 of the questionnaire. Question 39 is the primary source of information. If vague, incomplete, or otherwise unscorable, use summary sheet as supplementary data or score entirely from summary sheet.

CARD 1

Page 1-9

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
24	Current Employment Status*	1 - Employed or Self-employed 2 - Retired 3 - Temporarily out of work 4 - Housewife, but formerly employed 5 - Unable to work (other than retired or housewife) but formerly employed 6 - Student or persons trained for employment but not working for various reasons 9 - No Information	

* Instructions for Coder: EMPLOYMENT STATUS, COLUMN 24.
Code from questionnaire Question 39, if person clearly states employment status. If no employment stated, and no indication with certainty from administrator's summary sheet that person is part of an employed group, score 9.

25 1 All questions in 1 - 1, strongly disagree
thru thru handicapped 2 - 2, disagree
44 20 persons scale 3 - 3, agree
are to be scored 4 - 4, strongly agree
from raw data.
See instructions
below.*

* Instructions for Coder: HANDICAPPED PERSONS SCALE SCORING, COLUMNS 25-44.

NOTE: CERTAIN STEPS AND PROCEDURES ARE THE SAME FOR THE EDUCATION SCALE AS FOR THE HANDICAPPED PERSONS SCALE. THESE PROCEDURES WILL BE WRITTEN IN CAPITAL LETTERS.

**1. Reverse the content response numbering for the Handicapped Persons Scale (NOT the intensity response number) for items 2, 5, 6, 11, and 12, as follows:

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
---------------------	--------------------	-------------	---------------

	The number of response <u>1</u> is changed to <u>4</u> and scored directly on data sheets.	<u>2</u>	<u>3</u>
		<u>3</u>	<u>2</u>
		<u>4</u>	<u>1</u>

2. Special instructions for NO RESPONSE. Count the number of NO RESPONSE items. If more than 6 occur, do not score respondent for this scale. If more than 3 occur in sequence, do not score respondent for this scale. If there are 6 or less in total, and 3 or less in sequence, the NO RESPONSE statement is to be scored either 1 or 2 by the random procedure of coin flipping.

If a head is obtained, the score assigned will be 1.

If a tail is obtained, the score assigned will be 2.

3. TOTAL THE RAW SCORES FOR EACH RESPONDENT AND WRITE THE TOTALS ON THE TRANSCRIPTION DATA SHEET DIRECTLY BELOW THE COLUMN TOTALED.*

* By this procedure, the possible range of scores is from 0 to 80. Doubling the obtained score will approximate scores obtained by the method of Yuker, et al, (1960, p. 10)

4. INTENSITY RAW SCORES FOR EACH STATEMENT ARE TO BE SCORED ON THE DATA SHEET EXACTLY AS THEY APPEAR ON THE QUESTIONNAIRE; i.e., IF 1 IS CIRCLED IN THE INTENSITY SECTION OF QUESTION ONE, SCORE IT AS 1 ON THE CORRESPONDING SECTION OF THE DATA SHEET.
5. Dichotomization Procedures (i.e., for MSA - applies to all scales).
 - a) Using raw data scores (i.e., the actual number circled by the respondent) via the Hafterson CUT Program on the CDC 3600, determine the point of least error for each item on the content scales.

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
---------------------	--------------------	-------------	---------------

- b) Using this point (i.e., between 1 and 2, or between 2 and 3, or between 3 and 4) rescore the items, via recode cards, as 0, 1 via the Hafterson MSA Program on the CDC 3600 to determine which items form a scale. Run at both .01 and .05 level.
- c) For Handicapped Persons Scale, items are scored 0 above the column break, 1 below the column break. For all other Scale scoring, the reverse is true. Items are scored 1 above the column break, 0 below the column break.
- d) Using the same procedure in point 5-a above, determine the CUT points for the intensity component of each item.
- e) Enter the MSA Program with the CUT points for the intensity component and scale as outlined in Point No. b for content.
- f) Adjusted total scores for content and intensity. Sum the dichotomized content and intensity scores (i.e., 0, 1) obtained by the above procedure for each respondent on those items that scaled for both content and intensity. Maximum score will be 1 x the number of the same items that scaled on both content and intensity.
- g) Zero Point. Using only the items that scaled for both content and intensity, plot and determine the "zero point" for each cultural group (or other desired groupings) via the method detailed on pages 221-234 by Guttman (1950).

45	1	Handicapped Persons	1 - 1, not strongly at all
thru	thru	Scale <u>Intensity</u>	2 - 2, not very strongly
64	20		3 - 3, fairly strongly
			4 - 4, very strongly

CARD 1

Page 1-12

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
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* Instructions for Coder: HANDICAPPED PERSONS SCALE, INTENSITY, COLUMNS 45-64.

1. Except for NO RESPONSE, intensity scores are to be determined as noted in the preceding section regarding content.
2. Those scales which are rejected because of an excess of NO RESPONSE items in respect to content will of course also be rejected for intensity. Intensity questions which are unscored, but which occur when the content part of the question is scored, will be scored as follows:

If content score is 1 or 4, score intensity 4.
 If content score is 2 or 3, score intensity just below the mean intensity score for that item; i.e., mean intensity of the group.

3. Intensity questions which are unscored, and which occur when the content part of the question is also unscored, will be scored at the highest point below the respondent's own median on the other intensity questions in the questionnaire; i.e., if respondent generally scored intensity questions either 4 or 3, so that the median was in between 3 and 4, score NO RESPONSE 2, and so forth.

65	3,4,6,	Education	1 - 1, strongly disagree
thru	10,11,	Scale	2 - 2, disagree
74	12,13,	<u>Traditional</u> ,	3 - 3, agree
	14,18,	<u>Content</u>	4 - 4, strongly agree
	19	<u>Responses*</u>	

* Instructions for Coder: EDUCATION SCALE, TRADITIONAL, CONTENT, COLUMNS 65-74.

1. Items are to be scored as circled by the respondent.

CARD 1

Page 1-13

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
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2. Follow the procedures outlined in caps on Page 1-12, Handicapped Persons Scale. Be sure to score only those items indicated above as applying to the traditional scale, content.

CARD 2

Page 2-1

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
1,2,3,	Nation and Location	Same as Card 1, page 1-1	
4,5	Group Number	01 - 99	
6,7	Respondent Number	01 - 99	
8	Sex of Respondent	Same as Card 1, page 1-1	
9	Occupational Recode (General)	Same as Card 1, page 1-2	
10	Occupational Recode (Mader)	Same as Card 1, page 1-2	
11,12	Deck or Card Number	02	
13,14	Project Director	Same as Card 1, page 1-2	
15,16	Day of Administration	1 - 31	
17,18	Month of Administration	1 - 12	
19,20	Year of Administration	Same as Card 1, page 1-3	
21	Type of Administration	Same as Card 1, page 1-3	
22,23	Occupation of Respondent	Same as Card 1, pages 1-3, 1-4, 1-5, 1-6, 1-7, 1-8	

CARD 2

Page 2-2

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
24	3,4,6, Education	1 - 1, not strongly at all	
thru 10,11,	Scale, <u>Tradi-</u>	2 - 2, not very strongly	
33	12,13, <u>ional,</u>	3 - 3, fairly strongly	
	14,18, <u>Intensity</u>	4 - 4, very strongly	
19	Responses*		

* Instructions for Coder: EDUCATION SCALE, TRADITIONAL, INTENSITY, COLUMNS 24-33 Intensity questions are scored as indicated in caps on pages 1-9 and 1-10 and as noted before, Handicapped Persons Scale, pages 1-9 and 1-10, instructions 1 through 5.

34	1,2,5, Education	1 - 1, strongly disagree	
thru 7,8,9,	Scale,	2 - 2, disagree	
43	15,16, <u>Progres-</u>	3 - 3, agree	
	17,20 <u>sive, Con-</u>	4 - 4, strongly agree	
	<u>tent</u>		
	Responses*		

* Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, CONTENT, COLUMNS 34-43

1. Items are to be scored exactly as circled.
2. Follow the procedures outlined in caps on pages 1-9 and 1-10, Handicapped Persons Scale. Be sure to score only those items indicated above as belonging to the progressive scale.

44	1,2,5, Education	1 - 1, not strongly at all	
thru 7,8,9,	Scale,	2 - 2, not very strongly	
53	15,16, <u>Progres-</u>	3 - 3, fairly strongly	
	17,20 <u>sive</u>	4 - 4, very strongly	
	<u>Intensity</u>		
	Responses*		

* Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, INTENSITY, COLUMNS 44-53 Same as instructions for Education Scale, Progressive content, page 2-1.

CARD 2

Page 2-3

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
54,55 <u>Raw S</u> score	Value scale, <u>Support</u> score**	01 - 32 no score*	
56,57 <u>Raw C</u> score	Value scale, <u>Conformity</u> score**	01 - 32 no score*	
58,59 <u>Raw R</u> score	Value scale, <u>Recognition</u> score**	01 - 32 no score*	
60,61 <u>Raw I</u> score	Value scale, <u>Independence</u>	01 - 32 no score*	
62,63 <u>Raw B</u> score	Value scale, <u>Benevolence</u> score**	01 - 32 no score*	
64,65 <u>Raw L</u> score	Value scale, <u>Leadership</u> score**	01 - 32 no score*	

* All 99's must be rescored at the median of the distribution for card punching, i.e., otherwise they add into the computations!

** Entries for columns 54-65 are obtained through scoring according to SRA Manual for Survey of Interpersonal Values, Science Research Associates, Inc., 259 East Erie Street, Chicago, Illinois, 1960. For scoring, coders should use the special keys adapted from the SRA English edition of the scale. Although the summed scores of the six value scales should total 90, scores between 84 and 95 are acceptable.

CARD 2

Page 2-4

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
66,67	Sum of Adjusted totals based on 00 - ? (Check dich. item for no. to use here) item dichotomization, scores, <u>H.P.</u> no score** 1 - 20 <u>Scale, Content</u> (1) <u>Content</u>		
68,69	Sum of Adjusted totals based on 00 - ? item item dichotomization, <u>H.P.</u> no score** scores, <u>Scale, Intensity</u> (1) 1 - 20 <u>Intensity</u>		
70,71	Sum of Adjusted totals 00 - ? item based on item no score** scores dichotomization, 3,4,6,10, <u>Education</u> 11,12,13, <u>Traditional</u> 14,18,19 <u>Scale, Content</u> (1)		
72,73	Sum of Adjusted totals 00 - ? item based on item no score** scores dichotomization, 3,4,6,10, <u>Education</u> 11,12,13, <u>Traditional</u> 14,18,19 <u>Scale, Intensity</u> (1)		
74,75	Sum of Adjusted totals 00 - ? item based on item no score** scores dichotomization, 1,2,5,7, <u>Education</u> 8,9,15, <u>Progressive</u> 16,17,20 <u>Scale, Content</u> (1)		
76,77	Sum of Adjusted totals 00 - ? item based on item no score** scores dichotomization, 1,2,5,7, <u>Education</u> 8,9,15, <u>Progressive</u> 16,17,20 <u>Scale, Intensity</u> (1)		

** See footnote, next page.

(1) " " " "

CARD 2

Page 2-5

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
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** All 99's must be rescored at the median of distribution for card punching, i.e., otherwise they add into the computations!

(1) See Card 1, Page 1-11, instruction No. 5-f, to ascertain how adjusted total scores are obtained.

CARD 3

Page 3-1

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
1,2,3	Nation and Location	Same as Card 1, Page 1-1	
4,5	Group Number	01 - 99	
6,7	Respondent Number	01 - 99	
8	Sex of Respondent	Same as Card 1, Page 1-1	
9	Occupational Recode (General)	Same as Card 1, Page 1-2	
10	Occupational Recode (Mader)	Same as Card 1, Page 1-2	
11,12	Deck or Card Number	03	
13,14	Project Director	Same as Card 1, Page 1-2	
15,16	Day of Administration	1 - 31	
17,18	Month of Administration	1 - 12	
19,20	Year of Administration	Same as Card 1, Page 1-3	
21	Type of Administration	Same as Card 1, Page 1-3	
22,23	Occupation of Respondent	Same as Card 1, Pages 1-3, 1-4, 1-5, 1-6, 1-7, and 1-8	

CARD 3

Page 3-2

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
24	1A Q'aire	Level of Educ. Contact*	<u>Best</u> 1 - 1, Elem. School 2 - 2, Sec. School 3 - 3, University 4 - 4, Other as specified
25	1B Q'aire		<u>Next Best</u> 1 - 1 2 - 2 3 - 3 SAME 4 - 4
26	1C Q'aire		<u>Third Best</u> 1 - 1 2 - 2 3 - 3 SAME 4 - 4
27	2(1-9) Recode from Question No. 30		1 - Yes, Personal <u>1</u> thru <u>5</u> = 2 - No, Personal 9 - No Contact
28	2(1-9) Recode from Question No. 30		1 - Yes, Impersonal <u>6</u> thru <u>8</u> = 2 - No, Impersonal 9 - No Contact
29	Open	Open	

* If Box A, B, and C are not filled in, attempt to score from examining questions 2-6. If unable to answer, score 9.

CARD 3

Page 3-3

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
30 thru Q'aire 38	2(1-9) Type of Educational Contact. Score each of these alternatives as: Yes - <u>1</u> (i.e., if circled) No - <u>2</u> (i.e., if uncircled) OR 9 No Response	1 - Father, etc. 2 - Some relative 3 - Self 4 - Friend 5 - Neighbor 6 - Studied 7 - Know a little 8 - Nothing 9 - Other	
39 Q'aire	3 Amount of Contact	1 - 1, Never 2 - 2, 3 months 3 - 3, 3 months to 6 months 4 - 4, 6 months to 1 year 5 - 5, 1 year to 3 years 6 - 6, 3 years to 5 years 7 - 7, 5 years to 10 years 8 - 8, Over 10 years 9 - 9, Over 15 years	*
40 Q'aire	4 Percent of income from Education	1 - 2, less than 10% 2 - 3, 10 to 25% 3 - 4, 25 to 50% 4 - 5, 50 to 75% 5 - 6, 75 to 100% 6 - 1, no work	*
41 Q'aire	5 Enjoyment of Educational Work	1 - 2, disliked 2 - 3, not much 3 - 4, somewhat 4 - 5, enjoyed 5 - 1, no experience	*

CARD 3

Page 3-4

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode</u>
42 6	Alternative	1 - 3, unavailable	*
Q'aire	Work	2 - 1, not acceptable	
		3 - 5, not quite acceptable	
		4 - 6, acceptable	
		5 - 4, no information	
		6 - 2, no experience	
NOTE: Questions 7 and 8 omitted.			
43,44 9	Age	20 - 20 years	
Q'aire		21 - 21	
		.	
		40 - 40	
45 10	Community in	1 - 4, city	*
Q'aire	which reared	2 - 3, city suburb	
	if more than	3 - 2, country town	
	one is checked	4 - 1, country	
	try to	5 - 5, other	
	determine in	9 - No response	
	which one		
	the respondent		
	spent most of		
	the time. If		
	impossible,		
	try to choose		
	a median (i.e.,		
	country, city,		
	score country		
	town)		
46 11	Employment	1 - 4, city	*
Q'aire	community	2 - 3, city suburb	
		3 - 2, country town	
		4 - 1, country	
		5 - 5, other	
		9 - No response	

CARD 3

Page 3-5

Column-Ques.	Item Detail	Code	Recode *
47 12	Recent	1 - 4, city	*
Q'aire	Residence	2 - 3, city suburb	
		3 - 2, country town	
		4 - 1, country	
		5 - 5, other	
		9 - No response	
48 13	Marital	1 - 5, married	*
Q'aire	Status	2 - 1, single	
		3 - 2, divorced	
		4 - 3, widowed	
		5 - 4, separated	
		9 - No response	
49,50 14	Number of	1 - 01	*
Q'aire	Children	2 - 02	
	If blank,	.	
	check Ques.	.	
	13. If	10 - 10	
	single,		
	score <u>00</u> ;		
	if married,		
	leave blank.		
	<u>DO NOT USE</u>		
	<u>99</u> !		
51,52 15	Yearly	01 - less than \$1000	*
(A or B)	Income	02 - \$1,000 to \$1,999	
Q'aire		03 - \$2,000 to \$2,999	
	If no	.	
	response,	.	
	<u>do not</u> score	10 - \$9,000 to \$9,999	
	<u>99</u> !	to	
		22 - \$21,000 and over	
53 16	Comparative	1 - 5, much lower	*
Q'aire	Income	2 - 4, lower	
		3 - 3, about the same	
		4 - 2, higher	
		5 - 1, much higher	
		6 - 8, no opinion	
		9 - 9, no response	

CARD 3

Page 3-6

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
54,55 17 Q'aire	Brothers If the respondent answers only one question (17 or 18) and other is blank, assume it to be zero. DO NOT SCORE NO RESPONSE <u>99!</u>	1 - 01 2 - 02 . . 10 - 10	
56,57 18 Q'aire	Sisters	Same as number of brothers	
58,59 None	Siblings - Obtain by summing Questions 17 & 18, Columns 54,55 and 56,57	1 - 01 . 15 - 15	
60 19 Q'aire	Father's Income: Comparative	1 - 5, much lower 2 - 4, lower 3 - 3, about the same 4 - 2, higher 5 - 1, much higher 6 - 8, no opinion	*
61 20 Q'aire	Religion	1 - 1, Roman Catholic 2 - 2, Protestant 3 - 3, Jewish 4 - 4, None 5 - 5, Other 9 - No response	

CARD 3

Page 3-7

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
62 21 Q'aire	Importance of Religion Self state- ment	1 - 1, not very 2 - 2, fairly 3 - 3, very	*
63 22 Q'aire	Amount of personal relation- ship on the job	1 - 1, none 2 - 2, less than 10% 3 - 3, 10 to 30% 4 - 4, 30 to 50% 5 - 5, 50 to 70% 6 - 6, 70 to 90% 7 - 7, over 90% 8 - 8, no contact	*
64 23 Q'aire	Importance of personal relation- ships on the job	1 - 1, not at all 2 - 2, not very 3 - 3, fairly 4 - 4, very	*
65 24 Q'aire	Diffusion of job relation- ships	1 - 1, none 2 - 2, less than 10% 3 - 3, 10 to 30% 4 - 4, 30 to 50% 5 - 5, 50 to 70% 6 - 6, 70 to 90% 7 - 7, over 90% 9 - 9, no response	*
66 25 Q'aire	Number of Social Classes	1 - 1, none or one 2 - 2, two 3 - 3, three 4 - 4, more than three 6 - 8, no opinion	*
67 26 Q'aire	Social Class Position: Self	1 - 1, lower 2 - 2, middle 3 - 3, upper 4 - 4, other 5 - 8, no opinion 9 - 9, no response	*

CARD 3

Page 3-8

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
68 27	Social Class	1 - 1, lower	*
Q'aire	Position:	2 - 2, middle	
	Father	3 - 3, upper	
		4 - 4, other	
		5 - 8, no opinion	
		9 - 9, no response	
69 28	Amount of	1 - 1, three years or less	*
Q'aire	Education	2 - 2, six years or less	
	If more	3 - 3, nine years or less	
	than one	4 - 4, twelve years or less	
	answer is	5 - 5, some college	
	circled,	6 - 6, degree	
	choose the	7 - 7, work beyond degree	
	highest	8 - 8, advanced degree	
	amount or	9 - 9, other	
	determine		
	the		
	appropriate		
	answer		
70 29	Education:	1 - 1, much less	*
Q'aire	Self-Com-	2 - 2, less	
	parative	3 - 3, average	
		4 - 4, more	
		5 - 5, much more	
		6 - 8, no opinion	
71 30	Education:	1 - 1, much less	*
Q'aire	Father -	2 - 2, less	
	Comparative	3 - 3, average	
		4 - 4, more	
		5 - 5, much more	
		6 - 8, no opinion	
72 31	Type of	1 - 1, rent house	*
Q'aire	Living	2 - 2, rent apartment	
	Arrange-	3 - 3, rent room	
	ment	4 - 4, purchase room and board	
		5 - 5, own apartment	
		6 - 6, own house	
		7 - 7, other	

CARD 3

Page 3-9

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>	
73	32	Rent Per	1 - \$20 or less	*
	(A or B)	Month	2 - 21 - 40 (dollars)	
			3 - 41 - 75	
			4 - 76 - 125	
			5 - 126 - 200	
			6 - 201 - 300	
			7 - 300 or more	
			8 - Don't know	
			9 - 9, no response	

CARD 4

Page 4-1

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
1,2,3,	Nation and Location	Same as Card 1, Page 1-1	
4,5	Group Number	01 - 99	
6,7	Respondent Number	01 - 99	
8	Sex of Respondent	Same as Card 1, Page 1-1	
9	Occupational Recode (General)	Same as Card 1, Page 1-2	
10	Occupational Recode (Mader)	Same as Card 1, Page 1-2	
11,12	Deck or Card Number	04	
13,14	Project Director	Same as Card 1, Page 1-2	
15,16	Day of Administration	1 - 31	
17,18	Month of Administration	1 - 12	
19,20	Year of Administration	Same as Card 1, Page 1-3	
21	Type of Administration	Same as Card 1, Page 1-3	

CARD 4

Page 4-2

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
22,23	Occupation of Respondent	Same as Card 1, Pages 1-3, 1-4, 1-5, 1-6, 1-7, 1-8	
24	33-1 Satisfaction with Elementary Schools	1 - Poor 2 - Fair 3 - Good 4 - Excellent 8 - Don't Know **	*
25	33-2 Satisfaction with Secondary Schools	Same as **	*
26	33-3 Satisfaction with Universities	Same as **	*
27	33-4 Satisfaction with Businessmen	Same as **	*
28	33-5 Satisfaction with Labor	Same as **	*
29	33-6 Satisfaction with Government	Same as **	*
30	33-7 Satisfaction with Health Service	Same as **	*
31	33-8 Satisfaction with Churches	Same as **	*

**** If feasible, rescore all 8's at median of distribution for further data analysis after looking at the frequency distribution from the computer print out, i.e., would require recoding or card punching.**

CARD 4

Page 4-3

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
32 34	Time in Present Community	1 - 1, less than a year 2 - 2, one to two years 3 - 3, three to six years 4 - 4, seven to ten years 5 - 5, over ten years	*
33 35	Residency Change	1 - 1, yes 2 - 2, no 9 - 9, no response	
34 36	Employment Change	1 - 1, yes 2 - 2, no 9 - 9, no response	
35 37	Frequency of Resi- dency Change (last ten years)	1 - 1, none 2 - 2, one time 3 - 3, two to three times 4 - 4, four to six times 5 - 5, seven to ten times 6 - 6, over ten times	*
36 38	Frequency of Job Change (last ten years)	1 - 1, none 2 - 2, one time 3 - 3, two to three times 4 - 4, four to six times 5 - 5, seven to ten times 6 - 6, over ten times	*
37,38 39	Occupation (Specific)	Same as Card 1, Pages 1-3, 1-4, 1-5, 1-6, 1-7, 1-8	
39 40	Observance of Religious Rules	1 - 1, seldom 2 - 2, sometimes 3 - 3, usually 4 - 4, almost always	*
40 41	Health Practice Change	1 - 5, yes 2 - 4, maybe 3 - 2, probably not 4 - 1, no 5 - 3, Don't know	*

CARD 4

Page 4-4

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
41 42	Child Rearing Practices Change	1 - 5, strongly agree 2 - 4, slightly agree 3 - 3, don't know 4 - 2, slightly disagree 5 - 1, strongly disagree	*
42 43	Birth Control Practices	1 - 1, always wrong 2 - 2, usually wrong 3 - 3, probably right 4 - 4, always right	*
43 44	Change of Political Leaders	1 - 5, strongly agree 2 - 4, slightly agree 3 - 3, don't know 4 - 2, slightly disagree 5 - 1, strongly disagree	*
44 45	Aid to Education	1 - 5, strongly agree 2 - 4, slightly agree 3 - 3, don't know 4 - 2, slightly disagree 5 - 1, strongly disagree	*
45 46	Personal Change - Ways	1 - 4, very easy 2 - 3, somewhat easy 3 - 2, slightly difficult 4 - 1, very difficult	*
46 47	Commitment to Rules	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, don't know 4 - 4, disagree slightly 5 - 5, disagree strongly	*
47 48	Routine Job Duties	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, don't know 4 - 4, disagree slightly 5 - 5, disagree strongly	*
48 49	Parental Ties	Same	*

CARD 4

Page 4-5

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
49 50	Helpfulness to Friends Vs. Others	Same	*
50 51	Planning for Future	Same	*
51 52	Necessary for Happiness	1 - 1, nothing 2 - 2, money 3 - 3, friends 4 - 4, job 5 - 5, health 6 - 6, other	*
52 53	Possibility of Happiness	1 - nothing 2 - marriage and divorce 3 - friends 4 - religion (satisfaction with life) 5 - money 6 - job 7 - education 8 - health (mental and physical) 9 - no response	*

HANDICAPPED PERSONS QUESTIONNAIRE

53 1 Q-HP	Primary Contact Group	1 - 1, bline 2 - 2, partially blind 3 - 3, deaf (and mute) 4 - 4, partially deaf 5 - 5, crippled 6 - 6, disfigured 7 - 7, spastic 8 - 8, speech 9 - 0, none	*
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CARD 4

Page 4-6

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
54 2 Q-HP	Other Contact Groups	If there was no contact and * questions are not answered, score <u>0</u> . The score for this question is the <u>sum</u> of the response alternatives circled, i.e., scores can range from <u>0</u> to <u>8</u>	
55-57.....Open.....Open.....			
58 3 Q-HP	Varieties of Contact With Handi- capped Persons If a single response is circled, use the digit-to- digit system. If <u>more</u> than one is circled use the combined categories and code as <u>7</u> or <u>8</u> .	1 - 6, father, etc. 8 — 2 - 5, other relative 3 - 4, worked 4 - 3, friend 7 — 5 - 2, studied 6 - 1, little 7 - 9, self	*
59 4 Q-HP	Amount of Contact	1 - 1, less than ten 2 - 2, ten to fifty 3 - 3, fifty to 100 4 - 4, 100 to 500 5 - 5, over 500	*
60 5 Q-HP	Ease of Avoidance	1 - 1, great difficulty 2 - 2, considerable difficulty 3 - 3, some inconvenience 4 - 4, no inconvenience	*
61 6 Q-HP	Material Gain from Contact	1 - 1, paid 2 - 2, credit 3 - 3, no rewards 4 - 4, paid and credit	*

CARD 4

Page 4-7

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
62 7 Q-HP	Per cent of Income from Work with Handicapped	1 - 1, less than 10% 2 - 2, 10 to 25% 3 - 3, 25 to 50% 4 - 4, 50 to 75% 5 - 5, over 75% 6 - 6, if 3 is circled in No. 6 or if they have never worked with handicapped	*
63 8 Q-HP	Feelings About Contact	1 - 1, disliked, great 2 - 2, disliked, little 3 - 3, liked, some 4 - 4, definitely enjoyed	*
64 9 Q-HP	Amount of Contact with <u>Mentally</u> <u>Retarded</u>	1 - 1, less than 10 2 - 2, 10 to 50 3 - 3, 50 to 100 4 - 4, 100 to 500 5 - 5, over 500	*
65 10 Q-HP	Amount of Contact with <u>Emotionally</u> <u>Ill</u>	Same	*
66,67 Sum of item scores 1-20 <u>Cont.</u>	Handicapped Persons Scale. <u>Total Content</u> <u>Raw</u> score entry on transcription sheet	00 - 80 Do Not Use <u>99*</u>	
68,69 Sum of item scores 1-20 <u>Int.</u>	Handicapped Persons Scale. <u>Total Inten-</u> <u>sity</u> Raw score entry on transcription sheet	00 - 80 Do Not Use <u>99*</u>	

CARD 4

Page 4-8

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
70,71 Sum of item scores 3,4,6, 10,11, 12,13, 14,18, 19	Education Scale, <u>Tradi-</u> <u>tional</u> , <u>Raw</u> <u>Content</u> score entry on trans- cription sheet	00 - 40 Do Not Use <u>99*</u>	
72,73 Sum of item scores 3,4,6, 10,11, 12,13, 14,18, 19	Education Scale, <u>Tradi-</u> <u>tional</u> , <u>Raw</u> <u>Intensity</u> score entry on transcrip- tion sheet	00 - 40 Do Not Use <u>99*</u>	
74,75 Sum of item scores 1,2,5, 7,8,9, 15,16, 17,20	Education Scale, Progressive, Raw Content, score entry on transcrip- tion sheet	00 - 40 Do Not Use <u>99*</u>	
76,77 Sum of item scores 1,2,5, 7,8,9, 15,16, 17,20	Education Scale, Progressive Raw Intensity, score entry on transcription sheet	00 - 40 Do Not Use <u>99*</u>	

APPENDIX B

B-4 Data Transcription Sheet

Attitudes Toward Education: Michigan Study

Handicapped Persons Scale (Card 1)		Education Scale - Traditional		Education Scale - Progressive	
		Card 1	Card 2	Card 1	Card 2
Content (Col)	Intensity (Col)	Content (Col)	Intensity (Col)	Content (Col)	Intensity (Col)
1. ____ (25)	____ (45)	3. ____ (65)	____ (25)	1. ____ (35)	____ (45)
2. ____ (26)	____ (46)	4. ____ (66)	____ (26)	2. ____ (36)	____ (46)
3. ____	____	6. ____ (67)	____ (27)	5. ____ (37)	____ (47)
4. ____	____	10. ____ (68)	____ (28)	7. ____ (38)	____ (48)
5. ____	____	11. ____ (69)	____ (29)	8. ____ (39)	____ (49)
6. ____	____	12. ____ (70)	____ (30)	9. ____ (40)	____ (50)
7. ____	____	13. ____ (71)	____ (31)	15. ____ (41)	____ (51)
8. ____	____	14. ____ (72)	____ (32)	16. ____ (42)	____ (52)
9. ____	____	18. ____ (73)	____ (33)	17. ____ (43)	____ (53)
10. ____ (34)	____ (54)	19. ____ (74)	____ (34)	20. ____ (44)	____ (54)
11. ____	____	—	—	—	—
12. ____	____				
13. ____	____				
14. ____	____				
15. ____ (39)	____ (59)				
16. ____	____				
17. ____	____				
18. ____	____				
19. ____	____				
20. ____ (44)	____ (64)				
—	—				

Location _____

Group _____

Respondent No. _____

APPENDIX B

B-5 FCC I and II Variable- Computer Print-Out Code

ATTITUDES TOWARD EDUCATION OF
HANDICAPPED AND NON-HANDICAPPED PERSONS:
A CROSS-CULTURAL STUDY

MICHIGAN STUDY

VARIABLE DESCRIPTION BY:

1. IBM Card and Column Location
2. Field No. from F.C.C. programs
I and II
3. Individual Item and Scale Location
4. Category: type of variable
5. Name: item content

March, 1966

FCC I

Card 1

Field No.	Question	Variable Name	Col.
1	Face Sheet of Scales	Location within Michigan	3
2	Face Sheet of Scales	Sex	8
3	39 Q'aire	Special Education Occupation	9
4	Face Sheet of Scales	Type of Administration	21
5	37 Q'aire	Current Employment Status	24
6-25	H-P Scale	H-P Content	25-44
26-45	H-P Scale	H-P Intensity	45-64
46-55	Education Scale	Trad. Education - Content	65-74

Card 2

First 23 Columns SAME as Card 1 except for Col. 12 (Card No.)

56-65	Education Scale	<u>Trad.</u> Education-Intensity	24-33
66-75	Education Scale	<u>Prog.</u> Education-Content	34-43
76-85	Education Scale	<u>Prog.</u> Education-Intensity	44-53

Card 3

First 23 Columns SAME as Card 1 except for Col. 12 (Card No.)

86	1-A-Q'aire	Level of Educ. Contact-First	24
87	1-B-Q'aire	Level of Educ. Contact-Second	25
88	1-C-Q'aire	Level of Educ. Contact-Third	26
89	2-Q'aire	Contact-Personal	27
90	2-Q'aire	Contact-Impersonal	28
Open	Open	Open	29

FCC I (Cont'd.)

Field No.	Question	Variable Name	Col.
91-99	2-Q'aire	Contact-(Type of Education)	30-38
100	3-Q'aire	Contact-(Amt. of Education)	39
101	4-Q'aire	Contact-(Gain from Education)	40
102	5-Q'aire	Contact-(Enjoyment-Education)	41
103	6-Q'aire	Contact-(Alternatives to Edu.)	42
104	10-Q'aire	Early Youth Community	45
105	11-Q'aire	Employment Community (recent)	46
106	12-Q'aire	Residence Community (recent)	47
107	13-Q'aire	Marital Status	48
108	16-Q'aire	Income (comparative-self fam.)	53
109	19-Q'aire	Income (father comparative)	60
110	20-Q'aire	Religious affiliation	61
111	21-Q'aire	Religion (Importance)	62
112	22-Q'aire	Personalism (job-amount)	63
113	23-Q'aire	Personalism (job-importance of)	64
114	24-Q'aire	Personalism (job-diffusion)	65
115	25-Q'aire	Social class (number of)	66
116	26-Q'aire	Social class position (self)	67
117	27-Q'aire	Social class position father	68
118	28-Q'aire	Education (self-amount)	69
119	29-Q'aire	Education (self-comparative)	70
120	30-Q'aire	Education (father-comparative)	71
121	31-Q'aire	Housing (type of)	72
122	32-Q'aire	Housing (rental-month)	73

FCC I (Cont'd.)

Field No.	Question	Variable Name	Col.
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Card 4

First 23 Columns SAME as Card 1 except for Col. 12 (Card No.)

123	33-1-Q'aire	Institutional satisfac- tion (Elementary Schools)	24
124	33-2-Q'aire	Institutional satisfac- tion (Secondary Schools)	25
125	33-3-Q'aire	Institutional satisfac- tion (Universities)	26
126	33-4-Q'aire	Institutional satisfac- tion (Businessmen)	27
127	33-5-Q'aire	Institutional satisfac- tion (Labor)	28
128	33-6-Q'aire	Institutional satisfac- tion (gov't.)	29
129	33-7-Q'aire	Institutional satisfac- tion (Health Services)	30
130	33-8-Q'aire	Institutional satisfac- tion (Churches)	31
131	34-Q'aire	Residence (current length)	32
132	35-Q'aire	Residence (change-recent)	33
133	36-Q'aire	Job (change-recent)	34
134	37-Q'aire	Residence (change- frequency)	35
135	38-Q'aire	Job (change-frequency)	36
136	40-Q'aire	Religiousity (norm- comformity)	39
137	41-Q'aire	Change orientation (health-practice)	40
138	42-Q'aire	Change orientation (child rearing)	41
139	43-Q'aire	Change orientation (birth control)	42
140	44-Q'aire	Change orientation (political leaders)	43
141	45-Q'aire	Education (aid to)	44
142	46-Q'aire	Change orientation (self)	45
143	47-Q'aire	Change orientation (self- rule adherence)	46
144	48-Q'aire	Change orientation (self- routine job)	47

FCC I (Cont'd.)

Field No.	Question	Variable Name	Col.
145	49-Q'aire	Personalism (familialism- parental ties)	48
146	50-Q'aire	Personalism (other orientation)	49
147	51-Q'aire	Future Orientation (planning)	50
148	52-Q'aire	Future Orientation (happiness prerequisites)	51
149	53-Q'aire	Possibility of happiness	52
150	1-Q-HP	Contact Group (primary)	53
151	2-Q-HP	Contact Group (secondary)	54
152	3-Q-HP	Contact (varieties)	58
153	4-Q-HP	Contact (amount)	59
154	5-Q-HP	Contact (ease of avoidance)	60
155	6-Q-HP	Contact (gain from)	61
156	7-Q-HP	Contact (% of income from)	62
157	8-Q-HP	Contact (enjoyment of)	63
158	9-Q-HP	Contact (mentally retarded)	64
159	10-Q-HP	Contact (emotionally disturbed)	65

Card 5

First 23 Columns SAME as Card 1 except for Col. 12 (Card No.)

160-212	Gordon Scales Questions 1-52	Interpersonal Values Value Scale	24-76
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Card 6

First 23 Columns SAME as Card 1 except for Col. 12 (Card No.)

213-249	Gordon Scales Questions 53-90	Interpersonal Values Value Scale	24-61
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