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ABSTRACT

ATTITUDES OF SPECIAL EDUCATORS VERSUS REGULAR TEACHERS TOWARD THE PHYSICALLY HANDICAPPED AND TOWARD EDUCATION IN MICHIGAN

by James Harlen Green

The primary purpose of this dissertation was to compare special educators and regular classroom teachers with regard to their attitudes toward the physically handicapped and toward education. Interpersonal values, personal contact, change orientation, and certain demographic variables were considered to be determinants of attitudes. A social-psychological theoretical framework was used to study attitudes toward physically disabled persons and toward traditional and progressive education.

The study was conducted in Michigan and the fifteen counties from which the sample was drawn geographically resembled a previous (Mader, 1967) study of special educators. A stratified random sample of 200 regular elementary and 200 secondary teachers was selected. There was a 78 percent return of the questionnaires.

A battery of five research instruments consisted of: (a) the Attitudes Toward Disabled Persons Scale (Yuker et al., 1960), (b) the Attitudes Toward Education Scale

(Kerlinger, 1958), (c) the Survey of Interpersonal Values (Gordon, 1960), (d) the Personal Questionnaire, and (e) the Personal Questionnaire-HP.

The hypotheses were divided into four major categories pertaining to: (a) contact frequency, intensity, and attitude scores, (b) attitude-value interaction, (c) change orientation and attitude, and (d) differences between special educators and regular classroom teachers regarding attitudes, values, change orientation, and contact.

Statistical procedures involved the use of two frequency Column Count Programs, in tabulating frequency distributions for every variable. One- and two-way analysis of variance computer-programs were used for testing hypotheses about the difference between group means. A two-way analysis of variance design for unequal N's was used to analyze group-sex interaction. Since the samples were not equal in size or in sex ratio within groups, an "adjusted mean" was computed on which to base all F tests. The adjusted mean equalizes or accounts for the variance in the size of the group samples as well as the unequal sex distribution within the samples. The F test procedure for testing for significance among multiple adjusted means is approximately equal to Duncan's Multiple Means test up to and including three treatment means. Relational and predictive statistics were obtained

by simple correlations with z' transformation analyses to permit testing for differences between correlations.

Hypothesis testing indicates a significant difference exists between special educators and regular teachers on contact frequency and intensity of attitudes toward physically disabled persons. Special educators had more frequent contact and more intense attitudes toward the physically handicapped. A significant difference was found with regard to progressive attitudes toward education, but no significant difference between groups was evident for traditional attitudes and frequency of contact.

There is support for the theoretical position that contact with the disabled is significantly related to enjoyment of the contact and is significantly different for special educators and regular teachers. Frequency of contact with education was related to alternatives, enjoyment, and avoidance in the direction hypothesized with significant differences between the groups.

Hypotheses were tested relating value orientations to attitudes toward disabled persons and attitudes toward traditional and progressive education. The Survey of Interpersonal Values was used to assess "asset" and "comparative" orientations. No differences were found to disconfirm the hypotheses for attitudes toward disabled persons as effected by the value orientation.

However, there were significant differences between special educators and regular classroom teachers in their attitudes toward education as effected by value orientations, but opposite the predicted direction on both Leadership and Recognition (i.e., comparative orientation).

It was hypothesized that no differences would exist between the groups on Benevolence (asset orientation), attitudes toward the physically handicapped, and progressive attitudes while holding sex constant. The findings were only significant for progressive attitudes toward education.

Limited support was evident from the hypotheses testing of change orientation variables with only one significant difference evident between special educators and regular teachers. The difference was on child rearing practices, but opposite to the proposed departure from the status quo and high relation to progressivism that had been postulated for special educators.

It was hypothesized that special educators would differ significantly from regular teachers in regard to the following: (a) more favorable attitudes toward disabled persons, (b) higher mean Benevolence and lower mean Leadership and Recognition value scores, (c) higher mean progressive and lower mean traditional attitudes toward education, (d) higher mean score on change orientation

variables, and (e) higher mean scores on amount of contact with mentally retarded or emotionally disturbed persons. No differences were found between special educators and regular teachers on attitudes toward physically disabled persons or on asset-comparative orientation (Benevolence, Leadership and Recognition). There were significant differences between groups on the traditional and progressive attitude scores in the direction hypothesized with special educators being more progressive. Significant differences between special educators and regular teachers were found on the change orientation variables of child rearing and health practices, and with support for the predicted direction of the hypotheses.

Recommendations have been made relating to instrumentation, sampling procedures, statistical analysis, and to the findings of the study. The model for the selection and scaling of attitude items as developed by Guttman would be useful for further study. This model, known as "facet design" attempts to substructure an attitude universe into logically established components.

A stratified random sample was obtained and it is suggested that personal contact, explanation, and adequate follow-up, expedite response to questionnaires in survey research.

The findings cast some doubt on the relationship of values to attitudes toward the physically handicapped

and toward education. It is recommended that further exploration be made of the value-attitude relationship.

It is suggested that further differentiation of the special educators and regular classroom teachers be made. The results of the present study indicate that both groups are diverse in composition and interests. These diversities no doubt were influential in the failure to reject a number of hypotheses.

Further investigation¹ of "comparisons" within and between the two groups of the study on designated variables as well as further investigation of the relationships between variables (e.g., contact frequency and intensity) is necessary if the attitude-contact-knowledge-value matrix is to be fully understood.

¹This study of attitudes toward education and toward handicapping conditions is in progress in countries in Europe, Latin America, Asia, and the United States under the direction of Dr. John E. Jordan of Michigan State University.

ATTITUDES OF SPECIAL EDUCATORS VERSUS REGULAR
TEACHERS TOWARD THE PHYSICALLY HANDICAPPED
AND TOWARD EDUCATION IN MICHIGAN

By

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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 technical, and analyses procedures were 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.

The interpretations of the data are those of the author and have attempted to make a contribution to the broader research program developed by Dr. John E. Jordan at Michigan State University.

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Several people contributed to this research who are not acknowledged individually. I extend a sincere "thank you" to each, for without the cooperation of teachers, and the administration of the public schools of Michigan, this dissertation would not have been possible.

Appreciation is extended to my major advisor, Dr. John E. Jordan, who has been patient, always ready to provide encouragement and counsel throughout my doctoral program. I am also indebted to the members of my doctoral committee: Dr. James Costar, Dr. Alfred Dietze, and Dr. Floyd Parker.

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TABLE OF CONTENTS

	Page
PREFACE	ii
ACKNOWLEDGMENTS	iii
LIST OF TABLES.	ix
LIST OF FIGURES	xiv
LIST OF APPENDICES	xv
Chapter	
I. INTRODUCTION	1
Nature of the Problem	1
Statement of the Problem	8
Research Hypotheses.	11
Definition of Terms.	13
II. BACKGROUND OF THEORY AND RELATED RESEARCH	20
General Theoretical Considerations.	21
Empirical Research Relating Value and Personal Contact to Attitude.	21
Theoretical Framework	24
Attitudes Toward Physical Disability.	24
Attitudes Toward Education	28
Attitude Intensity	31
Personal Contact.	33
Empirical Research on Attitudes.	35
Toward the Physically Disabled	35
Toward Education.	46

Chapter	Page
* The Measurement of Attitudes	51
General Considerations	51
Scale Analysis.	53
III. METHODOLOGY AND PROCEDURES	56
Research Population	57
General Considerations	57
Selection of Variables	58
*Attitudes Toward Physical Disability	59
The Intensity Scales.	61
Interpersonal Values.	62
*Personal Contact Variables.	63
*Preferences for Personal Relation-	
ships.	65
Institutional Satisfaction.	66
Change Orientation	66
*Demographic Variables	67
*Religiosity.	68
*Collection of Data	68
*Statistical Procedures	72
*Descriptive.	72
Scale and Intensity Analysis	72
Mean Differences Analyses	74
*Relational and/or Predictive	
Analyses.	76
*Level of Significance	78
Statistical Hypotheses	78
*Hypotheses Related to Contact Fre-	
quency and Attitude Scores.	78
*Hypotheses Related to Attitude-	
Value Interaction.	80
*Hypotheses Related to Character-	
istics of Regular Teachers and	
of Special Educators.	83
Hypotheses Related to Character-	
istics of Those Working Directly	
with the Physically Disabled	84

Chapter	Page
IV. ANALYSIS OF THE DATA	87
Section 1: Descriptive Data	87
Differences in Education, Income, and Age Between Respondent Groups . . .	88
Summary of Descriptive Data in Table 3	91
Section 2: Hypothesis Testing, Mean Differences, and Correlational Analysis	92
Hypotheses Related to Contact Fre- quency, Intensity, and Attitude Scores.	92
Hypotheses Related to Attitude and Value Interactions.	99
Hypotheses Related to Change Orien- tation and Attitude Scores . . .	106
Zero-Order Correlations Between Attitudes and Values	110
Hypothesis Related to Characteristics of Those Working Directly with the Physically Disabled	114
V. SUMMARY, DISCUSSION, AND RECOMMENDATIONS .	122
Part I: Summary of the Theoretical and Methodological Issues	122
Nature of the Problem.	122
Summary of Theory	123
Summary of Hypotheses Construction .	126
Summary of Instrumentation	127
Summary of Statistical Procedures. .	129
Summary of the Sample	130
Part II: Discussion of the Results and Implications of Hypothesis Testing .	130
Hypotheses Relating to Contact Fre- quency and Intensity	131
Hypotheses Related to Attitude and Value Interactions	135
Change Variables as Related to Attitude Scores.	139

Chapter	Page
Hypotheses Related to Characteristics of Those Working Directly with the Physically Disabled . .	141
Summary of Hypothesis Testing. . .	146
Part III: Recommendations.	149
Recommendations Relating to the Instruments.	149
Recommendations Regarding Sampling Procedures	150
Recommendations Regarding Statistical Analysis	151
Recommendations Relating to the Findings of the Study	152
REFERENCES	155
APPENDICES	180

LIST OF TABLES

Table	Page
1. Distribution of Respondents According to Occupation and Sex	88
2. Stratified Random Sample of Elementary and Secondary Teachers--Michigan.	89
3. Sample Size, Means, Standard Deviations, and <u>t</u> Statistic in Respect to Three Demographic Variables for Amount of Education, Income, and Age Comparing Special Educators and Regular Classroom Teachers.	90
4. Interpretation of Education Scores in Terms of Actual Educational Attainment	91
5. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Intensity Scores on the Attitude-Toward-Disabled-Persons (ATDP) Scale, Controlling for Frequency of Contact	93
6. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Intensity Scores on the Progressive-Attitude-Toward-Education (PATE) Scale, Controlling for Frequency of Contact	95
7. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Intensity Scores on the Traditional-Attitude-Toward-Education (TATE) Scale, Controlling for Frequency of Contact	95
8. Zero-Order Correlations Between Amount of Contact with Disabled Persons and Intensity Scores on Attitudes-Toward-Disabled-Persons Scale, and the Progressive and Traditional Attitude Scales for Special Educators and Regular Classroom Teachers	96

9.	Sample Size, Simple Correlations, the z Values, and a Statement of Significance in Comparing Special Educators and Regular Classroom Teachers on the Relationship Between Frequency of Contact with Disabled Persons and Alternatives, Enjoyment, and Avoidance of Contacts . . .	97
10.	Sample Size, Simple Correlations, the z Values and a Statement of Significance in Comparing Special Educators and Regular Classroom Teachers on the Relationship Between Frequency of Contact with Education and Alternatives, Enjoyment, and Avoidance of Contacts	98
11.	Sample Size, Means, Standard Deviation, and F Statistic Comparing Special Educators and Regular Classroom Teachers on Scores of the Attitude-Toward-Disabled-Persons Scale as Effected by Leadership Value Scores	100
12.	Sample Size, Means, Standard Deviation, and F Statistic Comparing Special Educators and Regular Classroom Teachers on Scores of the Progressive-Attitudes-Toward-Education Scale as Effected by Leadership Value Scores	101
13.	Sample Size, Means, Standard Deviation and F Statistic Comparing Special Educators and Regular Classroom Teachers on Scores of the Traditional-Attitudes-Toward Education Scale as Effected by Leadership Value Scores	101
14.	Sample Size, Means, Standard Deviation, and F Statistic Comparing Special Educators and Regular Classroom Teachers on Scores of the Attitude-Toward-Disabled-Persons Scale as Effected by Recognition Value Scores	103
15.	Sample Size, Means, Standard Deviation, and F Statistic Comparing Special Educators and Regular Classroom Teachers on Scores of the Traditional-Attitudes-Toward-Education Scale as Effected by Recognition Value Scores.	103

Table	Page
16. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Scores of the Progressive-Attitudes-Toward-Education Scale as Effected by Recognition Value Scores.	104
17. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Scores of the Attitude-Toward-Disabled-Persons Scale as Effected by Benevolence Value Scores	104
18. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Scores of the Traditional-Attitude-Toward-Education Scale as Effected by Benevolence Value Scores	105
19. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Scores of the Progressive-Attitude-Toward-Education Scale as Effected by Benevolence Value Scores	105
20. Sample Size, Means, Standard Deviations, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers, (While Holding Sex Constant) on Benevolence, Attitudes Toward the Disabled, the Progressive-Attitude-Toward-Education Scores	107
21. Sample Size, Simple Correlations, the z Values, and a Statement of Significance in Comparing Special Educators and Regular Classroom Teachers on Attitudes Toward Disabled Persons as Related to Health, Child Rearing, and Birth Control Practices	108

Table	Page
22. Sample Size, Simple Correlations, the z Values, and a Statement of Significance in Comparing Special Educators and Regular Classroom Teachers on TATE and PATE as They Relate to Health, Child Rearing, and Birth Control Practices	109
23. Zero-Order Correlations Between Attitudes-Toward-Disabled-Persons Scale (Content) and the Gordon Value Scale for Special Educators and Regular Classroom Teachers	111
24. Zero-Order Correlations Between Progressive (P) and Traditional (T) Education Scales (Content) and the Gordon Value Scale for Special Educators and Regular Classroom Teachers	112
25. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Mean Scores of the ATDP Scale	114
26. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Measures of Benevolence, Recognition, and Leadership	115
27. Sample Size, Means, Standard Deviations, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Scores Indicating Progressive or Traditional Attitudes Toward Education	116
28. Sample Size, Means, Standard Deviations, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Change Orientation Variables of Health, Child Rearing, and Birth Control Practices	117
29. Sample Size, Means, Standard Deviation, and <u>F</u> Statistic Comparing Special Educators and Regular Classroom Teachers on Frequency of Contact with the Mentally Retarded (MR) the Emotionally Disturbed Persons (EDP).	118

Table	Page
30. Sample Size, Means, Standard Deviations, and <u>F</u> Statistic Comparing Regular Ele- mentary and Secondary Classroom Teachers on ATDP, PATE, TATE, Benevolence, and Leadership	120
31. Summary of Hypotheses 1 Through 12 Indicating Acceptance or Rejection of Each Statisti- cal Null Hypothesis and Directionality of the Research Hypothesis.	121

LIST OF FIGURES

Figure	Page
1. The Geographical Representation of the Michigan Counties from Which the Sample of Special Educators and Regular Teach- ers Were Taken	69

LIST OF APPENDICES

Appendix		Page
A-1	Definitions of Physical Handicap . . .	181
A-2	Education Scale.	183
A-3	Survey of Interpersonal Values. . . .	191
A-4	Personal Questionnaire	199
A-5	Handicapped Persons Scale (ATDP) . . .	217
A-6	Personal Questionnaire (HP).	225
B-1	Basic Variables of the Study	231
B-2	Code Book.	237
B-3	Special Instructions and FCC I and FCC II Variable-Computer Print-Out Code Forms	267
B-4	Data Transcription Sheet.	273

CHAPTER I

INTRODUCTION

Technological change has, rather suddenly, posed a dramatic challenge to political, economic, social, and educational institutions. Though the full scope of this challenge may not be comprehended for years, its dimensions are now clear enough to call for a massive response on the part of American education. All levels of education must quickly move to assume greater responsibilities for preparing men and women for entry into the changed and changing world of technological work and consequently a changing social structure.

The most significant aspect of the new technology **is** described by the word change. Only those who can adapt **to** change will survive. The concept of change is not new; **what** is new is the change in the rate of change. Political, **e**conomic, and psychological implications of such change **demand** serious consideration.

Nature of the Problem

The landmark of technological developments has been **the** introduction of automation and computers into all **phases** of life. Automation encompasses a class of devices

that automatically perform both the sensing and the motor tasks formerly performed by human labor. Thus, automated machines can and will replace men and women in the vocational world. Computers are devices which rapidly perform traditional human tasks involving experience, memory, analysis, logic, and decision-making. Such devices now can diagnose symptoms for the physician, research a case for the lawyer, read envelopes for the postman, analyze market portfolios for the broker, design a plant for the architect, prepare war and defense plans for the military, fly missiles for the scientist, screen volunteers for the Peace Corps, and keep inventory for the merchant. These machines are being "taught" to translate languages, compose music, play chess, transcribe speech, and "see" objects; already they correct their mistakes and identify trouble spots in their mechanism.

Berg observes that:

Many people will be surplus and, furthermore, they will know it. They will not be the silent, bowed men of toil, but rather the trained persons who have up until now been mainstays in our society, who have skills to offer, but skills which society no longer needs. Eventually we shall find a solution, but the period of searching for answers, the period we are just now entering, will be a time of increasing upheaval and social torment. It seems highly probable that we shall be faced with problems of delinquency and crime beside which our present problems in these areas will be dwarfed almost to invisibility. It also seems highly probable that the frequency of disorder such as alcoholism, depressions, neurotic reactions, etc., will vastly increase (Berg, 1965, p. 204).

Western cultures have tended to validate their identities through physical work. Here the impact of change will be keenly felt, and the threat of automation becomes a reality as it tends to destroy man's effort to find himself. In a highly mechanized society validating "identity-through-work" is already meaningless. No longer will hard physical work as such ensure a meaningful identity.

Traditionally the disabled or handicapped person had limited opportunities to gain an identity based on vocational skills. In the United States serious efforts have been made to correct this deficiency through federal and state rehabilitation programs. However, it appears to this author that it will be necessary to carefully re-evaluate the rehabilitation programs for the physically, intellectually, and emotionally handicapped. We now endeavor to promote a positive self image by giving them skills through which they may become productive and self-sustaining individuals. While the intent of this effort is unquestionably admirable, the disabled, who already carry an extra burden, will increasingly discover that his "new found" work skills are not needed.

Hess asks the provocative question:

What is the future of the disabled individual in an automated economy? He has some grounds for hope when he observes that automation is reducing physical demands and eliminating safety hazards in jobs, thereby making jobs compatible with many more types of handicapping conditions. But, even though the physical and mental requirements of a job may now

be within the tolerance of the handicapped individual, he is not necessarily assured of equal consideration in the sharp competition at the personnel office. Employers, as they ponder the choice between a large number of available candidates, need to insure against discrimination on the basis of the presence or absence of capacities unrelated to the requirements of the job (Hess, 1963, p. 156).

Familiar landmarks which may have served as cultural reference points and provided a means of validating personal identities are being swept away by the tidal wave of change. There will not be a choice of whether or not change should occur, but how will it occur.

An increasing concern of educators should be that change occur in socially responsible ways. Berg (1965), has noted that while ". . . we know something of attitudes and how to measure them . . . we must discover how to change them efficiently. We shall have to gain this knowledge rapidly . . ." (p. 203). The importance of the identification and modification of attitudes as they relate to the disabled should be evident to many professionals, but especially to educators.

A challenge that confronts educators is that of finding culturally relevant ways of helping the disabled individual validate his identity. Furthermore, if this search is going to be successful, the validation must be based on a model that emphasizes the intrinsic worth of man rather than some other preconceived standard. As pointed out by Mader (1967) it appears that a society

where the attitudes of individuals are important to the success of handicapped citizens, some evaluation of those attitudes held by special educators may be of value (p. 2).

✓To date limited interest has been demonstrated in the attitudes of special educators on how their attitudes compare with regular teachers in regard to the physically handicapped. In view of the increased demand for teachers of the handicapped, concern for selection and training, as well as the development of programs and integration of the handicapped into regular classes, such investigation and comparison of attitudes would seem to be of value.

Physical disability is a problem of increasing concern. Medical advances, and their dissemination throughout the world via public health agencies, have markedly reduced death rates (Davis, 1963). A major consequence is an increase in the number of children with physical disabilities who in previous years would have died in infancy (Myerson, 1963, pp. 2, 3).

Fundamental to both the program of social development, and to the establishment of cooperative exchanges among professionals in the United States, is the acquisition of normative data about attitudes of various "interest groups" toward special education and rehabilitation. This was considered the foremost cross-national research need by the research group of the Second

International Seminar on Special Education at Nyborg, Denmark, in July, 1963.

The Division on Child Development of the Commission on Teacher Education (1945), presented a list of the major deterrents to learning and adjustment that occur. Cain (1949), responding to the report states, "Such a report implies, if these indictments be true of children in general, that the problems are increased for the handicapped child" (p. 276). There has been some awareness on the part of educators in the United States for a long time that the attitudes held by teachers are important to the children they serve. Research of these attitudes has been sparse and lacking in a theoretically relevant base.

A comprehensive research study aimed at uncovering similarities and differences in attitudes toward physical disability, and education must solve difficult methodological and technical problems, both to make research possible within a culture and social system, and to make it comparable. Such a study should have an orienting theory, broad enough to be relevant to researchers, teachers, and other special education and rehabilitation personnel within the various disciplines involved. This theory should make possible the integration of findings into a more general conceptual framework and should increase the power and scope of the study, providing an orienting purpose beyond the immediate practical objectives of the research (e.g., Goode and Hatt, 1952, pp. 9-16).

While being cognisant of this more general framework the theoretical problem to be studied in the present research is restricted to the prediction of certain correlates of attitude. The main focus of study will allow not only an analysis of the relationship between certain variables having to do with interpersonal values, personal contact, and attitude, (but will permit a comparison between a group of special educators and regular teachers.) The comparison will involve an analysis of similarities and differences in attitudes held by the two groups toward the physically handicapped and toward the educational process. The design has the advantage of allowing data to be utilized in several studies in an ongoing international research project.¹

There has not, to this writer's knowledge, been any attempt to determine and compare the attitudes of special educators and "regular" educators either toward the physically handicapped or toward education in general.

Felty (1965), in his pilot study in Costa Rica concerning attitudes toward physical disability and their determinants, demonstrated the comparability of attitudes of specific interest groups. His study developed a methodology and techniques that facilitate such

¹Dr. John E. Jordan, College of Education, Michigan State University has several doctoral students under his direction in the larger international cross-cultural research project.

comparisons. Both the methodology and techniques were used by Friesen (1966) and Mader (1967). The approach in this present study also used the methodology and techniques and the data obtained can be used for comparative purposes primarily with Mader's (1966) study. Such a technique not only increases the amount of data available for comparative purposes, but will ultimately allow for much more comprehensive cross-cultural comparisons. The fact that this data can be utilized in the stated manner represents a secondary objective of this study and lends support to the utilization of the techniques and methods to be described. Furthermore, a broader theoretical base may be established for generalizability and heuristic value.

Statement of the Problem

This study is part of a comprehensive attempt to research attitudes toward the physically disabled and toward education as a social institution. The comprehensive study can be briefly described as being concerned with the interrelationship between:

1. Differing national or socio-economic patterns, that is developing vs. developed nations, rural vs. urban patterns, non-industrialized vs. industrialized nations, etc.;
2. Differing value systems, both intra-national and inter-national;

3. Differing "contact" methods and systems for experience with the social object called "the physically disabled" or "education";
4. Differing norms of the various countries and groups specified in respect to various psychological, sociological, and economic measures and indices.

Underlying the comprehensive study is the assumption that there is value in determining attitudes toward education as a factor affecting the development, funding, and organization of educational programs. It is implicit in this interest that educational programs can be most effectively developed or changed through an awareness of these attitudes.

The purpose of this study is to investigate technical, methodological, and theoretical considerations relating to the investigation of the comparative attitudes of special educators (Mader, 1967) versus regular teachers toward physically handicapped persons and toward education. An attempt will be made to utilize a set of instruments which will elicit attitudes toward disability and toward education and enable a comparison of these attitudes for the selected groups.

The instruments used for this study will be the same as those used by Mader in his study of Attitudes of Special Educators Toward the Physically Handicapped and

Toward Education (1967), which is also part of the comprehensive study at Michigan State University.

The selection of teachers in Michigan provides a population similar in language and culture with the special educators, but with an assumed different orientation toward physical disability. A determination will be made of the extent to which various special educators have differing value systems as compared to classroom teachers as applied to the handicapped. Many investigators of a social-psychological orientation (Barker et al., 1963, p. 103; Gowman, 1957, pp. 47ff, and Wright, 1960, pp. 14-15) have suggested that values are important determinants of attitudes. It is generally assumed that persons who perceive the handicapped as having intrinsic worth are likely to hold more favorable attitudes toward the handicapped than those who view the disabled as having comparative value of an absolute nature. It is necessary that a determination be made as to whether various groups of educators have differing concepts of the intrinsic worth of the handicapped. This study will attempt to determine and compare the attitudes of the regular classroom teacher to the findings for the special education personnel as determined by Mader (1967).

Psychological theory also indicates that the amount and kind of interpersonal contact with a subgroup are determinants of attitudes.

Thus, one problem is to determine whether this particular value-attitude relationship can be obtained. Secondly, the problem is to determine the amounts and kinds of experiences that respondents have with disabled persons and to relate this data to attitude scores. However, another problem will be to determine the relationship of alternatives to contact as determinants of attitude scores.

It will also be possible to gather various kinds of personal and demographic data in addition to the information specified by the main hypotheses of the study. Modern computer analysis techniques make it possible to exploit interrelationships among diverse data of this sort in ways which may provide subsequent researchers with suggestive relationships and may even suggest subsequent research predictions.

Research Hypotheses

The following statement of hypotheses¹ are written in research form for the purpose of expressing in a succinct form the implications of the present study. These hypotheses are concerned with attitudes toward physical disability and toward education.

1. The more frequent the contact with physically handicapped persons, the greater will be the

¹These hypotheses are restated in testable (null) form in Chapter III.

intensity component of the handicapped persons scale.

2. High frequency of contact, personal involvement with the handicapped, and favorable attitude toward the handicapped will be intercorrelated.
3. 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.
4. There will be a positive relationship between high asset values (Gordon Scale B) and favorable attitudes toward physically handicapped persons.
5. There will be a negative relationship between high comparative values (Gordon Scale R) and attitudes toward physically disabled persons.
6. Value scales of Support, Conformity, Independence, and Leadership will be unrelated or negatively related to favorable attitudes toward disability.
7. There will be a positive relationship between progressive attitudes toward education and favorable attitudes toward the physically handicapped.
8. There will be a negative relationship between satisfaction with local institutions (e.g., the status quo) and favorable attitudes toward the physically handicapped.

9. Women will score higher on the value scales of Benevolence, Conformity, and Support than will men.
10. Women will score higher on the Handicapped Persons Scale than men.
11. People working in special education and rehabilitation will score higher on the Gordon Benevolence sub-scale than will other educational groups.

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., Guttman, 1950, Ch. 9; Katz, 1960, p. 168; Rosenberg, 1960, pp. 320, ff). 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. Data on these variables were secured through responses of respondents on questionnaire items.

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.

Physical Disability.--This is a functional term denoting some loss of the tool function of the body. In the English version of the scale the term "handicapped" was used since this appeared to be a more meaningful terminology. The technical distinction between handicap and disability is perhaps not a very meaningful or significant one to a lay person.

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

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.

Occupational Personalism.--This term is operationally defined by questionnaire items designed to ascertain: first, about what per cent 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).

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 with state approval as a diagnostician who are currently serving in state approved programs for the mentally retarded.

Elementary Classroom Teacher (K-6).--Individuals possessing a valid Michigan Teacher's Certificate to teach kindergarten through the sixth grade and currently teach in the public schools of Michigan.

Secondary Classroom Teacher (7-12).--Individuals possessing a valid Michigan Teacher's Certificate to teach in grades seven through twelve and currently teach in the public schools of Michigan.

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 (Almond and Coleman, 1960).

CHAPTER II

BACKGROUND OF THEORY AND RELATED RESEARCH

Much of the research in special education and rehabilitation emphasizes applied, descriptive studies which use instruments and techniques individually designed for a given study and which consequently lack generality and theoretical relevance. Various investigators in special education and rehabilitation have urged more attention to theory and generality of results. This suggests that attitude studies in special education and rehabilitation should take account of general psychological and social psychological findings in respect to attitudes--their formation, structure, and effects--and should if possible use concepts and instrumentation in testing hypotheses which can be applied by other investigators.

Mader (1967) pointed out in his comprehensive review of the literature that he found no study that attempted to determine attitudes held by special educators toward physically handicapped children. It was further indicated that no research had made a comparison of the attitudes of special educators with "regular" classroom teachers in regard to physical disability or education in general.

General Theoretical Considerations

The term theory is considered at a level of partially verified propositions which have been placed within a perspective which suggests a kind of interrelationship and order among them. These propositions are what are referred to by Zetterberg (1963, p. 21) as "ordinary," rather than theoretical, with a varying degree of information value. A standard research text suggests several ways in which theory may serve as a tool of scientific research. These are consistent with the use of theory in this study:

- (a) it defines the major orientation of a science, by defining the kinds of data which are to be abstracted;
- (b) it offers a conceptual scheme by which the relevant phenomena are systematized, classified, and interrelated;
- (c) it summarizes facts into empirical generalizations and systems of generalizations;
- (d) it predicts facts; and
- (e) it points to gaps in our knowledge (Goode and Hatt, 1952, p. 8).

The following sections discuss the theoretical orientations of the study, how these relate to the field of physical disability and education, and some empirical findings which seem to be of significance within the particular theoretical orientation. These are the considerations responsible for the research hypotheses.

Empirical Research Relating Value and Personal Contact to Attitude

Values have been considered important sources of prejudice, or negative stereotype by Allport (1958).

The most important categories a man has are his own personal set of values. He lives by and for his values . . . evidence and reason are ordinarily found to conform to them . . . the very act of affirming our way of life often leads us to the brink of prejudice (p. 24).

Man has a propensity to prejudice. This propensity lies in his normal and natural tendency to form generalizations, concepts, categories, whose content represents an oversimplification of his world of experience (p. 26).

"One type of categorization that predisposes us to make unwarranted prejudgments is our personal values" (p. 27).

Katz (1960) suggests another approach relating attitude to value in which attitudes are considered to have a "value-expressive function" (p. 173). They confirm and clarify to others and to the person himself those things most important and central to his image. Katz views the relatedness of attitude to value in terms of attitude change, pointing out that "people are much less likely to find their values uncongenial than they are to find some of their attitudes inappropriate to their values" (p. 189). Thus, consistency between basic values ("equality") and more specific attitudes (e.g., "favorableness toward opportunities for disabled persons") would be expected, as persons would be generally more inclined to change or give up attitudes inconsistent or unrelated to central values.

An instrumental relationship between attitude and value has been demonstrated. Stable positive attitudes are perceived as instrumental to positive value attainment and the blocking of negative values, whereas stable

negative attitudes were perceived as instrumental to negative value attainment and the blocking of positive values. "The individual tends to relate positive attitude objects to goal attainment and negative attitude objects to frustration of his goal orientation" (Rosenberg, 1960, p. 321). Moderate attitudes (as compared to intense ones) were related to less important values, or in the case of important values the perceived instrumentality of the attitude to value attainment was unclear to the subject.

Rosenberg's analysis enabled him to broaden the concept of attitude to include both the positive-negative affective component and the belief component. Typically, attitudes have been concerned with the former, and beliefs considered separately; e.g., Allport (1958, pp. 12-13) in considering prejudice, states: "There must be an attitude of favor or disfavor; and it must be related to an over-generalized (and therefore erroneous) belief." Osgood (1957, p. 190) has restricted "attitude" to mean "the evaluative dimension of the total semantic space."

Several attitude research studies by Cartwright (1949), Smith (1949) and Guttman (1950) have evidenced a preference for a broad concept of attitude.

Further research discussed by Rosenberg (1960, pp. 325-330) involved hypnosis and post-hypnotic suggestion in respect to changing either belief or affective components and measuring related changes. While his conclusions were

concerned primarily with attitude structure and change, they also support the previously discussed research suggesting that the instrumentality of a belief to a valued goal is associated with a corresponding and direction-related affective component.

Carlson (1956), studied changes in prejudicial attitudes (including affective and belief components) toward Negro mobility according to perceived instrumentality to a value involving property valuation. Attitudes became more favorable toward Negro movement into white neighborhoods as subjects' beliefs were changed from the view that Negroes tend to lower property values, to the view that Negroes tend to raise property values. The change was ascribed to an inconsistency between the cognitive (belief) component and the affective value component.

Theoretical Framework

Attitudes Toward Physical Disability

As in the study by Mader (1967) an attempt will be made to utilize the theoretical constructs developed by Fe lty (1965) in his pilot study of attitudes toward physical disability in Costa Rica.

The major theoretical orientation of the present study will be a social-psychological approach to physical disability. The basic premises of this theoretical framework are consistent with symbolic interactionism (Wright,

1960). Symbolic interactionism emphasizes the importance of the give and take of interpersonal activity--especially in regards to symbol. There is a focus on rational, orderly processes rather than irrational processes. The important constructs are those of self or person; other, group, or reference group; attitude, social role, and value, all as defined by the perceptions of the actor. Within this framework, disability may be thought of not as an objective thing-in-itself, but a social value judgment. Only the concepts of attitude and value will be explored fully in this study. Certain roles in society have high value for maintaining the social system, and people are generally esteemed according to how they are perceived to fulfill valued social roles, thus attitudes toward disability should vary according to the kinds of social roles perceived to be important to the individual, or collectively to the society.

In particular, the theory of Festinger would suggest that attitudes that are dissonant to a value orientation would tend to be abandoned, whereas consonant attitudes would be maintained (Rosenberg, 1960). Consistent generally with symbolic interaction, is the idea that actual contact with others is an important determinant of attitudinal evaluation of them (Allport, 1958).

However, frequency of contact is not related to evaluation in any simple sense. Contact frequency has been found

to be related directly to intensity of attitude (Guttman and Foa, 1951). Whether it is also related directly to a positive evaluation of the person seems to depend on intermediate variables such as the social status of the persons contacted, the absence of coercion in the interaction, and the availability of alternate kinds of reinforcing activities (Zetterberg, 1963).

The underlying assumptions, according to Shibutani (1961, pp. 22-25), are as follows:

1. Behavior is motivated through the give and take of interpersonal adjustment, both the person and society are products of communication.
2. Personality is continually reorganized and constructed in the day-by-day interactions with others.
3. Culture consists of models of proper conduct hammered out and reinforced by communications and by collective grappling with life conditions.

Underlying all these assumptions is a belief in the rational, active nature of man as a determiner of his own fate and that of society. Our concern will be with the broad context of interpersonal contact, value organization, and role behavior, as determined by perceptions of the subjects, and their attitudinal implications.

A central concept of social psychology is that of attitude. Katz and Stotland (1959, p. 466) in a review and systematization of the concept, state:

An adequate social psychology must include the concept of attitude or some very similar construct. . . . Efforts to deal with the real world show our need for a concept more flexible and more covert

than habit, more specifically oriented to social objects than personality traits, less global than value systems, more directive than beliefs, and more ideational than motive pattern.

Levine suggested that disability is not a thing in itself but a social value judgment and proposed the relevance of this frame of reference for understanding of physical disability.

These (i.e., social role, role perception, role value and attitude) values are related to society's perception of being a good citizen, being a family head and other essential aspects for maintaining a society. These values are criteria against which behavior is assessed in terms of deviation. All members of society, whether handicapped or not, are evaluated primarily by these values. Where an individual cannot meet these demands, or where there are questions as to the adequacy of the individual in relation to these demands, there will be some devaluation of him on societies' part (Levine, 1961, p. 84).

From this perspective, persons with some defining characteristic such as blindness, crippling condition, color, etc., are categorized according to how others perceive them to maintain certain valued social roles.

A conceptual value framework should also be utilized for the suggestions it offers in respect to dominant value characteristics as specifically related to attitudes toward physical disability. Values can be clustered according to whether they are derived from: (a) comparisons, or from (b) intrinsic assets (Dembo, Leviton, Wright, 1956; Wright, 1960).

If the evaluation is based on comparison with a standard the person is said to be invoking comparative values. . . . On the other hand, if the evaluation arises from the qualities inherent in the

object of judgment itself, the person is said to be invoking asset values. What matters is the object of judgment in a setting that has its own intrinsic purposes and demands. The person's reaction is then based upon how appropriately the situational demands are fulfilled rather than on comparison with a predetermined standard (Wright, 1960, p. 129).

✓A reasonable inference from the asset-comparative value framework, is that those persons working in the field of rehabilitation and special education would be expected to hold higher asset values than those working in other occupations, including regular classroom teachers.

Attitudes Toward Education

That attitudes have relevancy to educational concerns is suggested by the consistent inclusion of the topic attitude in the various editions of the Encyclopedia of Educational Research. Stagner (1941, p. 77) has stated:

Many studies have shown a relationship between attitude and information in a given area, suggesting that people acquire most readily facts which are congruent with their views. Attitudes are, therefore, basic to many educational activities. Attitudes are also products of education; our progress toward democracy at home and international cooperation abroad will depend upon the attitudes developed in children at school.

In special education and rehabilitation, attitudes have been found related to the willingness of teachers to accept certain kinds of handicapped children in regular classes (Haring et al., 1948) to acceptance-rejection by other children to parental behavior, and to many other types of behavior (as reviewed in Barker et al., 1953; Cruickshank, 1963; Wright, 1960).

Current literature has devoted much effort to the exploration of the relationship of education to innovation and social change. However, Friesen (1966) pointed to the limited theoretical discussion about the basic dimensions underlying attitudes toward education.

The following comments by Miles are pertinent observations:

A very wide variety of strategies for creating and controlling educational change is being employed. . . . The dominant focus in most contemporary change efforts, however, tends to be on the content of the desired change, rather than on the features and consequences of change processes. . . . We need to know, for example, why a particular innovation spreads rapidly or slowly, what the causes of resistances to change are in educational systems, and why particular strategies of change chosen by innovators succeed or fail (Miles, 1964, p. 2).

In an attempt to determine the attitudes of respondents toward education Felty (1965), Friesen (1966), and Mader (1967) utilized a scale developed by Kerlinger in 1956. The effort to make comparisons between this present study and Mader's (1967) will be facilitated by following the theoretical model developed by Kerlinger in 1956 and expanded as reported in his 1967 article.

According to Kerlinger (1956):

A basic dichotomy seems to exist in educational attitudes corresponding generally to restrictive and permissive, or traditional and progressive ways of regarding education, and some individuals show the dichotomy more sharply than others depending on their occupational roles, their knowledge of and experiences with education, and the importance of education to them (p. 312).

Kerlinger defines the restrictive-traditional factor as that which emphasizes subject matter for its own sake. The hierarchical nature of impersonal superior-inferior relationships is considered important and there is an emphasis on external discipline. Social beliefs are preserved through the maintenance of the status quo.

In contrast, the permissive-progressive factor emphasizes problem solving and de-emphasizes subject matter per se. From this perspective, education is seen as growth and the child's interest and needs are seen as basic to education. Equality and warmth in interpersonal relationships are valued. There is an orientation to internal rather than external discipline. Social beliefs tend to be liberal and emphasize education as an instrument of change (Kerlinger, 1958, p. 112).

Kerlinger's theory can be summarized in the following four propositions which indicate the relationship between attitudes and educational values:

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 differential 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).

Attitude Intensity

Rosenberg has considered the intensity component of an attitude as an action predictor (1960, p. 336). Carlson (1956, p. 259) found initial intense attitudes much more resistant to change than moderately held attitudes. Guttman and Foa (1951) have shown that intensity is related to amount of social contact with the attitude object.

Considering the question of relationships between attitude and action, Rosenberg states:

In the face of . . . (a) limitation in present knowledge, what is usually done is to follow a theoretical rule of thumb to the effect that the "stronger" the attitude, the more likely it will be that the subject will take consistent action toward the attitude object . . . the more extreme (and thus, following Suchman, the more intense) the attitude, the stronger must be the action-opposing forces for the action to fail to occur in the particular attitude-eliciting situation in which those forces are operative . . . improvement in the validity of estimates of attitude intensity will increase the likelihood of successful prediction (Rosenberg, 1960, p. 336).

In summary, intensity has been established as an important attitude component, increasing predictability. It apparently varies both with related value intensity (Rosenberg, 1960, p. 321) and with amount of contact (Foa, 1950; Guttman and Foa, 1951).

In addition to the important function of increasing predictability, attitude intensity locates the true zero-point of a scale in which the area of content has been found to be scalable (e.g., Guttman, 1947). Locating a true zero-point appears to have the highly desirable characteristic of elimination of question bias (Foa, 1950; Suchman and Guttman, 1947; and Guttman, 1954b). The present study as in the Mader (1967), research of special educator attitudes will utilize a simple approximation of the intensity function by asking "How strongly do you feel about each particular item?" 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).

Personal Contact

The general relationship that the more frequent the contact between persons or groups, the more favorable the attitude with the converse also held to be true was suggested by Homans (1950, p. 112).

Allport (1958, pp. 250-268) devoted a chapter to research on various kinds of intergroup contact. He concluded that "equal status contact" creates more favorable attitudes when the contact is in pursuit of common goals (p. 267). Casual contact is unpredictable in effects, but may serve to reinforce adverse stereotypes (p. 252). Status was also found to be significant. In studies of attitudes toward Negroes, those having contact with high status or high occupational group Negroes held more favorable attitudes than those having contact with lower status Negroes (pp. 254, 261-262). Since the physically disabled can also be viewed as a minority group (Tenny, 1953), and are perceived as high or low in status (Simmel, 1966) Allport's study has relevance to the present study.

Jacobson et al. (1960, pp. 210-213) considered research related to intergroup contact, particularly between cultures. He suggested that equal status contacts (as discussed by Allport, above) are more likely to develop

friction (i.e., result in unfavorable attitudes) if the basis of the status equality is unsure; i.e., if one group does not fully accept the equality which is felt by the other group.

Zetterberg (1963, p. 13) has reviewed social contact considerations of Malawski in which the effects of frequency of social contact on liking or disliking are dependent on two other variables: "cost of avoiding interaction, and availability of alternative rewards . . . if the costs of avoiding interaction are low, and if there are available alternative sources of reward, the more frequent the interaction, the greater the mutual liking." From the reference point of the actor these propositions seem related to perceived freedoms or constraints to interact with another, and to his valuations and selection of this interaction over other activities perceived as rewarding.

The foregoing might be summarized as follows: frequent contact with a person or group is likely to lead to more favorable attitudes, if:

1. Frequency of contact with the physically disabled is increased (Homans, 1950, p. 112),
2. The contact is between status equals in pursuit of common goals (Allport, p. 267),
3. The contact is perceived as instrumental to the realization of a desired goal value (Rosenberg, 1960, p. 521).

4. Contact is with members of a higher status group or where the disability lacks visibility (Allport, 1958, pp. 254, 261-262),
5. If the contact is among status equals and the basis of status is unquestioned (Jacobson et al., 1960, pp. 210-213),
6. If the contact is volitional (as reinterpreted from Zetterburg, 1963, p. 13),
7. If the contact is selected over other alternatives (as reinterpreted from Zetterburg, 1963, p. 13).

Empirical Research on Attitudes

Toward the Physically Disabled

There have been a number of studies considering attitudes toward specific kinds of physical disability or impairment in specific settings in the United States) These studies have been reviewed in Barker et al. (1953), Cruickshank (1955, 1963), Wright (1960) and in other general reference works. Only those studies relevant to the present discussion will be considered.

G. Haring et al. (1958) found that workshop attempts to modify teacher attitudes (both verbal and behavioral) toward disabled children were more effective where teachers maintained regular contact with these children. This suggests a possible interaction between information and

contact in relation to attitude toward a subordinate group, provided that information requires a change in beliefs.

From the reaction of those teachers who had few opportunities for actual experiences with exceptional children, it appears that the threat of having to modify behavior is more anxiety-producing than the real process of change itself (p. 130).

The effort of a formal attempt to modify attitudes whether through mass media or a workshop, seems only to increase the anxiety and to provide a specific focus for the expression of rejection and the development of organized resistance. When specific experiences are provided, the actual problems that arise can be dealt with directly (p. 131).

One of the most comprehensive analysis of the attitudes of educators toward exceptional children was conducted by Haring, Stern, and Cruickshank (1958). They attempted to measure the amount of existing information concerning disability held by the respondents as well as their attitudes toward various disabilities. As a result of their attempt to change information levels and modify attitudes, they reported significant changes in the level of information and attitudes toward disability. They indicated that the teachers were able to modify their attitudes toward some kinds of handicapping conditions more easily than toward others. Specifically of interest to the present study is their observation that:

The significant difference 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., 1958, p. 117).

Studies by several authors (Bodt, 1957; Dickstein and Dripps, 1958; Force, 1956; Haring et al., 1958; Kvaraceus, 1956; and Murphy, 1960) consider preferences for different disability groupings in various specific situations. Bodt, Dickstein and Dripps, Kvaraceus and Murphy, all studied preference for teaching particular groups over others by means of group rankings. In general, the gifted were most preferred while mentally handicapped and maladjusted children were least preferred. Physically disabled children were in between. Bodt found that in general physically disabled children were personally accepted as playmates for respondent's children, whereas mentally retarded and disturbed children were not. Dickstein and Dripps, and Murphy, found that where people have an educational speciality (e.g., such as speech therapy), children with a related disorder (e.g., with speech pathology) are most preferred as a student group. In general, there was a tendency to prefer to work with those best known. Respondents included teachers, principals, and speech therapists in addition to students.)

Findings in the studies by Haring et al. (1958, p. 38) have important implications for the present study. The respondents were considering acceptability of children for regular school programs, so that mechanical considerations of class management were undoubtedly influential, as well as personal reactions. Only those children with

mild hearing disorders and with leg crippling--if the latter were ambulatory by crutch or wheelchair--were considered educationally acceptable (pp. 40-41), although others were functionally capable of such placement.

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

Force (1956) attempted to determine the social position of physically handicapped children among normal peers. He found that the handicapped children are not as well accepted as normal children at the elementary school level.

~~More recently~~ Warren, Turner, and Brady (1964), and Warren and Turner (1966), have reported rank order acceptance and/or most visably handicapped are least socially acceptable. Generally, the nonhandicapped individual enjoys the greatest social acceptability.) Similar results were indicated by Jones, Gottfried, and Owens (1966) and Goodman, Dorabush, and Hastorf (1963).

In a study of the connotative reactions of college students to disability labels, Semmel and Dickinson (1966) 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 contact with the

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handicapped and mean scores on the Connotative Reaction Inventory.

Roeher (1959) found that both social contact and increased factual information lead to increased acceptance and tolerance of disabled persons.

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

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

→ An investigation by Murphy (1960) into the attitudes of various groups of educators toward the handicapped has a relationship to the present study. He suggested that a positive trend correlation exists between how much a teacher "thinks" he knows about a specific area of disability and his attitudes toward a specific disability.)

It was observed by Fenderson (1964) that while teachers of the handicapped must be skilled in applying learning techniques, they must also display a genuine interest in the child. He emphasized that teachers' attitudes toward

the handicapped can be evaluated through utilization of the principle that handicapped persons have a right to dignity, they have needs and feelings, and they can and do grow up.

Jones and Gottfried (1966) determined that special education teachers as a group have high prestige when judged by other teachers. It was noted that teachers of the educable retarded rated themselves lower than the regular classroom teachers rated them. It was speculated by the authors why more teachers do not enter special education:

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).

Hanks and Hanks (1948) attempted a systematic analysis in an attempt to determine relationships between structural and functional characteristics of several non-occidental societies. They concluded that the physically disabled are better protected and have more participation in societies where:

(a) the level of productivity is higher in proportion to the population and its distribution more nearly equal, (b) competitive factors in individual or group achievement are minimized, (c) the criteria of achievement are less formally absolute as in hierarchial social structures and more weighed with "concern for individual capacity, as in democratic social structures (pp. 19-20).

According to Tenny (1953) there are similarities between the handicapped and other minority groups in our society. These similarities can be summarized:

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.

In a critique of Tenny's position Berreman (1954) pointed out that there are important differences as well as similarities. Among these are:

1. The child from a minority group identifies with the group and gains strength from it. This would not be the case with the physically handicapped child.
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 people who are prejudiced against the disabled also tend to be prejudiced against ethnic groups.) Previous research by Holtzman, 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, it was noted that there was a tendency for those with favorable attitudes toward the church to be less tolerant toward the Negro.

A study by Whiteman and Luckoff (1962) was concerned, among other things, with attitude structure and personal value orientations. Because of the theoretical foundation of the research, it has more than the usual degree of generality and relevance to other attitudinal studies, including those related specifically to blindness, more generally to physical disability, and to the field of attitude research in general.

Felty's study (1965) of attitudes toward physical disability in Costa Rica served as the pilot study for a number of cross-cultural investigations currently underway at Michigan State University under the direction of Dr. John E. Jordan. The present study and Mader's (1967) are included in that number. The occupational interest groups

are varied, but the hypothesis of these studies are essentially the same and allow for comparisons of data.

Felty found that when intensity scores were plotted against content scores, the predicted U or J shaped curves were obtained. He noted, that not enough content total score categories were obtained around the "bending points" of the curve to define with precision where the scales should be divided into favorable and unfavorable sections.

The hypothesis that "leadership" value would be negatively related to "Attitudes Toward Disabled Persons" scores was considered confirmed. A significant negative correlation was obtained. It was also predicted that the rehabilitation and special education group would have more positive "Attitudes Toward Disabled Persons" scores than the other occupational groups. This proved to be the case as far as the executive group and the labor group were concerned. The education group, however, scored higher on this scale than did the rehabilitation and special education group.

Felty hypothesized that persons who score high in need for power and control over others will tend to score low in acceptance of disabled persons. He reported that his study appeared to confirm the negative relationship between comparative values and acceptance of the disabled, however, the positive relationship between asset values and acceptance of the disabled did not seem to be supported.

On the attitude variables, Felty found significant differences between males and females. For example, males tended to be more traditional in their orientation toward education and place more emphasis on basic subject matter and on discipline than did their female counterparts. Conversely, females were more inclined to accept progressive, child-centered ideas. He cautioned that since the educator group was largely female that although they scored high in progressivism and low in traditionalism there is question as to whether this is primarily an occupational characteristic or a genuine sex difference.

The study of major interest and relevance to the present research was conducted by Mader (1967) with a primary focus of evaluating the attitudes of sub-groups of special educators toward the handicapped and toward education. The secondary purpose stated by Mader was that the collection of data on special educators would be done in a manner that it could be incorporated in a comparative study such as was undertaken in this current study.

Results of Mader's (1967) study indicate that when the attitudes of sub-groups of special educators toward the handicapped were compared by sex and by groups no significant differences were obtained. This was also true of the comparison of the Benevolence and Recognition values held by the various sub-groups when scores representing each of these values were compared with scores

of other groups reported by Gordon (1960). 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 findings also indicated that when the total special education group was compared by sex the females held higher Benevolence values than the males.

The comparison of Mader and Gordon is in agreement with Jordan (1963) who has suggested that in Latin America, those persons actively engaged in the areas of rehabilitation and special education differ in values from the majority. In discussing these differences, he has drawn on the work of Almond and Coleman (1960) in the characterization of various types of groups and associations in society, and also on the work of Rogers (1962) and Katz et al. (1963) in the characteristics and process of innovation diffusion. Both Rogers, and Almond and Coleman, have drawn on the sociological typologies. No attempt will be made here to summarize this vast literature, or the detailed analysis underlying the conclusions. However, Jordan has hypothesized that rehabilitation and special education groups in Latin America are characterized by modern social values of "democracy, constitutionalism, humanism, the scientific process and universal suffrage" (p. 17) and, more generally, by "specificity, universalism, achievement, and affective neutrality" (1963).

Toward Education

Kerlinger has noted that the problem of the consistency and inconsistency of an individual's attitude is still largely unsolved (Kerlinger, 1956, p. 296).

As a result of the implications of these observations, Kerlinger designed a study which examined the educational attitudes of professors and laymen. The sample consisted of 25 subjects chosen on the basis of occupational roles as well as known attitudes toward education.

He developed the following categories for the study:

ATTITUDES:

1. Restrictive-traditional
(dependence-heteronomy)
2. Permissive-progressive
(independence-autonomy)

AREAS:

- a. Teaching-Subject Matter Curriculum
- b. Interpersonal Relations
- k. Normative-Social (conventionalism-nonconventionalism)
- m. Authority-Discipline

An example of 1 (a) would be: 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. An illustration of 2 (a) would be exemplified in the following statement: Knowledge and subject matter

themselves are not so important as learning to solve problems. An illustration of 1 (m) might be: One of the big difficulties with modern schools is that discipline is often sacrificed to the interest of the children. An example of 2 (m) might be: True discipline springs from interests, motivation, and involvement in live problems.

Kerlinger warns that the restrictive and permissive dimensions are rarely opposites nor merely positive and negative assertions of the same thing. Each category is presumably independent (Kerlinger, 1956, p. 296).

The results of the Kerlinger (1956) study indicated that occupational roles and role expectations are potent independent variables influencing attitudes and visa versa. Individuals having similar roles might be expected to have similar attitudes and a similar attitude structure. Evidence by Kerlinger (1967) further supports these contentions.

Smith, a student of Kerlinger, designed a study in which she hypothesized that progressivism and traditionalism were basic dimensions of educational attitudes that would emerge and remain factorially invariant under different conditions of item sampling and subject sampling.

Smith further hypothesized a relationship between attitudes toward education and general social attitudes. Thus individuals holding progressive educational attitudes would tend to be liberal in their social attitudes and

visa versa. Individuals conservative in their social attitudes would be expected to be traditional in their educational attitudes.

In two Q-sorts consisting of a total of 140 attitude statements relating to all aspects of education, she found that progressive and traditional factors of the Q-sort did indeed remain invariant. Other factors which emerged from one of the sorts were labeled as "moral values" and "interpersonal relations."

On the third Q-sort, she found that liberalism and conservatism did emerge as basic dimensions of social attitudes and were highly related to educational attitudes in the direction of the hypothesis. Two other factors which emerged from the third Q-sort were labeled as "Internationalism" and "Religious Tenents" (Smith, 1963).

The Intellectual-Pragmatism Scale (I-P) was developed by Block and Yuker (1965) to measure intellectual attitudes. Although they did not define intellectualism, it can be contextually inferred that it is an intellectual orientation resulting from academic exposure. It is pointed out that intellectualism was found to be associated with a progressive attitude toward education as measured by the Kerlinger Education Scale. Contrary to expectations, however, I-P scores were not related to Kerlinger's Traditionalism Scale.

The Intellectualism scores were also positively correlated with scores on the Attitudes Toward Disabled Persons Scale (developed by Yuker et al., 1960). The students who changed most in their attitudes toward disabled persons, as measured by the Attitudes Toward Disabled Persons Scale, were the ones who scored highest on the intellectualism scale.

It was concluded by Block and Yuker (1965) that education (at least some types of education) brings about attitude changes in students that are related to a greater intellectual orientation.

Kramer (1963) used Rokeach's Dogmatism Scale and Kerlinger's Education Q-Sorts in an effort to measure the interrelation of belief systems and educational values of school teachers. The results indicate that "open-minded" teachers as a group were more consistent and held permissive-progressive attitudes. He also found that the more "open-minded" a teacher's belief system was, the greater the likelihood for internal consistency of an educational attitude structure in a progressive direction.

While the "close-minded" teachers were less consistent than the "open-minded" teachers, they were more consistent than those who had no clear cut belief system.

Kerlinger's Education Scale II was used to study the relationship between basic education attitudes and participation in professional teacher activities by Taylor (1963).

She was also interested in the relationship of basic educational attitudes to educational background of teachers. She found that teachers with border-line traditional attitudes participated less in activities related to pupils than did teachers in other categories (such as traditional, progressive border-line, progressive). She also found that 29 per cent of the teachers had attitude scores that almost certainly indicated either traditionalism or progressivism.

Lawrence (1963) also used Kerlinger's Education Scale II to measure both progressive education attitudes and attitudinal consistency. It was reported that this scale did not seem to differentiate progressive and traditional attitudes toward education.

Hand (1964) studied teacher characteristics associated with changed attitudes and performance in the teaching of reading. She found that a tendency toward more progressive beliefs was a factor associated with change in teacher's attitudes.

Teaching methods, as well as content, were found important in trying to change attitudes of perspective teachers by Purcell (1964).

Anderson (1964) studied the changes in attitudes of prospective teachers toward education and teaching in secondary schools and found that student teachers, for the most part, did not change attitudes toward education and teaching. She concluded that the extent and direction of

change seems to depend on the degree to which the students perceive existing school and community objectives, policies, and relationships.

Successful educational innovation and programing, in a large measure, depends upon the degree of acceptance and cooperation of the educational staff. It was concluded by Classon (1963) in her study of elementary teachers' attitudes that a careful study of attitudes is a necessity before attempting to improve or develop any educational program.

The Measurement of Attitudes

General Considerations

As in the study by Mader (1967) attitude has been 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 may consist of many forms of behavior which are more or less intercorrelated and which form separate subuniverses. An adequate attitude abstraction from this universe should include sampling from each of the possible sub-universes, a task of doubtful 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. There will probably be a relationship between the statements one makes

about a person with a disability, and how one behaves overtly toward that person, but the relationship cannot be assumed without empirical support.

Green (1954, pp. 335-336) made three important points about 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" (p. 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. The approach to attitude assessment known as scalogram analysis (Guttman, 1950, Ch. 3) is consistent with the above considerations, and it is this approach which has been used in the pilot study with respect to the attitude variables employed and will be utilized in this present study.

Scale Analysis

The following brief summary of scale analysis is not intended to be exhaustive, but merely to present a rationale and an outline of the approach used in this study. A basic reference to this material is the writing of Guttman (1950). Comprehensive discussions of the technique in respect to other scaling methods are to be found in Edwards (1957), Green (1954), and Goode and Hatt (1952). Riley et al. (1954) presents certain information in respect to technique not available elsewhere, and Riley (1963) and Waisanen (1960) presented simplified techniques for introductory work with the method.

Scale analysis provides a method for determining whether a set of items can be ordered along a single dimension. If a particular attitude universe is really one-dimensional, any sampling of items from it should also be one-dimensional, and should provide an ordering of respondents essentially the same as that provided by any other sampling of items from the universe. If the predicted ordering does not occur, the universe is judged to be multi-dimensional and consequently not scalable. It is possible, of course, that items have been included which do not refer to the universe of content. These non-scale items might be excluded; however, item exclusion must be exercised with caution (Green, 1954, p. 357). If items do suggest an underlying single dimension, it is meaningful to

describe a respondent with a higher total score as possessing more of the characteristic being measured than someone with a lower total score. Most important, if scale properties are obtained, this provides evidence for the existence of a defined body of opinion in the respondent group in respect to the particular area of measurement involved. The fact that item scales are obtained in each of two or more countries being compared is evidence for concept equivalence, regardless of variation in the content of the particular items in the scales from one nationality group to another.

In Guttman scaling, the focus is on the ranking of respondents rather than on the ranking of items. "We shall call a set of items of common content a scale if a person with a higher rank than another person is just as high or higher on every item than the other person" (Guttman, 1950, p. 62). The individual item responses of every respondent should be reproducible (with about 10 per cent error allowable) from a knowledge of his total score rank. The amount of error which is allowable in reproducing item scores from a knowledge of respondent total score rank has been somewhat arbitrarily established at 10 per cent, although Guttman has shown that if the errors are random in a given sample of 100 persons and 5 dichotomous items, the population reproducibility should not vary more than 4 or 5 per cent from the reproducibility coefficient of the sample (1950, p. 77).

Guttman has also described the quasi-scale,¹ which may occur when the reproducibility of a scale is lower than the required 90 percent, but when the errors occur in a random pattern. Stouffer (1950, p. 5) notes that

. . . the correlation of the quasi-scale with an outside criterion is the same as the multiple correlation between responses to the individual items forming that scale and the outside criterion [which] justifies the use of sets of items from an area not scalable in the strictest sense.

It should be pointed out that the criterion of 90 per cent reproducibility is no more an absolute standard than is the selection of an alpha of .05 for a test of significance. For some purposes a lower limit may be satisfactory, for others a higher limit may be a necessity. The important criteria in respect to scale error would seem to be the random nature of occurrence of the errors.

The error pattern of the quasi-scale question is recognizable from the manner in which the fairly large number of errors that occur gradually decrease in number as one moves further and further away from the cutting point.² These errors . . . do not group together like non-scale errors (Suchman, 1950, pp. 160-161).

This appears to be the error pattern obtained on the scales used in the present study.

¹The analysis of scales employed in the present study would appear to place them in the category of quasi-scales.

²The "cutting point" refers to the point at which the "favorable" (or, e.g., "yes") responses to an item, can be divided with the least amount of error from the "unfavorable" (or, e.g., "no") responses to an item, when the respondents have been ordered on the basis of total score for all items in the scale.

CHAPTER III

METHODOLOGY AND PROCEDURES

The purpose of this study was to attempt a comparative analysis of the attitudes of special educators and regular classroom teachers 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 pilot study conducted in San Jose, Costa Rica. Friesen (1966) and Kreider (1967) further refined the design in studies of the nature and determinants of attitudes toward education and the physically handicapped in South America and Europe respectively.

As has been previously indicated, no research has been found which attempted to determine and compare the attitudes of special educators and regular classroom teachers. For the purpose of this study the following groups of special educators as set forth by Mader (1967): (a) teachers of the educably retarded, (b) teachers of the trainable retarded, (c) visiting teachers (school social workers),

¹See Footnote 1, Chapter I, p. 7).

(d) diagnosticians, (e) teachers of the visually handicapped, (f) teachers of the auditorily handicapped, and (g) speech correctionists will be compared to elementary and secondary regular classroom teachers in respect to attitudes toward the physically handicapped and toward education in general.

Research Population

General Considerations

A comprehensive description of the sub-groups of special educators is given in the study by Mader (1967). All educators included in his sample held provisional or permanent certification or the equivalent as teachers with the Michigan Department of Education. In addition, to this qualification each was approved in his particular area of special education.

Mader administered the questionnaires at state and county workshops held for special educators 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 (three-hundred-forty eight) attending the workshops participated in the study" (Mader, 1967).

In order to make a comparison of attitudes of special education personnel and regular classroom teachers there were several general considerations involved. In the

research population for this present study all of the elementary and secondary teachers held provisional or permanent certification or its equivalent. Secondly, as nearly as possible a random sample of teachers was taken from the geographic areas of Michigan represented in the study by Mader (1967). Both studies will have taken a population sample from Michigan Public Schools. For this present study a sample of two hundred regular classroom teachers were randomly selected from each of the following: (a) Elementary Classroom Teachers of grades K-6 and, (b) Secondary Classroom Teachers of grades 7-12.

The elementary classroom teacher was a male or female respondent who was teaching a class of children at the kindergarten level or any grade or combination of grades through the sixth grade. The secondary classroom teacher was a male or female respondent who was teaching a class or combination of classes from the seventh grade through and including the twelfth grade.

The elementary classroom teacher's sample consisted of 161 respondents. The sample of secondary classroom teachers was composed of 149 respondents. The total of 310 respondents represents a 78 per cent return of the questionnaire.

Selection of Variables

The selection of variables for this study are those suspected to have some particular relationship to the

criterion variables of attitudes toward education as a social institution, and attitudes toward the physically handicapped. The selection of variables was dictated from the theoretical considerations reviewed in Chapter II. Demographic variables were included because of well-established sociological methods in the research of group interaction. Other variables were included, however, which were intended to provide information in respect to the characteristics of the two groups of respondents: (a) education personnel, and (b) those who work with the handicapped. These variables are those of: (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 Attitudes Toward Disability Scale (Yuker et al., 1960). Adequate test-retest reliability scores were reported, and various construct validity measures which were all collected from disabled employees of Abilities, Inc. of New York, a light manufacturing company which employs disabled workers. 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 has questionable generality and the rationale for item selection is not clear, the test represents an attempt to fill a gap in the field and deserves further study. It seems to be the only instrument available to measure attitudes toward disability.

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 that instead of requiring the respondent to transfer a number from a set of coded categories at the top of the page to indicate his response the item alternatives were stated following each question (Appendix A-5). It was felt that these modifications would simplify the task for the respondent. Since it was intended to submit the items to scale analysis rather than follow the suggested scoring system, there was no need to retain the same numerical scores.

Fifteen of the 20 attitude items are statements of differences between disabled persons and those not disabled, and agreement with those statements is interpreted as reflecting an unfavorable attitude.

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 were included for two reasons: first, because there is a rationale for hypothesizing a relationship

between progressive attitudes toward education and positive attitudes toward physical disability; and second, because they are short and simple to administer. The scales represent a factor analysis of a set of 40 items given to 598 subjects of varying backgrounds, but all apparently of above average education. The scales have been found to hold up under cross-validation; however, there is no indication that persons of lower educational attainment have been adequately represented in the studies. A surface examination of the items (Appendix A-5) suggests that some of them may be somewhat overly complex and difficult for many people. The complete instrument consists of 20 items, of which 10 are "progressive," and 10 "traditional." As employed in this study, the progressive and traditional items were analyzed independently as two separate scales.

The Intensity Scales

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 such content question yields a series of intensity answers. Using the same procedure as . . . for content answer, these are scores and each respondent is given an intensity score. The intensity scores are then cross tabulated with the content scores (Suchman, 1950, p. 219).

This procedure was the one adopted to measure intensity for both the attitude items relating to handicapped persons

and to education. Four response categories were used instead of the three suggested by Suchman.

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

Two types of variables related to personal contact were represented by 16 items in the questionnaires. Six items were related to educational contact, eight items were related to contacts with physically disabled persons, one item to contact with mentally retarded, and one item dealt with contact with emotionally disturbed persons. Each item generated a score. Single-item scores are unstable, and no reliability data can be offered. There is some evidence of the predictive validity of some of the items, in respect to expectancies that known groups should respond in certain ways. For example, it was expected that persons working in

special education would report a higher frequency of contact with disabled persons than would persons not working in the field of disability. This was indeed the case in Costa Rica (Felty, 1965) and might be considered an item validation.

Contact with Education.--These items (PQ)¹ requested respondents to indicate: (a) how much they had worked in schools or educational settings, (b) what per cent of income was derived from such work, (c) how they felt about such work, and (d) what other work opportunities they could have alternatively chosen.

Contact with Physically Disabled.--These items (PQ: HP) requested the respondents to indicate: (a) the kind of physical disability with which they had had the most contact, or knew the most about, (b) the type of relationship they had had with physically disabled persons--family, friends, working relationships, etc., (c) the approximate number of encounters they had had with physically disabled persons. Other questions attempted to explore alternative opportunities, enjoyment of contact with handicapped persons, ease of avoidance of such contact, gain from contact, and per cent of income from working with the handicapped.

¹Throughout the dissertation PQ will refer to Personal Questionnaire; PQ-HP will refer to Personal Questionnaire-Handicapped Persons.

Preferences for Personal Relationships

This set of three items (PQ 22-24) was devised to help identify respondents, or groups of 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 per cent 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). The special educators, then, being committed to "asset" values (by hypothesis), being more concerned with intrinsic valuation of the person rather than valuing him for his absolute achievements, should also express a greater need for

personal interactions generally, and a greater diffuseness of interpersonal relationships. The assumption, then, is that a comparison between special educators and regular teachers will indicate a significant difference in preference for interpersonal relationships. Mader (1967) assumed no differences among sub-groups of special educators with regard to preferences for personal relationships and it was not disconfirmed.

Institutional Satisfaction

This was a set of nine questions (PQ 33 1-8) adapted from Homan (1955, p. 400). 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 that people working in special education and rehabilitation would be less satisfied with institutions generally than other groups, but it was not confirmed. Also, persons with high education in relation to income might be expected to be less satisfied than others, this was not confirmed. Again, no reliability estimates are offered, and validity will be a function of concurrent correlation coefficients.

Change Orientation

This set of six questions (PQ 41-44 and 46-47) were adapted from Programa Interamericano de Informacion Popular

(PIIP) in Costa Rica. The respondents were asked to react to a number of statements which purported to reflect attitudes toward change in such areas as health practices, child rearing practices, birth control, automation, political leadership, and self change. Four response alternatives to indicate the degree of agreement were given: strongly agree, slightly agree, slightly disagree, and strongly disagree. Friesen (1966) postulated that people working in special education would have responses which suggested a greater flexibility and openness toward change than other interest groups. This favorableness toward change could, challenge many existing cultural norms, but the hypotheses was not confirmed. Mader (1967) hypothesized no differences among the sub-groups of special educators and it was not disconfirmed with regard to change orientation. It was postulated in the present study that differences do exist between special educators and regular teachers with regard to change orientation.

Demographic Variables

Respondents were asked in the PQ to indicate their placement on several variables often found to be of significance in sociological analysis: these were education (28-30), occupation (39), rental (32), age (9), sex (face sheet), marital status (13), number of children (14), number of siblings (17, 18), home ownership (31), mobility

(10, 11, 12), and rural-urban youth (10). In the dissertation analysis, not all of these variables will be used because of time and space limitations, but each is important to the comprehensive cross-cultural study referred to earlier.

Religiosity

Three questions (PQ 20, 21, and 38) were oriented toward religion: (a) religious preference, (b) the felt importance of religion to the respondent, and (c) conformity to the rules and regulations of the church. "Religiosity" also related to the traditional-modern dimension. It was postulated that a difference would exist among the special education personnel and the regular classroom teachers with reference to religiosity.

Collection of Data

There were fifteen counties selected for this study from northern, central and southern Michigan which were the same or representative of the geographic areas used by Mader (1967) in his study of special educators from Michigan. Although the counties were not listed in his study, he supplied a list for this present study (see Figure 1).

The techniques of obtaining a representative sample of regular teachers from Michigan public schools was that

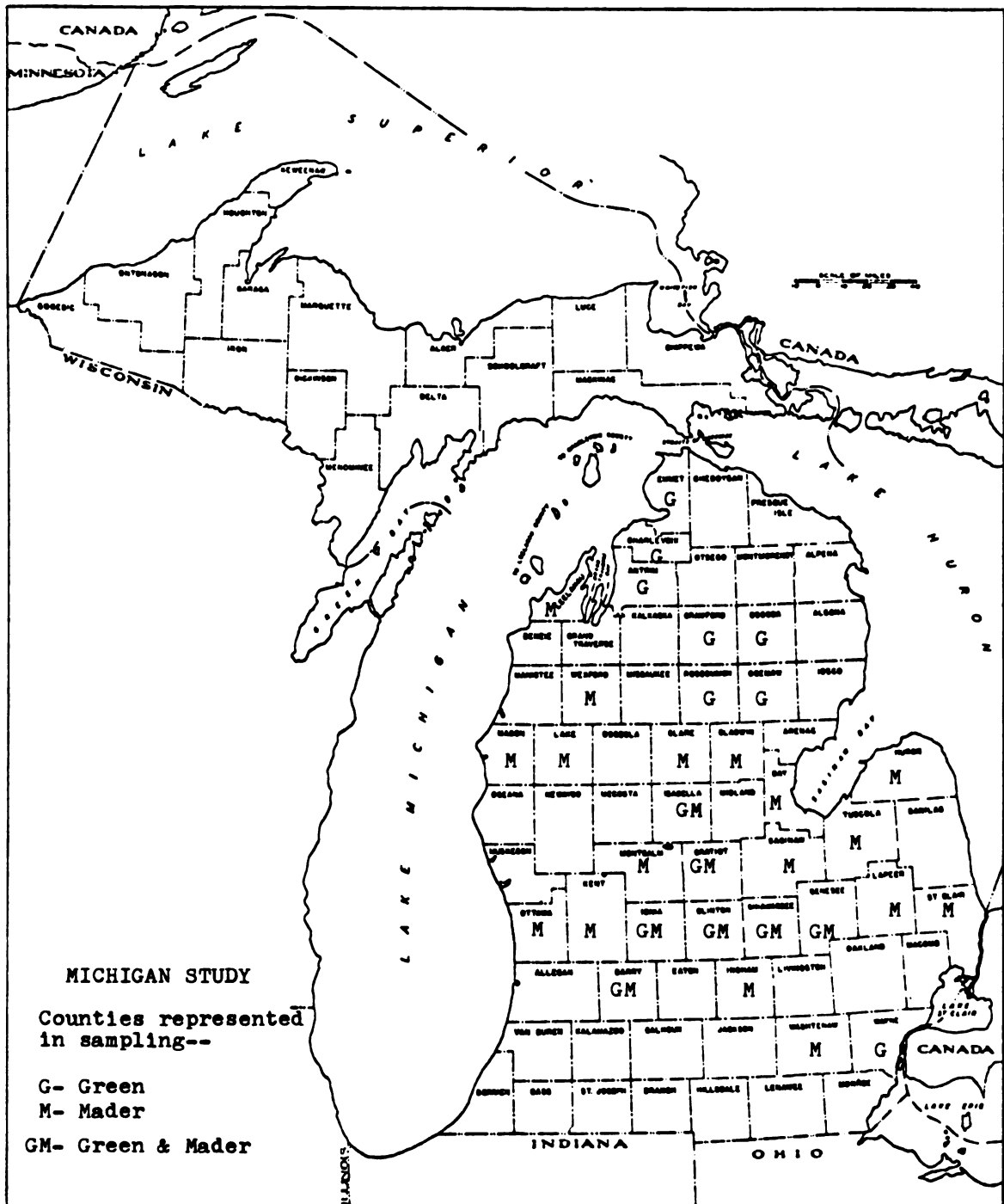


Figure 1.--The geographical representation of the Michigan Counties from which the sample of special educators and regular teachers were taken.

of stratified random sampling (Edwards, 1965; Hays, 1965, pp. 64-67). A description of the random sampling should be of assistance to future replication of this study.

In all 15 counties the Intermediate School District Superintendent of Schools was contacted and a printed list or school directory with names and addresses of all teachers for that district was obtained. It was necessary to work with the local school superintendents and principals as well as MEA negotiating committees to obtain permission to use teachers in the sample. There was, in most situations, excellent cooperation from both administrators and teachers. An attempt was made to schedule the presentation and distribution of questionnaires during the school districts' county-wide teacher's institute day, where all the teachers of a county or counties come together. This procedure was utilized in all but two counties (Wayne and Genesee Counties where a randomization of the selection of schools was necessary because no county institute meeting was set up).

A random sample of elementary and secondary classroom teachers was taken from the school directories by use of the random number tables contained in R. A. Fisher and F. Yates, Statistical Tables for Biological, Agricultural, and Medical Research, (pp. 385-387). These teachers were sent a personal invitation, co-signed by the local superintendent of schools, to participate in this study of attitudes

toward the physically handicapped. An effort was made to set a convenient time that would not interfere with other activities of the institute on that day.

The following procedures and instructions were carefully followed in each of the counties in Michigan: (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) an oral explanation of the various instruments, (e) a statement that there would be complete anonymity of those who participated, and (f) that a follow-up card would be sent to the entire random sample.

The instruments were administered in the following order:

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

In every case the teachers were given the six instruments in a large envelope, stamped for mailing, and addressed to the author. Approximately two weeks from the presentation and distribution of the questionnaires, a card was mailed to the selected teachers expressing appreciation for their cooperation and encouraging their participation if

they had not already returned their questionnaire. In some areas a second follow-up mailing was necessary.

By means of the methods described a 78 per cent return of the questionnaires was achieved with a total random sample of 310 out of 400. From the 200 elementary teachers sampled the return was 161, and from the secondary teachers 149. There were 10 questionnaires returned without being appropriately completed and could not be utilized as part of the sample and were not considered part of the 78 per cent return.

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, Chps. 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 procedure, 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, Chp. 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, Chp. 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 Analyses

The one- and two-way analysis of variance was used for testing hypotheses about the difference between group means. For convenience of computer programming, the F statistic was used for testing of all mean differences, even though differences between two means are usually tested by the t statistic. Comparisons of F and t statistics have shown that the results are the same (Edwards, 1965, p. 146). If an F between group means was significant, inspection of the size of the two means indicated which one was the highest and consequently the main contributor to the differences reflected in the F ratio.

While a significant overall F leads to non-rejection of the hypothesis being tested, we do not know whether every mean is significantly different from every other. Several methods have been proposed by statisticians for determining the nature of the differences between treatment

means. The \underline{F} test for the four group comparisons is the usual one while the \underline{F} test used to test for differences between the adjusted means of the "pairs-of-groups" is equal to a two-tailed \underline{t} test while also fully accounting for the other experimental factors. The adjusted mean equalizes or accounts for the variance in the size of the group samples as well as the unequal sex distribution within the samples. This procedure for testing for significance among multiple means is approximately equal to Duncan's Multiple Means test (Edwards, 1950; Kramer, 1956, pp. 307-310) up to and including three treatment means. The procedure is somewhat more liberal than Duncan's when more than three means are included, thus increasing the likelihood of Type I error. The procedure also does not account for the non-independence among the pairs-of treatment means.

The UNEQ1 routine (Ruble, Kiel, Rafter, 1966) was used to calculate the one-way analysis of variance statistics. The program was specially designed to handle unequal frequencies occurring in the various categories. The computer "print-out" also provided the frequencies, sums, means, standard deviations, sums of squares, and sums of squared deviations of the mean for each category, in addition to the analysis of variance tables. The \underline{F} statistic was also printed out and enabled the researcher to know at a glance whether or not the \underline{F} was significant.

The UNEQ1 routine also contains provision for designating one or more dependent variables as missing for an

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observation, but incorporating other dependent variables listed on the Analysis of Variance table as non-missing. The observation is then ignored for all dependent variables with missing values, but used in the analysis for all dependent variables with non-missing values. The number of missing values in each category is printed after the table giving statistics for the categories for each dependent variable.

A two-way analysis of variance design for unequal N's was used to analyze group-sex interaction (Ruble, Paulson, and Rafter, 1966). Since the samples were not equal in size or in sex ratio within groups an "adjusted mean" was computed on which to base all F tests. The adjusted mean is shown in the tables along with the obtained mean.

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). 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 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, and the matrix of simple correlations between all variables.

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.

In actual practice, only the descriptive statistics, the zero-order correlations, and simple correlations with z transformations (Edwards, 1965, pp. 82-83) have been used in the analyses. Tests of significance of the correlation coefficients from zero are the usual ones, with tables entered for the appropriate degrees of freedom.

Level of Significance

The hypotheses for this study are to coincide with Mader's (1967) study and will be written in the null form. The stated level of significance will be set at .05.

The following section will consist of an hypothesis statement, its derivation, and the instrumentation used to test the hypothesis.

Statistical Hypotheses

Hypotheses Related to Contact Frequency and Attitude Scores

H-1: Contact-Intensity Interactions

H-1a: No differences will exist between regular teachers and special educators on the amount of contact with disabled persons as it effects scores on the intensity statements of the attitude-toward-disabled-persons (ATDP) scale, regardless of whether attitude content is favorable or unfavorable.

Hypothesis Drivation.--From consideration 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 Chapter II).

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

H-1b: No differences will exist between regular teachers and special educators on frequency of contact with education as it effects scores on the intensity statements of the Kerlinger Attitudes Toward Education scale, regardless of whether attitude is progressive or traditional.

Hypothesis Derivation.--Same as H-1a above.

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

H-2: Contact-Frequency Interactions

H-2a: No differences will exist between regular teachers and special educators on the relationship between frequency of contact with disabled persons and (a) alternative rewarding opportunities, (b) enjoyment of contact-HP, and (c) ease of avoidance of the contact-HP.

Hypothesis Derivation.--From considerations of Homan's, Zetterberg, and various studies in special education (see Chapter II).

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 PQ-HP: frequency by question number 4, alternatives by number 9, enjoyment by number 8, and avoidance by number 5.

H-2b: No differences will exist between regular teachers and special educators on the relationship between frequency of contact with education and (a) alternative rewarding opportunities, (b) enjoyment of contact with education, and (c) ease of avoidance of the contact-HP.

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: PQ frequency by question number 3, alternatives by number 6, and enjoyment by number 5.

Hypotheses Related to Attitude-Value Interaction

H-3a: No differences will exist between regular teachers and special educators on scores indicating need for power and control over others as they effect scores indicating acceptance of disabled persons.

H-3b: No differences will exist between regular teachers and special educators on scores indicating need for power and control over others as they effect 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 Chapter II), 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. 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: No differences will exist between regular teachers and special educators on scores indicating recognition and achievement as they effect scores measuring acceptance of disabled persons.

H-4b: No differences will exist between regular teachers and special educators on scores indicating recognition and achievement as they effect 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: No differences will exist between regular teachers and special educators on scores indicating need to help others and to be generous as they effect scores indicating acceptance of disabled persons.

H-5b: No differences will exist between regular teachers and special educators on scores indicating need to help others and to be generous as they effect attitudes toward education.

H-5c: No differences will exist between regular teachers and special educators, holding sex constant, on (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
Regular Teachers and
of Special Educators

H-6a: No differences will exist between regular teachers and special educators on scores indicating attitudes toward disabled persons as they relate to the following change orientation variables: (a) health practices, (b) child-rearing practices, and (c) birth control practices.

H-6b: No differences will exist between regular teachers and special educators on scores indicating traditional and progressive attitudes toward education as they relate to the following change orientation variables: (a) health practices, (b) child-rearing practices, and (c) birth control practices.

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.

Hypotheses Related to
Characteristics of
Those Working Directly
with the Physically
Disabled

H-7: No differences will exist between regular teachers and special educators in mean attitude-toward-disabled-persons scores.

Hypothesis Derivation.--From considerations of Zetterberg (see Chapter II), 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: No differences will exist between regular teachers and special educators 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: No differences will exist between regular teachers and special educators among scores indicating either progressive or traditional attitudes toward education.

Hypothesis Derivation.--Same as H-3.

Instrumentation.--Same as H-2.

H-10: No differences will exist between regular teachers and special educators on the following change orientation variables: (a) health practices, (b) child-rearing practices, and (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 emphasizes individual and empirical solutions to current problems.

Instrumentation.--A series of questions in the Personal Questionnaire.

H-11: No differences will exist between regular teachers and special educators on 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 regular teachers and 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 for special educators, and that mean scores would differ significantly.

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.

H-12: No differences will exist between regular elementary and secondary teachers on: (a) attitudes toward disabled persons (ATDP) scores, (b) progressive attitudes toward education (PATE), (c) traditional attitudes toward education (TATE), (d) Benevolence, and (e) Leadership.

CHAPTER IV

ANALYSIS OF THE DATA

The analysis of data is organized into two main sections: Section 1: Descriptive data on designated characteristics of the sample; Section 2: Testing of hypotheses and comparison of mean differences of various scores when respondents are divided according to: (a) ~~special educators and regular classroom teachers~~, (b) sex, (c) contact with criterion, and (d) other indices. Correlational relationships (zero-order and the z' transformations) will also be studied for selected variables.

SECTION 1: Descriptive Data

Descriptive characteristics of the sample are derived from a combination of the FCC I and II and the CDC 3600 MDSTAT programs which provide a number of statistics useful for simple demographic descriptions.

Table 1 gives the distribution of the total sample according to occupational category and sex. Table 2 presents the stratified random sample of elementary and secondary classroom teachers from specified counties in Michigan. Close observation of these tables reveals small N's in samples from some counties and the sex-linked

character of the elementary teachers. These factors lead to difficulties in data analysis and interpretation.

TABLE 1.--Distribution of respondents according to occupation and sex.

Occupation	Male	Female	Total
Elementary Teachers	12	149	161
Secondary Teachers	78	71	149
Totals	90	220	310

Differences in Education,
Income, and Age Between
Respondent Groups

The data for three demographic variables of education, income and age are contained in Table 3. Sample size, means, standard deviation and the t statistic (Edwards, 1965, p. 95) were computed for both the total of special educators and regular classroom teachers. No significant differences were found between the groups in respect to the amount of education, income, and age.

The data for education and income were analyzed in coded form. Table 4 gives an interpretation of the education scores in terms of educational attainment. See Special Code Book Instructions for income code. The data is presented such that each score represents a range: i.e., grades completed or amount of income. The data is ordinal in that a higher mean score always represents higher educational attainment or greater amount of income earned.

TABLE 2.--Stratified random sample of elementary and secondary teachers--Michigan.

Counties	Elementary Questionnaires			Secondary Questionnaires			Total Questionnaires		
	Distri- buted	Re- turned	Per- cent	Distri- buted	Re- turned	Per- cent	Distri- buted	Re- turned	Per- cent
Emmet									
Charlevoix	19	14	78	19	12	63	38	26	68
Antrim									
Crawford									
Oscoda	20	20	100	20	7	35	40	27	68
Roscommon									
Ogemaw									
Isabella	36	22	61	24	22	91	60	39	65
Gratiot									
Barry	35	27	77	35	27	77	70	53	76
Ionia									
Clinton	23	16	70	23	14	61	46	29	63
Shiawassee	30	30	100	30	30	100	60	60	100
Genesee	25	22	88	25	15	60	50	37	74
Wayne	12	10	83	24	23	96	36	34	94
Totals	200	161	81	200	149	75	400	310	78

TABLE 3.--Sample size, means, standard deviations, and the t statistic in respect to three demographic variables for amount of education, income, and age comparing special educators and regular classroom teachers.

Group	N	Mean	S.D.	<u>t</u>	Sig. of <u>t</u>
<u>Amount of Education</u>					
Special Educators	345	7.29	.95	.16	N.S. ¹
Regular Teachers	310	7.39	1.57		

<u>Amount of Income</u>					
Special Educators	344	10.8	4.04	.46	N.S.
Regular Teachers	310	10.42	1.22		

<u>Age</u>					
Special Educators	345	40.61	12.89	2.11	N.S.
Regular Teachers	306	40.80	12.80		

¹N.S. = Not Significant at $P < .05$.

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

Score	Interpretation	Range of Interval in Terms 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 Table 3

No significant differences were found between special educators and regular classroom teachers as indicated in Table 3 which is divided into three demographic variables for education, income, and age. The sample size is adequate for such a comparison. It should be noted that the level of significance for the t test of difference of means was set at .05.

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

Hypotheses Related to
Contact Frequency, In-
tensity, and Attitude
Scores

H-1: Contact-Intensity Interactions.

H-1a: No differences will exist between regular teachers and special educators on the amount of contact with disabled persons as it effects scores on the intensity statements of the attitude-toward-disabled-persons (ATDP) scale, regardless of whether attitude content is favorable or unfavorable.

Table 5 represents a comparison of special educators and regular classroom teachers on the interaction of contact and intensity with regard to disabled persons. It can be noted from this table and the tables that follow that the actual significance level of the F statistic is printed out rather than merely indicating if it is significant at a stated level. It was decided to present the actual F value since the computer program provides this information. As is indicated the resulting significance of the F statistic is sufficient to reject the null hypothesis at the predetermined level of significance, i.e., $P < .05$.

TABLE 5.--Sample size, means, standard deviation, and \bar{F} statistic comparing special educators and regular classroom teachers on intensity scores on the attitude-toward-disabled-persons (ATDP) scale, controlling for frequency of contact.

Group	N	ATDP Intensity Mean	S.D.	HP-Contact			\bar{F}		Sig. of \bar{F}	
				Mean	S.D.	1 Way Group	1 Way Group	2 Way Contact	1 Way Group	2 Way Contact
Special Educators	316	63.01	7.40	4.26	1.13	12.54		7.65	.001	.006
Regular Teachers	247	60.76	7.53	3.35	1.34					

H-1b: No differences will exist between regular teachers and special educators on frequency of contact with education as it effects scores on the intensity statements of the Kerlinger Attitudes Toward Education scale, regardless of whether attitude is progressive or traditional.

Table 6 indicates significant differences between special educators and regular teachers on progressive attitudes toward education scores as effected by contact with education. When contact is held constant the F statistic is smaller, and a significant difference remains. The null hypothesis is rejected.

Table 7 reveals that the mean differences on the traditional intensity scores for both groups are not significantly different.

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

Table 8 presents the zero-order correlations between contact and intensity scores on the attitudes toward-disabled-persons scale, and the progressive and traditional attitude scales for each group. The correlations for males and females within the regular teachers group are also given.

No significant correlations are indicated in Table 8 for the special educators between amount of contact with

TABLE 6.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on intensity scores on the progressive-attitude-toward-education (PATE) scale, controlling for frequency of contact.

Group	N	PATE Intensity		Education Contact		<u>F</u>			Sig. of <u>F</u>		
		Mean	S.D.	Mean	S.D.	1 way Group	2 Way Contact	13.23	1 Way Group	2 Way Contact	
Special Educators	315	34.31	3.15	7.25	1.83	16.37	13.23	<.0005	<.0005		
Regular Teachers	250	33.18	3.45	7.39	1.57						

TABLE 7.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on intensity scores on the traditional-attitude-toward-education (TATE) scale, controlling for frequency of contact.

Group	N	TATE Intensity		Education Contact		<u>F</u>			Sig. of <u>F</u>		
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Contact	1.35	1 Way Group	2 Way Contact	
Special Educators	315	32.18	3.65	7.24	1.83	.25	1.35	.62	.24		
Regular Teachers	250	32.34	3.81	7.39	1.57						

TABLE 8.--Zero-order correlations between amount of contact with disabled persons and intensity scores on attitudes-toward-disabled-persons scale, and the progressive and traditional attitude scales for special educators and regular classroom teachers.

Group	Sex	ATDP		PATE		TATE	
		Intensity r	N	Intensity r	N	Intensity r	N
Special Educators	Total ¹	.09	318	.07	343	.04	343
Regular Teachers	Male	.18*	76	.10	77	.21*	77
	Female	.00	171	-.07	173	.09	173
	Total	.05	247	-.03	250	.13*	250

*P < .05.

¹Mader (1967) did not analyze the data separately by sex, thus only totals are given.

disabled persons and intensity scores on the ATDP scale, PATE, or TATE scales. Although no significant correlation was evident for regular teachers between contact with disabled persons and intensity scores on the ATDP and PATE scales, the correlations were in the direction of the research hypotheses. A significant relationship ($P < .05$) does exist between HP-contact and intensity scores on the TATE scale.

H-2a: No differences will exist between regular teachers and special educators on the relationship between frequency of contact with disabled persons and (a) alternative rewarding opportunities, (b) enjoyment of contact-HP, and (c) ease of avoidance of the contact-HP.

Difficulty was encountered in testing H-2a since statistical tests for ascertaining the difference between two multiple correlations are not available. The method used to test this hypothesis was to determine if a significant difference existed between two simple correlation coefficients obtained from the MDSTAT program. Edwards (1965, pp. 82-83) uses the z' transformation in testing the significance between two obtained r 's.

Table 9 shows there are no significant differences between regular teachers and special educators with regard to the relationship between amount of contact with disabled persons as effected by the variables of alternatives, and avoidance. The null hypothesis cannot be rejected for alternatives and avoidance, but it is rejected for the variable of enjoyment.

TABLE 9.--Sample size, simple correlations, the z values, and a statement of significance in comparing special educators and regular classroom teachers on the relationship between frequency of contact with disabled persons and alternatives, enjoyment, and avoidance of contacts.

Group	Ed- Alternative		HP- Enjoyment		HP- Avoidance	
	r	N	r	N	r	N
Special Educators	.06	317	.13	318	.14	310
Regular Teachers	.01	246	-.03	251	-.17	247
	$z = .58$		$z = 1.91^*$		$z = -.31$	

* $P < .05$.

H-2b: No differences will exist between regular teachers and special educators on the relationship between frequency of contact with education and (a) alternative rewarding opportunities, (b) enjoyment of contact with education, and (c) ease of avoidance of the contact-HP.

Table 10 reveals significant differences between regular teachers and special educators on the relationship between frequency of contact with education and other contact variables of alternatives, enjoyment, and avoidance. Therefore, the null H-2b is rejected.

TABLE 10.--Sample size, simple correlations, the z values and a statement of significance in comparing special educators and regular classroom teachers on the relationship between frequency of contact with education and alternatives, enjoyment, and avoidance of contacts.

Group	Ed- Alternatives		Ed- Enjoyment		HP- Avoidance	
	r	N	r	N	r	N
Special Educators	.19	345	.26	345	.08	310
Regular Teachers	-.12	303	.06	310	-.12	246
	z = 3.92*		z = 2.57*		z = 2.32*	

*P < .05.

Hypotheses Related to
Attitude and Value
Interactions

H-3a: No differences will exist between regular teachers and special educators on scores indicating need for power and control over others as they effect scores indicating acceptance of disabled persons.

This hypothesis was tested by the analysis of variance as was H-1 and the results are reported in Table 11. There was not sufficient difference between the groups to disconfirm the hypothesis at the .05 level of significance.

H-3b: No differences will exist between regular teachers and special educators on scores indicating need for power and control over others as they effect scores on the measures of progressive and traditional-attitudes-toward-education.

In both Tables 12 and 13 the results indicate a significant difference between regular teachers and special educators on the leadership value as related to both progressive and traditional attitudes toward education. The null hypothesis is rejected.

H-4a: No differences will exist between regular teachers and special educators on scores indicating recognition and achievement as they effect scores measuring acceptance of disabled persons.

TABLE 11.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on scores of the attitude-toward-disabled- persons scale as effected by leadership value scores.

Group	N	ATDP		Leadership		F		Sig. of F	
		Content							
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Leadership	1 Way Group	2 Way Leadership
Special Educators	334	44.08	5.82	12.10	9.30	.17	.19	.68	.67
Regular Teachers	286	43.90	4.92	11.05	6.87				

TABLE 12.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on scores of the progressive-attitudes-toward-education scale as effected by leadership value scores.

Group	N	PATE Content		Leadership		F		Sig. of F	
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Leadership	1 Way Group	2 Way Leadership
Special Educators	335	32.03	3.49	12.10	9.30	27.93	26.94	<.0005	<.0005
Regular Teachers	288	30.55	3.43	11.05	6.87				

TABLE 13.--Sample size, means, standard deviation and F statistic comparing special educators and regular classroom teachers on scores of the traditional-attitudes-toward education scale as effected by leadership value scores.

Group	N	TATE Content		Leadership		F		Sig. of F	
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Leadership	1 Way Group	2 Way Leadership
Special Educators	335	25.60	4.02	12.10	9.30	24.24	22.77	<.0005	<.0005
Regular Teachers	288	27.20	4.06	11.05	6.87				

The differences reported in Table 14 are not significant at the .05 level of significance. The null hypothesis cannot be rejected.

H-4b: No differences will exist between regular teachers and special educators on scores indicating recognition and achievement as they effect measures of traditional and progressive attitudes toward education.

The null hypothesis H-4b can be rejected as the results in Tables 15 and 16 show significant differences between regular teachers and special educators on both traditional and progressive scale scores with recognition value scores held constant.

H-5a: No differences will exist between regular teachers and special educators on scores indicating need to help others and to be generous as they effect scores indicating acceptance of disabled persons.

The above hypothesis was not disconfirmed as indicated by Table 17 with no significant differences found between special educators and regular classroom teachers.

H-5b: No differences will exist between regular teachers and special educators on scores indicating need to help others and to be generous as they effect attitudes toward education.

Tables 18 and 19 indicate that the differences are significant between scores for regular teachers and special educators on the traditional and progressive attitude toward education scales with the benevolence value scores held constant.

TABLE 14.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on scores of the attitude-toward-disabled-persons scale as effected by recognition value scores.

Group	N	ATDP Content		Recognition		F		Sig. of F	
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Recognition	1 Way Group	2 Way Recognition
Special Educators	336	44.07	5.81	10.55	7.95	.079	.09	.77	.75
Regular Teachers	292	43.95	4.93	9.80	4.90				

TABLE 15.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on scores of the traditional-attitudes-toward-education scale as effected by recognition value scores.

Group	N	TATE Content		Recognition		F		Sig. of F	
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Recognition	1 Way Group	2 Way Recognition
Special Educators	337	25.62	4.01	10.55	7.95	23.55	22.87	<.0005	<.0005
Regular Teachers	294	27.17	4.04	9.80	4.90				

TABLE 16.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on scores of the progressive-attitudes-toward-education scale as effected by recognition value scores.

Group	N	PATE Content		Recognition		\bar{F}		Sig. of \bar{F}	
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Recognition	1 Way Group	2 Way Recognition
Special Educators	337	32.02	3.48	10.55	7.95	26.31	26.45	<.0005	<.0005
Regular Teachers	294	30.60	3.43	9.80	4.90				

TABLE 17.--Sample size, means, standard deviation and F statistic comparing special educators and regular classroom teachers on scores of the attitude-toward-disabled-persons scale as effected by benevolence value scores.

Group	N	ATDP Content		Benevolence		\bar{F}		Sig. of \bar{F}	
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Benevolence	1 Way Group	2 Way Benevolence
Special Educators	335	44.08	5.81	19.84	8.13	.10	.13	.74	.72
Regular Teachers	292	43.95	4.94	19.54	5.74				

TABLE 18.--Sample size, means, standard deviation and F statistic comparing special educators and regular classroom teachers on scores of the traditional-attitude-toward-education scale as effected by benevolence value scores.

Group	N	TATE		Benevolence		<u>F</u>		Sig. of <u>F</u>	
		Content							
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Benevolence	1 Way Group	2 Way Benevolence
Special Educators	336	25.62	4.02	19.84	8.13	23.43	24.00	<.0005	<.0005
Regular Teachers	294	27.18	4.04	19.54	5.74				

TABLE 19.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on scores of the progressive-attitude-toward-education scale as effected by benevolence value scores.

Group	N	PATE		Benevolence		<u>F</u>		Sig. of <u>F</u>	
		Content							
		Mean	S.D.	Mean	S.D.	1 Way Group	2 Way Benevolence	1 Way Group	2 Way Benevolence
Special Educators	336	32.02	3.48	19.84	8.13	26.23	26.04	<.0005	<.0005
Regular Teachers	294	30.60	3.43	19.54	5.74				

H-5c: No differences will exist between regular teachers and special educators, holding sex constant, on (a) the need to help others, (b) attitudes toward the disabled, and (c) progressive attitudes toward education.

Analysis of Table 20, indicates that no significant difference exists between the groups when sex is held constant for Benevolence and attitudes toward disabled persons. However, a significant difference was found when sex was not held constant in the one-way analysis of variance on the need to help others. It is further evident that a significant difference exists between special educators and regular teachers, when sex is held constant, on progressive attitudes toward education and the null hypothesis can be rejected.

Hypotheses Related to
Change Orientation
and Attitude Scores

H-6a: No differences will exist between regular teachers and special educators on scores indicating attitudes toward disabled persons as they relate to the following change orientation variables: (a) health practices, (b) child rearing practices, and (c) birth control practices.

High scores on change orientation represents a departure from the status quo and high relationships to individual differences. A summarization is contained in Table 21 of the relationships as tested by the z'

TABLE 20.--Sample size, means, standard deviations, and F statistic comparing special educators and regular classroom teachers, (while holding sex constant) on Benevolence, attitudes toward the disabled, and progressive-attitude-toward-education scores.

Group	N	Mean	S.D.	<u>F</u>		Sig. of <u>F</u>	
				1 Way Group	2 Way Sex	1 Way Group	2 Way Sex
<u>Benevolence</u>							
Special Educators	335	19.92	8.09	4.15	.278	.016	.605
Regular Teachers	295	19.94	5.74				

<u>ATDP Content</u>							
Special Educators	340	44.06	5.82	.008	.011	.89	.88
Regular Teachers	306	44.02	4.93				

<u>PATE Content</u>							
Special Educators	341	31.99	3.52	27.79	27.18	<.0005	<.0005
Regular Teachers	309	30.56	3.39				

TABLE 21.--Sample size, simple correlations, the z values, and a statement of significance in comparing special educators and regular classroom teachers on attitudes toward disabled persons as related to health, child rearing, and birth control practices.

	ATDP Health		ATDP Child Rearing		ATDP Birth Control	
	r	N	r	N	r	N
Special Educators	-.02	343	-.08	343	.03	342
Regular Teachers	-.10	304	-.09	302	-.03	303
	z = -1.27		z = -.128		z = .769	

P < .05.

transformation and similar to the analysis of H-2 (Edwards, 1965, pp. 82-83). No significant differences were found between special educators and regular teachers on attitudes toward disability and change orientation variables and the null hypothesis could not be rejected. However, the findings were in the direction of the research hypotheses.

H-6b: No differences will exist between regular teachers and special educators on scores indicating traditional and progressive attitudes toward education as they relate to the following change orientation variables: (a) health practices, (b) child rearing practices, and (c) birth control practices.

Table 22 indicates that no significant differences exist between special educators and regular teachers on TATE scores and the relationship to change orientation variables. On the PATE scores a significant difference

TABLE 22.--Sample size, simple correlations, the z values, and a statement of significance in comparing special educators and regular classroom teachers on TATE and PATE as they relate to health, child rearing, and birth control practices.

Group	Health		Child Rearing		Birth Control	
	r	N	r	N	r	N
<hr/>						
<u>TATE</u>						
Special Educators	-.11*	344	-.09	344	-.03	343
Regular Teachers	-.06	307	-.16*	305	-.13*	305
	z = -.641		z = -.876		z = -.127	
<hr/>						
<u>PATE</u>						
Special Educators	.05	344	.15*	344	.003	343
Regular Teachers	.09	307	.30*	305	.12*	305
	z = .506		z = 2.03*		z = 1.57	

*P < .05.

was found between the groups on child rearing practices as a change orientation variable. Close inspection of Table 22 reveals that the difference is opposite the predicted direction with regular teachers reflecting a higher relationship between progressive attitudes toward education and child rearing practices than special educators. It can also be observed that other relationships between the PATE and change variables were opposite the predicted direction.

Zero-order Correlations Between Attitudes and Values

Table 23 summarizes the relationships between attitudes toward the handicapped and values for special educators and regular classroom teachers. Analysis of the data indicates that there are no significant relationships between the variables.

Additional information (Table 23) for the regular teacher group was included by giving the correlations by sex. However, no significant relationships were evident.

A summary of the zero-order correlations between attitudes toward education and values is contained in Table 24 for both special educators and regular teachers.

There was a negative correlation between progressive attitudes and conformity for special educators significant at a .01 level. Between the traditional scale and conformity value there was a significant ($P < .01$)

TABLE 23.---Zero-order correlations between attitudes-toward-disabled-persons scale (content) and the Gordon value scale for special educators and regular classroom teachers.

Group	Support Value		Conformity		Recognition		Independence		Benevolence		Leadership	
	r	N	r	N	r	N	r	N	r	N	r	N
Special Educators Total	-.00	336	.06	336	-.03	336	.06	336	-.06	336	-.05	336
Regular Teachers Male	-.16	88	.00	88	.03	88	.10	88	-.03	88	.04	88
Female	-.03	204	.05	204	.03	204	-.04	204	-.05	204	.03	204
Total	-.07	292	.03	292	.03	292	-.00	292	-.04	292	.03	292

P < .05.

TABLE 24.--Zero-order correlations between progressive (P) and traditional (T) education scales (content) and the Gordon value scale for special educators and regular classroom teachers.

Group	Support Value		Conformity		Recognition		Independence		Benevolence		Leadership	
	P	T	P	T	P	T	P	T	P	T	P	T
Special Educators												
Total	r	.05	-.06	-.20**	.25**	-.03	-.05	.09	-.15**	.06	.03	-.14**
	N	337	337	337	337	337	337	337	337	337	337	337
Regular Teachers												
Male	r	.21*	-.25**	-.27**	.25**	.03	-.01	.14	-.11	-.02	.13	-.07
	N	89	89	89	89	89	89	89	89	89	89	89
Female	r	.05	-.00	-.10	.23**	-.01	-.02	.07	-.20**	-.01	.16*	-.15*
	N	205	205	205	205	205	205	205	205	205	205	205
Total	r	.10	-.08	-.16**	.24**	.01	-.03	.10	-.17**	-.03	.17*	-.14*
	N	294	294	294	294	294	294	294	294	294	294	294

*P < .05.

**P < .01.

positive correlation. The same negative and positive correlations for the same variables were evident for regular teachers. Both groups had significant ($P < .01$) negative correlations between traditional attitudes toward education and the independence value score.

There was a positive correlation between traditional attitudes and benevolence for the regular teachers at a $P < .01$ level of significance. Special educators and regular teachers groups indicated a significant ($P < .01$) negative correlation between leadership and traditional attitudes.

The method used for determining a difference between the zero-order correlations for the two groups involves using the z' transformation (Edwards, 1965, p. 82). Testing for the difference between two correlation coefficients was tested at a .05 level of significance. The only significant difference between regular teachers and special educators was on the traditional attitudes toward education and benevolence. Regular teachers were more traditional and less benevolent than were special educators. The expressed significance lends support to the theoretical framework of the value-attitude relationship for special educators and regular teachers.

Hypothesis Related to Characteristics of Those Working Directly with the Physically Disabled

H-7: No differences will exist between regular teachers and special educators in mean attitude-toward-disabled-persons scores.

A one-way analysis of variance design for unequal N's was used to analyze the data and test for significance (Ruble, Paulson, and Rafter, 1966). As indicated in Table 25 no significant difference was found in mean scores on the ATDP scale and the hypothesis cannot be rejected.

TABLE 25.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on mean scores of the ATDP scale.¹

Group	N	ATDP		<u>F</u>	Sig. of <u>F</u>
		Mean	S.D.	1 Way	1 Way
Special Educators	340	44.06	5.82	.008	.89
Regular Teachers	306	44.02	4.93		

¹Low scores on the ATDP (content) scale indicate positive attitudes.

H-8: No differences will exist between regular teachers and special educators in scores on measures of Benevolence, Recognition, or Leadership.

Table 26 reveals that regular teachers and special educators do not differ significantly on measures of Benevolence, Recognition or Leadership. The null hypothesis cannot be disconfirmed for these variables.

TABLE 26.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on measures of Benevolence, Recognition, and Leadership.

Group	N	Mean	S.D.	<u>F</u>	Sig. of <u>F</u>
				1 Way Group	1 Way Group
<u>Benevolence</u>					
Special Educators	338	19.90	8.07	.41	.53
Regular Teachers	295	19.54	5.74		

<u>Recognition</u>					
Special Educators	339	10.55	7.95	2.14	.13
Regular Teachers	295	9.80	4.09		

<u>Leadership</u>					
Special Educators	337	12.17	9.28	1.81	.175
Regular Teachers	289	11.28	6.75		

P < .05.

H-9: No differences will exist between regular teachers and special educators among scores indicating either progressive or traditional attitudes toward education.

Significant differences between the groups on both progressive and traditional attitudes toward education are given in Table 27. The null hypothesis is rejected.

TABLE 27.--Sample size, means, standard deviations, and F statistic comparing special educators and regular classroom teachers on scores indicating progressive or traditional attitudes toward education.

Group	N	Mean	S.D.	<u>F</u>	Sig. of <u>F</u>
<u>PATE</u>					
Special Educators	341	31.99	3.52	27.79	<.0005
Regular Teachers	309	30.56	3.39		

<u>TATE</u>					
Special Educators	341	25.63	4.00	26.45	<.0005
Regular Teachers	309	27.24	4.01		

H-10: No differences will exist between regular teachers and special educators on the following change orientation variables: (a) health practices, (b) child rearing practices, and (c) birth control practices.

Table 28 summarizes the analyses of the data concerning change orientation. As indicated, significant differences do exist between special educators and regular teachers on health and child rearing practices. The null hypotheses are rejected for both variables. No difference between the groups was found on birth control practices.

TABLE 28.--Sample size, means, standard deviations, and F statistic comparing special educators and regular classroom teachers on change orientation variables of health, child rearing, and birth control practices.

Group	N	Mean	S.D.	<u>F</u>	Sig. of <u>F</u>
<u>Health</u>					
Special Educators	343	4.64	.92	3.72	.05
Regular Teachers	308	4.49	1.07		

<u>Child Rearing</u>					
Special Educators	343	3.94	1.19	24.95	<.0005
Regular Teachers	306	3.48	1.15		

<u>Birth Control</u>					
Special Educators	342	3.35	.81	.77	.384
Regular Teachers	306	3.30	.61		

H-11: No differences will exist between regular teachers and special educators on mean scores indicating amount of contact with retarded and emotionally disturbed persons.

Table 29 shows a significant difference in frequency of contact with both retarded and emotionally disturbed persons for regular teachers and special educators.

TABLE 29.--Sample size, means, standard deviation, and F statistic comparing special educators and regular classroom teachers on frequency of contact with the mentally retarded (MR) the emotionally disturbed persons (EDP).

Group	N	Mean	S.D.	<u>F</u>	Sig. of <u>F</u>
				1 Way Group	1 Way Group
<u>MR Contact</u>					
Special Educators	343	4.17	1.27	239.09	<.0005
Regular Teachers	300	2.53	1.42		

<u>EDP Contact</u>					
Special Educators	342	3.39	1.56	112.88	<.0005
Regular Teachers	302	2.18	1.30		

H-12: No differences will exist between regular elementary and secondary teachers on: (a) attitudes toward disabled persons (ATDP) scores, (b) progressive attitudes toward education (PATE), (c) traditional attitudes toward education (TATE), (d) Benevolence, and (e) Leadership.

The results contained in Table 30 reveal that no significant differences were found between regular elementary and secondary teachers on attitudes toward disabled persons or on traditional and progressive attitudes toward education. While the null hypothesis cannot be rejected for the attitude scales, it can be rejected for Benevolence and Leadership. Regular elementary and secondary teachers differed significantly on these values at the .05 level. This raises questions about the postulated relationship between value and attitudes.

An attempt has been made in Table 31 to summarize all of the statistical hypotheses discussed in this chapter by indicating their rejection or acceptance as well as direction in terms of the research hypotheses.

TABLE 30.--Sample size, means, standard deviations, and F statistic comparing regular elementary and secondary classroom teachers on ATDP, PATE, TATE, Benevolence, and Leadership.

Group	N	Mean	S.D.	<u>F</u>	Sig. of <u>F</u>
<u>ATDP</u>					
Elementary	159	44.07	5.62	.02	.852
Secondary	147	43.97	4.08		

<u>PATE</u>					
Elementary	160	27.49	3.95	.10	.75
Secondary	149	26.97	4.07		

<u>TATE</u>					
Elementary	160	30.44	3.41	.004	.90
Secondary	149	30.68	3.37		

<u>Benevolence</u>					
Elementary	149	20.89	4.81	6.77	.009
Secondary	146	18.16	6.27		

<u>Leadership</u>					
Elementary	146	9.22	5.43	15.80	<.0005
Secondary	143	13.38	7.30		

TABLE 31.--Summary of hypotheses 1 through 12 indicating acceptance or rejection of each statistical null hypothesis and directionality of the research hypothesis.

Variables	<u>H-1</u>		<u>H-2</u>		<u>H-3</u>		<u>H-4</u>		<u>H-5</u>		<u>H-5c</u>		
	Contact Frequency and Intensity	Contact Frequency with (a) Disabled (b) Education	Leadership	Recognition	Benevolence	Sex							
ATDP	TATE	Alt	Enl	Avo	ATDP	PATE	TATE	ATDP	PATE	TATE	B	ATDP	PATE
X	X	O	(a)	O	X	O	X	X	X	X	O	O	X
+	+	+	+	+	-	-	-	-	+	+	+	-	+
			(b)	X	X	X	X	X	X	X	X	X	X
				+	+	+	+	+	+	+	+	+	+

Change Orientation ¹	<u>H-6</u>		<u>H-7</u>		<u>H-8</u>		<u>H-9</u>		<u>H-10</u>		<u>H-11</u>		<u>H-12</u>	
	Mean ATDP Scores	Mean ATDP Scores	Mean ATDP Scores	Mean ATDP Scores	Mean ATDP Scores	Change Orientation	Birth	MR	EDP	ATDP	PATE	TATE	B	L
hcb	hcb	hcb	hcb	hcb	hcb	hcb	hcb	hcb	hcb	hcb	hcb	hcb	hcb	hcb
000	000	000	000	000	000	000	000	000	000	000	000	000	000	000
+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++	+++

¹Change orientation - h = health practices, c = child rearing practices, b = birth control practices.

O = Acceptance of null hypothesis
 X = Rejection of null hypothesis
 + = Positive direction of research hypothesis
 - = Negative direction of research hypothesis

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

The original objectives of the study will be summarized and an attempt will be made to integrate the results and implications with these objectives. This chapter will be divided into three major sections:

Part I: Summary of the Theoretical and Methodological Issues, Part II: Discussion of the Results and Implications of Hypotheses Testing, and Part III: Recommendations.

Part I: Summary of the Theoretical and Methodological Issues

Nature of the Problem

In the introductory chapter it was noted that technological change has, rather suddenly, presented a dramatic challenge to several of our nations institutions, especially education. It was suggested that many obstacles to responsible social change are attitudinal in nature and must be studied as they become diffused into the cultural situation. In the past decade there has been an obvious increase in the interest in research concerning attitudes

toward the rehabilitation of the disabled and toward education. The main focus of the present study was to compare attitudes of two educational groups, i.e., special educators and regular classroom teachers, as to interpersonal values, personal contact, attitudes, and on certain demographic variables. An assumption has been made that both value and contact serve as determinants of attitudes (Friesen, 1966).

Summary of Theory

The theoretical framework of the present research is generally consistent with the social-psychological orientation of Wright (1960) and Meyerson (1948, 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 has to do with attitudes and values as they relate to physical disability and to education. Underlying these assumptions is a belief in the active nature of the individual as an agent of change in his physical and social environment.

Kerlinger's theoretical model was used to study attitudes toward education. He postulates a basic dichotomy, (but not polarization) which consists of a restrictive-traditional or permissive-progressive dimension of educational attitudes. He holds that traditional and progressive attitudes represent two relatively

independent underlying factors or ideologies. He further suggests that the sharpness of this 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.

Katz (1960) and Rosenberg (1960) 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.

Theory has suggested that values are important determinants of attitudes. Value orientations can be viewed as the basis of attitudes taken toward various social objects. Dembo et al. (1956) and Wright (1960) have formulated a conceptual framework that is specifically related to attitudes toward physical disability. According to their conceptual framework values can be clustered as to whether they are derived from comparisons

or intrinsic assets. Although circumstances may require comparative evaluation, the asset theory holds that this need never be done without evaluating the disabled person for his own unique characteristics as a human being. One of the assumptions of this study was that special educators would view disabled persons from more of an asset value orientation than would the regular classroom teacher. A logical extension of this assumption was that the postulated asset value orientation of the special educators would generalize to favorable progressive-attitudes-toward-education as well as favorable attitudes toward change orientation as measured by the indices of the study.

It has been suggested (Felty, 1965) that the whole concept of rehabilitation and special education (taken apart from the economic argument that in the long run education and training are cheaper than public support) is a response to the asset values of a society.

Theory has suggested that frequency and kind of interpersonal contact are determinants of attitudes. Guttman and Foa (1951) have shown that attitude intensity is related to the amount of social 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 have been made to test interaction between contact

frequency, intensity, and the related contact indices of enjoyment and avoidance. Several studies were reviewed which suggested the importance of personal contact in changing attitudes. Homans (1950) postulated that the more frequent the contact between persons or groups, the more favorable the attitudes.

Summary of Hypotheses Construction

The pilot study conducted by Felty (1965) applied several of the hypotheses of the present study to physically disabled in San Jose, Costa Rica. These hypotheses were extended by Friesen (1966) to include attitudes toward education. Mader (1967) altered the hypotheses direction for purposes of making comparisons between subsets of special educators. The hypotheses in the present study were further modified to allow for comparisons of special educators and regular classroom teachers, but with retention of the basic format used by Mader (1967).

H-1 and H-2 are related to contact-frequency and contact-intensity interactions. The hypotheses were derived from considerations by Foa (1950), Guttman and Foa (1951), and Rosenberg (1960), to the effect that contact frequency is directly related to attitude intensity regardless of content direction. Contact-frequency interactions took into account the relationship of four contact variables: (a) alternative rewarding opportunities, (b)

enjoyment of the contact, (c) ease of avoidance of contact, and (d) frequency per se.

H-3 through H-5 attempt to test the assumptions concerning asset or comparative value orientation. H-6 postulates a relationship between change orientation and positive attitudes toward the disabled and high scores on the progressive education scale. It was felt that high scores on change orientation would represent departure from the status quo and high relationship to new ideas and concern for the quality of care and equality of treatment for the disabled.

H-7 through H-11 were derived from the assumptions that persons working in the area of special education and rehabilitation would have more favorable attitudes toward disabled persons; would be more asset minded; would have more progressive attitudes toward education; would be more change oriented; and would have more contact with mentally or emotionally handicapped persons.

H-12 was an attempt to compare elementary and secondary regular classroom teachers on the five major criterion measures of this study.

Summary of Instrumentation

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, 1967; Kerlinger and Kaya, 1959) was used to measure both progressive and traditional attitudes toward education. Relationships between progressive-attitudes-toward education and positive attitudes toward physical disability was also investigated.

The Attitudes Toward Disabled Persons Scale was adapted from the attitude scale developed by Yuker et al. (1960). The scale was modified so as to make provisions for respondent scoring. The Likert-type format was retained, but the response categories were reduced from seven to four.

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 Gordon Survey of Interpersonal Values (Gordon, 1960). Asset value orientation toward others was measured by the sub-scale of Benevolence which Gordon (1963, p. 3) described as "Doing things for other people, sharing with others, helping the unfortunate, being generous." Comparative value orientation toward others were measured by Recognition value described by Gordon (1963, p. 3) as "Doing what is socially correct,

following regulations closely, doing what is accepted and proper, being a conformist," and by the Leadership value which Gordon (1963, p. 3) defined as "Being in charge of other people, having authority over others, being in a position of leadership or power."

Contact with education, preferences for personal relationships, change orientation, institutional satisfaction and other demographic characteristics were taken from the Personal Questionnaire. The Personal Questionnaire-HP measured contact with physically handicapped person on five contact variables: amount, kind, alternative to, enjoyment of, and ease of avoidance from contacts with disabled persons.

Summary of Statistical Procedures

Two frequency programs, FCC I and FCC II (Clark, 1964) were used in tabulating frequency distributions for every variable.

The one- and two-way analysis of variance computer programs were used for testing hypotheses concerned with differences between group means. The effect of sex on attitude scores was held constant by two-way analysis of variance procedures (Ruble, Paulson, and Rafter, 1966). Since the samples were not equal in size or in sex ratio, when a significant F occurred, an "adjusted mean" and mean's test was indicated. The procedure used for testing

for significance among multiple means is approximately equal to Duncan's Multiple Means test (Edwards, 1965; Kramer, 1956, pp. 307-310) up to and including three treatment means.

Relational and predictive statistics were obtained by zero-order correlation analyses. The zero-order correlational analysis provided a matrix of simple correlations between all variables for the total samples used in this study. Tests of significance of the correlation coefficients from zero were used, with tables entered (Edwards, 1965, p. 362) for the appropriate degrees of freedom.

Summary of the Sample

A detailed account of the sampling procedures is contained in Chapter III. Selection of the sample was based on geographic considerations of the sample from Mader's (1967) study. A stratified random sample of Michigan Public School elementary and secondary teachers was taken from fifteen counties. A stratified random sample of 400 teachers was selected by use of the random number tables in Fisher (1948). The total return of questionnaires was 310 (78%) with 161 elementary and 149 secondary teachers responding.

Part II: Discussion of the Results and Implications of Hypothesis Testing

In Chapter I the purpose of this study was stated as being an investigation and comparison of the attitudes of

special educators and regular classroom teachers toward physical disability and toward education. The technical, methodological and theoretical concepts used were developed by Felty (1965) in his pilot study. Mader (1967) used the design as have others in the major cross-cultural study (see Chapter I) allowing for comparisons of various groups. The present study used the design to compare Mader's (1967) study of special educators with regular teachers.

There was a total of 19 hypotheses which were divided into four major categories pertaining to: (a) contact frequency, intensity and attitude scores, (b) attitude-value interactions, (c) change orientation and attitude, and (d) differences between special educators and regular teachers on certain variables. Each major category had several hypotheses and sub-hypotheses in order to test postulated relationships between variables and, inferences and predictions about respondent groups.

Hypotheses Relating to Contact Frequency and Intensity

It was hypothesized in this section that higher contact frequency with disabled persons and/or with education would lead to greater intensity of attitude irrespective of whether attitude content was positive or negative, progressive or traditional.

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 in Table 5 indicates that a significant difference does exist between special educators and regular teachers with regard to frequency of contact with the disabled and on intensity of attitude. The null hypothesis was rejected. Mader (1967) found no significant differences in special educator sub-groups on relationships between amount of contact and intensity. Similar non-significant relationships were reported by Felty (1965) and Friesen (1966) between various respondent groups.

Interpretation of these results may be accounted for in terms of sampling procedures. Both Felty (1965) and Friesen (1966) made comparisons within a different cultural setting with many occupations represented in the samples and much smaller N's and less control of demographic variables of education, income, and age. Mader (1967) compared sub-sets of special educators with similar levels of education, income, and frequency of contact with the disabled. In this study, as indicated by Table 2, there were no significant differences between special educators and regular teachers on variables of education, income, and age. Furthermore, it should be noted that a much larger N existed for both groups and a significant

difference did exist in the relationship between frequency of contact and intensity supporting the research hypothesis.

✓Special educators and regular teachers differed significantly with regard to the relationship between frequency of contact and intensity scores on the progressive attitudes toward education scale. The significant relationship (Table 6) indicating that special educators have more progressive attitudes gives support to the theoretical position taken in Chapter II and suggested by Jordan (1963).

No significant difference exists between special educators and regular teachers as effected by frequency of contact on the intensity of traditional attitudes toward education (Table 7). The higher TATE mean on intensity for regular teachers is in the direction hypothesized. The zero-order correlations between scores indicating amount of contact with the disabled and intensity scores on measures of traditional-attitudes-toward-education are presented in Table 8. The interesting finding from the analysis of the data is that the only significant zero-order correlation is between frequency of contact and intensity for the TATE scale for regular teachers. This further suggests that regular teachers have more traditional attitudes than do special educators. Other correlations though lacking significance at the .05 level are in the direction of the hypothesis.

Homan (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. The present study interprets "alternatives" as volitional contact with the attitude object.

A comparison of special educators and regular teachers on the frequency of contact with the disabled and the variables of alternatives, enjoyment, and avoidance was reported in Table 9. Use of the z' transformation as described by Edwards (1965) enables one to test for a significant difference between two simple correlations. The only one of the three variables for which a significant difference was found was that of "enjoyment." It should also be noted that special educators attained a positive correlation between contact and enjoyment while regular teachers had a negative correlation. There was a significant difference between these two correlations at the .05 level allowing rejection of the null hypothesis for the enjoyment variable. This result is in agreement with Mader's (1967) findings, but it appears there is no significant differences between the groups on alternatives or avoidance. The lack of difference may be that the content of the items tend to elicit socially desirable responses.

With regard to frequency of contact with education, Table 10 indicates significant differences for educational "alternatives," educational "enjoyment," and "avoidance" of contact with handicapped persons. Special educators differ significantly at the .05 level from regular teachers on the relationship between amount of contact with education and the three variables in a positive direction, i.e., there is a higher correlation between educational contact and (a) alternatives, (b) enjoyment, and (c) avoidance. The highest level of correlation in both Tables 9 and 10 was between contact and enjoyment by the special educators. According to Mader (1967) enjoyment was also the most significant of the combined variables in shaping positive attitudes toward the handicapped.

Hypotheses Related to Attitude and Value Interactions

Personal values have been found to relate to attitudes toward a social object. Wright (1960) postulates that people view the handicapped from either an asset or a comparative orientation. Rosenberg (1960) pointed 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. Values are also believed to be determinants of attitudes. An attempt has been made to determine the relationship between values and attitudes by means of several hypotheses.

The research hypothesis stated that those who score high in need for power and control over others (i.e., comparative) would tend to have unfavorable attitudes toward the disabled. This hypothesis was not confirmed by Mader (1967) nor was the null hypothesis of the present study disconfirmed. The lack of significance with regard to this particular use of Gordon's "leadership" value scale to operationalize the "comparative" approach may be the consequence of items that do not discriminate.

A significant difference was reported in Tables 12 and 13 between special educators and regular teachers on the items of "leadership" and measures of progressive and traditional education. Friesen (1966) reports similar results and Mader (1967) noted that special educators who are in classroom situations scored higher on the traditional education scale while the "itinerant" special education personnel scored high on the progressive education scale. The present findings indicate that the total special educators group scored higher on the progressive education scale than did the regular classroom teachers. On the traditional education scale there was a significant difference with regular teachers scoring higher than the special educators. These findings support the general theoretical framework upon which the hypotheses were based.

When special educators and regular teachers were compared on need for recognition and acceptance of the

physically disabled there were no significant differences. The Recognition value includes achievement orientation, the tendency to attract favorable attention, and to receive admiration from others. Recognition was considered as related to comparative orientation as opposed to asset orientation measured by the Benevolence value.

On both progressive and traditional attitude scales as related to measures of need for recognition there were significant differences as indicated in Tables 15 and 16. It is interesting to note that on the progressive attitude scales the mean scores for special educators were higher and on the traditional attitudes toward education scales regular teachers mean scores were higher. Mader (1967) found no significant differences among the subsets of special educators on the hypotheses dealing with recognition and the ATDP, TATE, or PATE scales. It would appear that the range of values for special educators as a group are more homogenous and thus when compared to regular teachers a significant difference was obtained.

The Benevolence value refers to the need to help others, and to be generous. There were several hypotheses that attempted to determine the relationship between special educators and regular teachers on the need to help others and to be generous. These hypotheses were stated in terms of an asset-value orientation rather than a comparative-value orientation.

Table 17 indicates that the two groups do not differ on attitudes toward disabled persons and Benevolence. However, inspection of the correlation matrix does indicate that special educators mean scores were higher and would be in the direction of the theoretical framework discussed in Chapter II.

Significant differences were found between the groups on the Benevolence value and both traditional and progressive attitudes toward education as reported in Tables 18 and 19. A similar pattern of findings was indicated by Kreider (1967) while Mader (1967) found no significant differences between the sub-groups of special educators. According to Kreider (1967, p. 213) it could be that in certain cultures, values have a long history of being viewed in traditional ways. Examination of the data again indicates that special educators have higher scores on progressive attitudes and Benevolence while regular teachers are high on traditional attitude scores, but lower on Benevolence scores.

Mader (1967) found that no significant sex differences existed on the ATDP scale and the PATE scale. He did find significance on PATE when the sub-sets of special educators were compared. Mader concluded that 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.

Inspection of Table 20 indicates that no significant differences were found between special educators and regular teachers on Benevolence and ATDP scores when sex was held constant, but there were significant differences on the PATE scores. It is further revealed that a significant difference does exist between groups on Benevolence when sex was not held constant. The conclusion can be drawn that the sex variable operates differently for special educators and regular teachers with regard to Benevolence.

Change Variables as Related to Attitude Scores

Felty (1965) suggested that attitudes toward change might have a salient relationship to attitudes toward the disabled and toward education and recommended change orientation variables be included in the study. The hypotheses postulated a relationship between change orientation and positive attitudes toward the disabled and high scores on the progressive education scale. It was felt that high scores on change orientation would represent departure from the status quo and high relationship to new ideas and concern for the quality of care and equality of treatment for the disabled. The assumption was that special educators would score higher on change orientation and dissatisfaction with the status quo than regular teachers.

Tables 21 and 22 indicate that no significant differences exist between special educators and regular teachers on ATDP and TATE scores as related to the change orientation variables of health, child rearing, and birth control practices. It can be observed that a positive direction existed in terms of the hypotheses for some variables. However, the only significant difference was on child rearing practices and this finding was opposite to that postulated.

There has been little support for the hypothesized relationship between change orientation and attitudes toward the physically disabled or toward education. Kreider (1967) suggested that the inconsistency and lack of significant results in his study might be the difficulty in achieving concept equivalence or of conflicting loyalties between traditional and progressive attitudes. Mader (1967) found no significant differences on the change variables as related to attitude scales. The combined findings, including the present research, suggest that if the hypothesized relationship exists, then some different techniques should be devised to ascertain that relationship.

Hypotheses Related to Charac-
teristics of Those Working
Directly with the Physically
Disabled

It was hypothesized that special educators working directly with disabled persons would have a lower mean attitude-toward-disabled-persons score than would regular classroom teachers. A lower score on the ATDP scale is an indication of more favorable attitudes. Zetterberg (1963) 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 in which to engage. Mader (1967) found no differences between sub-sets of special educators on mean scores on the ATDP scale and indicated the results were not surprising as the entire sample were those who voluntarily relate to the handicapped and because of their qualifications could have alternatives to such interaction with the handicapped.

No significant results are reported in Table 25 where special educators and regular teachers were compared on mean scores of the ATDP scale. It can also be observed that the group means are opposite the hypothesized direction.

Friesen (1966) and Kreider (1967) have discussed the adequacy of the ATDP scale used in this study. They have suggested that the instrument under question may be

measuring a limited area of the attitude universe related to the disabled. Most items may be reflecting only stereotyped statements about disabled persons, so that a respondent with a direct and prolonged personal contact might appear less accepting or no different on a "stereotype" level than those whose relationships are less frequent and perhaps more superficial. Further discussion in this regard will be made in the following section.

It was hypothesized that the special educators group would have a higher mean score than regular teachers in respect to the Benevolence value and lower mean scores in respect to the Recognition and Leadership values.

Mader (1967) pointed out 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. Although Mader (1967) found no differences between sub-sets of special educators he indicated that upon comparing their total mean scores with those reported by Gordon (1963) only one of Gordon's 29 adult groups ranked higher (i.e., more benevolent) than special educators.

The results of testing the hypotheses are indicated in Table 26 where no significant differences were found between special educators and regular teachers on Benevolence, Recognition, or Leadership. The implications are

clear that the hypothesized relationship of special educators being more benevolent and less concerned with recognition and leadership are not supported. The results suggest there are no differences between special educators and regular teachers in desire to be looked up to, admired (Recognition), or being in charge of other people and being in a position of power (Leadership).

It was postulated that special educators would have more progressive attitudes toward education than regular teachers. Table 27 compares special educators with regular teachers on progressive and traditional attitudes toward education. The results indicate significant differences: with special educators reflecting higher scores on progressive attitudes toward education and regular teachers being higher on traditional attitudes toward education. These findings further support Kerlinger's (1967) position of a distinct dicotomization of progressive and traditional education within our culture.

Mader (1967) found that special educators who were limited to the classroom were more traditional in their attitudes than were the itinerant special educators. His observation was that in daily instruction the teacher of the educable mentally handicapped is disposed to use a traditional educational approach to learning. Since the task of itinerant special educators is a direct service to children, plus consultation to regular and special

educators, their perception, according to Mader, of the adequacy of existing programs may be considered negative. The negativism of itinerant personnel may be expressed as anti-traditional or pro-progressive as it relates to existing education programs.

The interesting finding is that in Mader's (1967) study approximately 40 per cent of his sample were teachers of the educable mentally handicapped, and yet, the results of the comparison (Table 27) reveals that special educators have more progressive and less traditional attitudes toward education than do regular teachers.

It was hypothesized that special educators would have higher mean scores on the following change orientation variables: (a) health practices, (b) child rearing practices, and (c) birth control practices.

There was a significant difference found between special educators and regular teachers, as reported in Table 28, and it was in the hypothesized direction for both health and child rearing practices. No significant difference was evident between the groups for birth control practices.

There are some significant differences between the groups on mean scores for change variables, but there appears to be a limited relationship to attitudes as was noted in testing H-6 (Tables 21 and 22).

In a comparison of regular teachers and special educators it seemed reasonable to assume that a great number of contacts with the physically handicapped would yield similar numbers of contacts with the retarded and emotionally disturbed. It was hypothesized that mean scores would differ significantly for special educators and regular teachers on frequency of contact with the mentally retarded and emotionally disturbed. Results of testing this hypothesis are contained in Table 29 indicating significant differences do exist that clearly support the hypothesis.

A final hypothesis was that no differences would exist between regular elementary and secondary teachers on five of the major criterion variables: (a) ATDP, (b) PATE, (c) TATE, (d) Benevolence, and (e) Leadership.

An analysis of the results in Table 30 indicates that no significant differences exist between regular elementary and secondary classroom teachers on attitudes toward disabled persons or on progressive and traditional attitudes toward education. While the null hypothesis cannot be rejected for the attitude scales, it can be rejected for significant differences on Benevolence and Leadership.

Elementary teachers reflect higher scores on Benevolence which is not surprising in terms of cultural expectations for this group. It is further noted and of interest that secondary teachers were significantly higher on the comparative value of Leadership.

Summary of Hypothesis Testing

Table 31 gives a summary of the acceptance or rejection of each statistical null hypothesis and the directionality of the research hypotheses. There was a significant relationship between contact frequency and intensity on the ATDP scale and the PATE scale. This data lends support to the theory that contact frequency with disabled persons is related to attitude intensity regardless of content direction. Frequency of contact with education reflected a relationship with intensity of progressive attitudes, but not with traditional attitudes toward education.

The theoretical position of Homans (1954) and Zetterberg (1963) stressing the volitional nature and avoidance of contact as related to attitudes toward the disabled were not supported in this study. Enjoyment of contact was significantly related to frequency of contact with the disabled and special educators reflected the higher correlation.

Contact frequency with education and the relationship with alternatives, enjoyment and avoidance were all significantly different between the groups of special educators and regular teachers. There was theoretical support for the effects of the volitional nature, enjoyment, and avoidance of contact on attitudes toward education.

While the hypothesis relating Leadership and attitudes toward disabled persons for special educators and regular teachers could not be rejected, it should be noted that the mean score for Leadership was in the opposite direction of the research hypothesis. There were significant differences between the groups in the relationship of Leadership to both progressive and traditional attitudes toward education. Contrary to the asset-comparative orientation special educators reflected higher Leadership values which have been judged to represent a comparative attitude.

Recognition value and attitudes toward physically disabled persons were not found to be significantly different for special educators and regular teachers. A significant relationship was found as well as disconfirmation of the statistical null hypothesis between groups for progressive and traditional attitudes toward education when related to Recognition. Recognition mean scores were higher for special educators and opposite the hypothesized theoretical direction.

No significant difference was evident between groups on the ATDP scale as related to Benevolence. However, a similar pattern emerged as on Leadership and Recognition where progressive and traditional attitudes toward education were measured. There were significant differences between special educators and regular teachers where the

interaction of Benevolence on PATE and TATE scores was compared. The postulated higher level of Benevolence for special educators has only limited support by the positive direction of the mean scores.

There was a lack of significant findings on the change orientation variables as they relate to attitudes toward physical disability and toward education. Inconsistency in directionality of the hypothesized relationship makes it difficult to interpret and raises questions as to the instrumentation and methodology used to determine the relationship.

Table 31 also indicates that no significant differences existed between special educators and regular teachers on mean scores of ATDP scale, Benevolence, Leadership, and Recognition. There were significant mean differences between the groups on progressive and traditional attitudes toward education with special educators reflecting more progressive attitudes. Mean differences were tested for the change orientation variables and significant differences were evident for health and child rearing practices, but not for birth control practices. The null hypothesis was disconfirmed concerning differences in frequency of contact with the mentally retarded and emotionally disturbed persons.

The comparison of the regular elementary and secondary teachers in the final hypothesis revealed no

significant differences exist on attitudes toward disabled persons or toward education. An interesting and significant difference on the asset-comparative value orientation indicates that elementary teachers are more asset oriented (Benevolent) and secondary teachers more comparative in their orientation (Leadership).

Part III: Recommendations

Recommendations Relating to the Instruments

The instruments used in making a comparison between special educators and regular teachers on attitudes toward physical disability and toward education of necessity were the same as those used by Mader (1967) in his attitude study of special educators. Recommendations made by Mader (1967) have pertinence to the present study but could not be incorporated and still maintain the necessary equivalence for a comparison of the data.

It was suggested by Mader (1967) that the ATDP scale would be more differentiating if it were modified by using the expanded response form offered by the semantic differential. A further recommendation with regard to the Survey of Interpersonal Values (Gordon, 1960) was that Recognition and Leadership were not equal measures of a segment of the value domain and that Leadership value alone could serve as a measure of the comparative value orientation.

Kreider (1967) indicated that one of the probable reasons for not obtaining Guttman-type scales is related to the complexity of attitude composition. It can be assumed that attitudes are multidimensional and scale and intensity analysis must be designed to take this into account. Computer programs of the Guttman-type that take into consideration both uni- and multi-dimensional analysis are not yet available at Michigan State University. It is possible that the attitude instruments used in this study may be measuring less than the actual attitude universe related to the physically handicapped or to education.

It has been recommended by Friesen (1966) and Kreider (1967) that the model for the selection and scaling of attitude within the framework of a component approach as developed by Guttman (1959, 1961) would be useful for further study. This model, known as "facet theory" is discussed in greater detail and its implications for the study of attitudes by Friesen (1966). It is believed that such procedures would solve some problems relating to determination of attitude content, sampling of items, and length of scales.

Recommendations Regarding Sampling Procedures

Mader (1967) considered the sample of special educators to be adequate and representative of the groups of

special educators currently employed in the state of Michigan. The sample of regular classroom teachers selected for this study were taken from similar geographic areas of Michigan and were selected by means of random number tables (see Chapter III) giving a stratified random sample.

The matter of obtaining randomness of sampling is of extreme importance and one of the more difficult tasks of the present study. It is recommended that personal contact, timing of the meeting with those selected, adequate explanation of the purpose of the study and follow-up are essentials in obtaining a sufficient return of questionnaires for survey research.

Recommendations Regarding Statistical Analysis

Mader (1967) used and recommended the two-way analysis of variance design that would allow for analysis of interaction of certain variables. The recommendation was followed in the present study.

It is recommended that the Guttman-Lingoes's MSA-I computer program be used in subsequent studies. This procedure has been previously discussed, and it was indicated that MSA-I allows for multi-dimensional and multi-uni-dimensional data analyses.

It is suggested by Felty (1965) that factor analysis also appears to be of great value in determining predictor

variables for subsequent multiple regression analyses. This would possibly lead to a reduction of predictor variables to a more realistic size. This method could reduce the matrix of inter-correlations among variables to a minimum number of psychological dimensions (traits, factors) which will account for the diversity of responses and a reasonable amount of the total variance.

Recommendations Relating to the Findings of the Study

One of the major realizations that became evident as the findings of the present study unfolded was that continuous, multiple experimentation is more typical of science than once-and-for-all definitive experiments. It is recommended that the present research needs replication and cross-validation under still further conditions before the results can become an established part of science or theoretically interpreted with confidence.

It is recommended that further exploration be made with regard to the relationship between value orientation and attitudes toward disabled persons as no significant differences were found between special educators and regular teachers. The present research gives limited support to the asset-comparative value orientation. It also casts considerable doubt on the conclusion that special educators are more benevolent than regular teachers.

One of the more provocative findings in the present study has to do with H-8 and H-12. Table 31 readily reveals that no significant differences were evident between special educators and regular teachers on Benevolence and Leadership. However, when regular teachers were stratified into elementary and secondary groups for comparisons, there were significant differences on both value scales.

It is suggested that further differentiation of special educators and regular classroom teachers could be made. The results of the present study indicate that both groups are diverse in nature and interests. These diversities may have been influential in the failure to reject several statistical hypotheses. Further "comparisons" within and between the two groups of the study on designated variables as well as further investigation of the "relationships" between variables (i.e., contact frequency and intensity) is necessary if the attitude-contact-knowledge-value matrix is to be fully understood.

While the following observations do not necessarily follow from the empirical data they are the impressions of the researcher.

✓ There was no significant difference between special educators and regular classroom teachers in regard to attitudes toward disabled persons, yet differences did exist in attitudes toward education; thus it is suggested that

attitudes may be similar as a result of the personalized attitude object.

The question has been raised as to the adequacy of the ATDP scale, if, however, the acceptance of no difference is true, then the results have positive implications and support for more frequent integration of physically handicapped children into regular classes at the earliest elementary levels.

The lack of significant differences between the groups on attitudes toward the physically disabled could have important implications in teacher training programs. An interesting study of the attitudes of student teachers (i.e., those expressing an interest in special education and those who prefer regular teaching) may contribute to a better understanding of the findings of the present study.

A final observation would be that a study of the attitudes of the physically handicapped persons toward special educators and regular teachers would assist in the interpretation of the similarity of educators attitudes toward disability.

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APPENDICES

APPENDIX A-1

DEFINITION OF PHYSICAL HANDICAP

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-2

EDUCATION SCALE

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

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 |

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 |

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 |

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 |

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 |
| 3. 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. 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 |

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 |

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-3

SURVEY OF INTERPERSONAL VALUES

SURVEY OF INTERPERSONAL VALUES

Leonard V. Gordon

No. _____ Locality _____
Male _____ Female _____ Group _____
(Please indicate)

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. Put an "X" in 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. Put an "X" in 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: MORE LESS

- a. _____ X To have a good hot meal at noon.
b. _____ _____ To get a good nights sleep.
c. X _____ To get plenty of fresh air.

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 put an "X" in 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 put an "X" in 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.

MOST LEAST

1. _____ _____ To be free to do as I choose.
2. _____ _____ To have others agree with me.
3. _____ _____ To make friends with the unfortunate.
4. _____ _____ To be in a position of not having to follow orders.
5. _____ _____ To follow rules and regulations closely.
6. _____ _____ To have people notice what I do.
7. _____ _____ To hold an important job or office.
8. _____ _____ To treat everyone with extreme kindness.
9. _____ _____ To do what is accepted and proper.
10. _____ _____ To have people think of me as being important.
11. _____ _____ To have complete personal freedom.
12. _____ _____ To know that people are on my side.
13. _____ _____ To follow social standards of conduct.
14. _____ _____ To have people interested in my well being.
15. _____ _____ To take the lead in making group decisions.
16. _____ _____ To be able to do pretty much as I please.
17. _____ _____ To be in charge of some important project.
18. _____ _____ To work for the good of other people.
19. _____ _____ To associate with people who are well known.
20. _____ _____ To attend strictly to the business at hand.
21. _____ _____ To have a great deal of influence.

<u>MOST</u>	<u>LEAST</u>	
22. _____	_____	To be known by name to a great many people.
23. _____	_____	To do things for other people.
24. _____	_____	To work on my own without direction.
25. _____	_____	To follow a strict code of conduct.
26. _____	_____	To be in a position of authority.
27. _____	_____	To have people around who will encourage me.
28. _____	_____	To be friends with the friendless.
29. _____	_____	To have people do good turns for me.
30. _____	_____	To be known by people who are important.
31. _____	_____	To be the one who is in charge.
32. _____	_____	To conform strictly to the rules.
33. _____	_____	To have others show me that they like me.
34. _____	_____	To be able to live my life exactly as I wish.
35. _____	_____	To do my duty.
36. _____	_____	To have others treat me with understanding.
37. _____	_____	To be the leader of the group I'm in.
38. _____	_____	To have people admire what I do.
39. _____	_____	To be independent in my work.
40. _____	_____	To have people act considerately toward me.
41. _____	_____	To have other people work under my direction.
42. _____	_____	To spend my time doing things for others.

4

<u>MOST</u>	<u>LEAST</u>	
43. _____	_____	To be able to lead my own life.
44. _____	_____	To contribute a great deal to charity.
45. _____	_____	To have people make favorable remarks about me.
46. _____	_____	To be a person of influence.
47. _____	_____	To be treated with kindness.
48. _____	_____	To always maintain the highest moral standards.
49. _____	_____	To be praised by other people.
50. _____	_____	To be relatively unbound by social conventions.
51. _____	_____	To work for the good of society.
52. _____	_____	To have the affection of other people.
53. _____	_____	To do things in the approved manner.
54. _____	_____	To go around doing favors for other people.
55. _____	_____	To be allowed to do whatever I want to do.
56. _____	_____	To be regarded as the leader.
57. _____	_____	To do what is socially correct.
58. _____	_____	To have others approve of what I do.
59. _____	_____	To make decisions for the group.
60. _____	_____	To share my belongings with other people.
61. _____	_____	To be free to come and go as I want to.
62. _____	_____	To help the poor and needy.
63. _____	_____	To show respect to my superiors.

<u>MOST</u>	<u>LEAST</u>	
64. _____	_____	To be given compliments by other people.
65. _____	_____	To be in a very responsible position.
66. _____	_____	To do what is considered conventional.
67. _____	_____	To be in charge of a group of people.
68. _____	_____	To make all of my own decisions.
69. _____	_____	To receive encouragement from others.
70. _____	_____	To be looked up to by other people.
71. _____	_____	To be quick in accepting others as friends.
72. _____	_____	To direct others in their work.
73. _____	_____	To be generous toward other people.
74. _____	_____	To be my own boss.
75. _____	_____	To have understanding friends.
76. _____	_____	To be selected for a leadership position.
77. _____	_____	To be treated as a person of some importance.
78. _____	_____	To have things pretty much my own way.
79. _____	_____	To have other people interested in me.
80. _____	_____	To have proper and correct social manners.
81. _____	_____	To be sympathetic with those who are in trouble.
82. _____	_____	To be very popular with other people.
83. _____	_____	To be free from having to obey rules.
84. _____	_____	To be in a position to tell others what to do.

MOST LEAST

85. _____ _____ To always do what is morally right.
86. _____ _____ To go out of my way to help others.
87. _____ _____ To have people willing to offer my a
helping hand.
88. _____ _____ To have people admire me.
89. _____ _____ To always do the approved thing.
90. _____ _____ To be able to leave things lying around
if I wish.

APPENDIX 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 & 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) | | | |
| 3. College or university | B. | <input type="text"/> | (next best) |
| 4. Other types (please specify) | | | |
| | C. | <input type="text"/> | (third best) |

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
- More than 75%-----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

SECTION 2: Personal Information

9. 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

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

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

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 profession, or in the same place that you do, or that you otherwise contact in the pursuit of your job.

- 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

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
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
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?
 (Please write amount in box)-----

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.)

Please answer for each group.

Group	Excellent	Good	Fair	Poor	Don't Know
1. Elementary Sch.					
2. Secondary Sch.					
3. Universities					
4. Businessmen					
5. Labor					
6. Local Govern.					
7. Health Services (Drs. & Hosp.)					
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

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

31

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.

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

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

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
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

Good health-----5

Others (Specify) _____6

53. What do you think you can do to make this possible?

Nothing _____

APPENDIX A-5

HANDICAPPED PERSONS SCALE (ATDP)

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. 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. 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

3. Physically handicapped persons are just as intelligent 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

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 |

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 |

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 |

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 |

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 |

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-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.

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 deaf | |
| 5. Crippled or amputated limbs | 8. Speech disorders |
| | 9. None |

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 indicated that you have had experience with one or more of the above handicapped 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.

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 these 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

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

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.

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
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-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.
Raw score total - Content
2. Traditional attitudes, Items 3,4,6,10,11,12,13,14, 18,19.
Raw score total - Intensity
3. Progressive attitudes, Items 1,2,5,7,8,9,15,16,17,20.
Raw score total - Content
4. Progressive attitudes, Items 1,2,5,7,8,9,15,16,17,20.
Raw score total - Intensity
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
2. Handicapped Persons Scale, Items 1-20 (intensity)
Raw score total
3. Personal Questionnaire: HP, Item 8 (enjoyment of contact)

L. Contact with Handicapped Persons

1. Kinds of handicapped persons experienced
PQ-HP, Item 1 Most contact
PQ-HP, Item 2 Additional contacts
2. Type of relationship with handicapped
PQ-HP, Item 3
3. Frequency of contact with physically handicapped
PQ-HP, Item 4
4. Ease of avoidance of contacts with handicapped
PQ-HP, Item 5

5. Personal gain through working with handicapped persons
PQ-HP, Item 6 (experienced gain)
PQ-HP, Item 7 (% of income)
6. Frequency of contact with mentally retarded
PQ-HP, Item 9
7. Frequency of contact with emotionally ill
PQ-HP, Item 10

APPENDIX B-2

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 + or ++ 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."

*The present code book was compiled under the direction of Jordan (1964) and utilized in the Michigan study by Mader (1967) and with some modification by Green (1967).

Column- Ques.	Item Detail	Code	Recode
1,2,3	Nation and Location	United States 001 - Mich., Mt. Pleasant 002 - Mich., Cadillac 003 - Mich., Ann Arbor 004 - Mich., Port Huron 005 - Kan., Wichita 006 - Ohio, Tiffin 015 - Michigan 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 + - No Information, No response	
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 (Green)	1 - Elementary Teacher 2 - Secondary Teacher	

Column- Ques.	Item Detail	Code	Recode
<hr/>			
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 08 - Green: Michigan	
15,16	Day of Adminis- tration (Use the actual day)	1 to 31	
17, 18	Month of Administration	01 - January 02 - February 03 - March . . 10 - October 11 - November 12 - December	
19,20	Year of Administration	64 - 1964 64 - 1965 66 - 1966 . . 70 - 1970	

Column- Ques.	Item Detail	Code	Recode
21	Type of Administration	1 - Group 2 - Self-administered 3 - Interview, individual + - 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, pro- fessors, 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 (10-19, Educational personnel other than rehab. & spec. ed.) 10 - Elementary teachers (include elem. v.p.'s, counselors, etc.) 11 - Secondary teachers 12 - Guidance & personnel workers (psych., soc. work, counselor if not elementary) 13 - Other special services (Speech spec. teacher, audiometric, etc.) 14 - Administrative (elem., sec., central office <u>adm.</u> , including elem. principal, sec. v.p. & prin., etc., if non-teach.) 15 - University teachers, professors, researchers, specialists, etc. 16 - 19 Open	

Column- Ques.	Item Detail	Code	Recode
22,23	Occupation of Respondent* (Continued)	(20-25, Medical, other than rehab. & spec. ed.) 20 - General practitioners 21 - Surgeons 22 - Psychiatrists or psycho- analysts 23 - Dentists 24 - All other medical specialties 25 - Open 26 - Tech. & Prof.: Nurse O.T., P.T., R.T., Audio, etc. 27 - Non-tech. & non-prof.: aide, janitor, attendant, etc. 28 - 29 Open (30 - 39, Professional and Technical, not Spec. Ed. & Rehab. or Medical or Educ.) 30 - Engineers (degrees): civil, electrical, mechanical, etc.) 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 & Industry, Managers, officials, prop.'s) 40 - Gov't and other bureaucratic officials: public administrators 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.	

Column- Ques.	Item Detail	Code	Recode
22,23	Occupation of Respondent* (Continued)	<p>44 - General: i.e., manager, executive, etc., no other qualifications</p> <p>45 - Open</p> <p>(46 - 49, Farm owners, operators and managers of large farms, e.g., heavy equipment and/or many empl.)</p> <p>46 - Farm owner</p> <p>47 - Farm operator (renter)</p> <p>48 - Farm manager</p> <p>49 - Open</p> <p>(50 - 59, White Collar: office, clerical, etc.)</p> <p>50 - Clerical & similar: tellers, bookkeepers, cashiers, secre- taries, shipping clerks, attendants, telephone oper- ators, 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, machin- ists, tailors, toolmakers, etc.</p> <p>61 - Foreman: all construction, mfg., transportation & communi- cation, and other industries</p> <p>62 - Servicemen: telegraph, tele- phone, 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>	

Column- Ques.	Item Detail	Code	Recode
22,23	Occupation of respondent* (Continued)	<p>67 - Operatives of all other mech. equipment (machine, vehicle, misc. mfg.)</p> <p>68 - 69 Open</p> <p>(70-74, Service and Private Household workers)</p> <p>70 - Private household: laundress, housekeeper, cook</p> <p>71 - Firemen and policemen, sheriffs, and baliffs</p> <p>72 - Attendants, professional and personal (valet, masseur, misc. mfg.)</p> <p>73 - Misc. attendants and ser- vices: hospital attendants, bootblacks, cooks</p> <p>74 - Open</p> <p>(75-79, Military Personnel)</p> <p>75 - Ranking officers, all ser- vices (Navy Commander and up, Army and Marines Colonel and up)</p> <p>76 - Junior Officers, Army & Air</p> <p>77 - Junior Officers, Navy & Marines</p> <p>78 - Non-commissioned personnel, Army and Air</p> <p>79 - Non-commissioned personnel, Navy and Marines</p> <p>(80-86, Laborers)</p> <p>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)</p> <p>81 - Non-mfg., non-industrial: fishermen, hunters, lumbermen, miners, gardeners, teamsters, garage laborers, etc.</p>	

Column- Ques.	Item Detail	Code	Recode
<hr/>			
22,23	Occupation of respondent* (Continued)	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: rail- road, construction, trans- portation, workers, etc.	
		85 - 86 Open	
		87 - Persons have haven't worked, such as housewives, students, or others who have never had a regular occupation	
		88 - Don't know	
		+ - 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.

Column- Ques.	Item Detail	Code	Recode
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 house- wife) but formerly em- ployed 6 - Student or persons trained for employment but not working for various reasons + - No Information	
25 thru 44	1 thru 20 <u>Content**</u>	All questions in handi- capped per- sons scale are to be scored from raw data. See instruc- tions below.†	1 - 1 Strongly disagree 2 - 2 Disagree 3 - 3 Agree 4 - 4 Strongly agree

*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.

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 Handi-
capped Persons Scale (NOT the intensity response number) for items 2, 5, 6, 11, and 12, as follows:

The number of response 1 is changed to 4 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.[†]

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; (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).

[†]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).

Column Ques.	Item Detail	Code	Recode
45	1 Handicapped Persons	1 - 1	Not strongly at all
thru	thru Scale	2 - 2	Not very strongly
64	20 <u>Intensity</u>	3 - 3	Fairly strongly
	<u>intensity*</u>	4 - 4	Very strongly
65	3,4,6, Education Scale	1 - 1	Strongly disagree
thru	10,11, <u>Traditional</u> ,	2 - 2	Disagree
74	12,13, <u>Content Re-</u>	3 - 3	Agree
	14,18, <u>sponses**</u>	4 - 4	Strongly agree
19			

*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 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.

**Instructions for Coder: EDUCATION SCALE, TRADITIONAL, CONTENT, COLUMNS 65-74.

1. Items are to be scored as circled by the respondent.

2. Follow the procedures outlined in caps on Page 1-8, Handicapped Persons Scale. Be sure to score only those items indicated above as applying to the traditional scale, content.

Column- Ques.	Item Detail	Code	Recode
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 1-1	
10	Occupational Recode (Green)	Same as Card 1, page 1-1	
11,12	Deck or Card Number	02	
13,14	Project Director	Same as Card 1, page 1-2a	
15,16	Day of Administration	1 - 31	
17,18	Month of Adminis- tration	1 - 12	
19,20	Year of Adminis- tration	Same as Card 1, Page 1-2a	
21	Type of Adminis- tration	Same as Card 1, Page 1-2b	
22,23	Occupation of Respondent	Same as Card 1, Pages 1-2b, 1-3, 1-4, 1-5, 1-6	
24 thru 33	3,4,6, Education Scale, 10,11, <u>Traditional</u> , 12,13, <u>Intensity</u> 14,18, Responses* 19	1 - 1 Not strongly at all 2 - 2 Not very strongly 3 - 3 Fairly strongly 4 - 4 Very strongly	

*Instructions for Coder: EDUCATION SCALE, TRADITIONAL INTENSITY, COLUMNS 24-33.

1. Items are to be scored exactly as circled.

2. Follow the procedures outlined in caps on Page 1-8, Handicapped Persons Scale. Be sure to score only those items indicated above as belonging to the progressive scale.

Column- Ques.	Item Detail	Code	Recode
34 thru 43	1,2,5, 7,8,9, 15,16, 17,20 Education Scale, <u>Progressive</u> , <u>Content</u> <u>Responses*</u>	1 - 1 2 - 2 3 - 3 4 - 4	Strongly disagree Disagree Agree Strongly agree
44 thru 53	1,2,5, 7,8,9, 15,16, 17,20 Education Scale, <u>Progressive</u> <u>Intensity</u> <u>Responses**</u>	1 - 1 2 - 2 3 - 3 4 - 4	Not strongly at all Not very strongly fairly strongly Very strongly
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†	

*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 in page 1-8, Handicapped Persons Scale. Be sure to score only those items indicated above as belonging to the progressive scale.

**Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, INTENSITY, COLUMNS 44-53.

Same as instructions for Education Scale, Progressive Content, page 2-1.

†All 99's must be rescored at the median of the distribution for card punching, i.e., otherwise they add into the computations!

††Entires 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.

Column- Ques.	Item Detail	Code	Recode
60,61	<u>Raw I</u> <u>score</u> Value scale, <u>Inde-</u> <u>pendence score**</u>	01-32 no score*	
62,63	<u>Raw B</u> <u>score</u> Value scale, <u>Benevo-</u> <u>lence score**</u>	01 - 32 no score*	
64,65	<u>Raw L</u> <u>score</u> Value scale, <u>Leader-</u> <u>ship score**</u>	01 - 32 no score*	
66,67	Sum of Adjusted totals based item on item dichotomi- scores, zation, <u>H.P. Scale</u> , 1-20 <u>Content†</u> <u>Content</u>	00 - ? (Check dich. for no. no score†† to use here)	
68,69	Sum of Adjusted totals based item on item dichotomi- scores zation, <u>H.P. Scale</u> 1 - 20 <u>Intensity†</u> Intensity	00 - ? no score††	
70,71	Sum of Adjusted totals based item on item dichotomi- scores zation, <u>Education</u> 3,4,6,10, <u>Traditional Scale</u> , 11,12,13, <u>Content†</u> 14,18,19	00 - ? no score††	
72,73	Sum of Adjusted totals based item on item dichotomi- scores zation, <u>Education</u> 3,4,6,10, <u>Traditional Scale</u> , 11,12,13, <u>Intensity†</u> 14,18,19	00 - ? no score††	

*See footnote †, page 2-2.

**See footnote ††, page 2-2.

†See Card 1, page 1-8, instruction No. 5-f, to ascertain how adjusted total scores are obtained.

††All 99's must be rescored at the median of distribution for card punching, i.e., otherwise they add into the computations!

Column- Ques.	Item Detail	Code	Recode
<hr/>			
74,75	Sum of item scores 1,2,5,7, 8,9,15, 16,17,20	Adjusted totals based on item dichotomi- zation, <u>Education</u> <u>Progressive Scale</u> , <u>Content</u> *	00 - ? no score**
76,77	Sum of item scores 1,2,5,7, 8,9,15, 16,17,20	Adjusted totals based on item dichotomi- zation, <u>Education</u> <u>Progressive Scale</u> , <u>Intensity</u> *	00 - ? no score**

* See footnote †, page 2-3.

** See footnote ††, page 2-3.

Column- Ques.	Item Detail	Code	Recode
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 1-1	
10	Occupational Recode (Green)	Same as Card 1, Page 1-1	
11,12	Deck or Card Number	03	
13,14	Project Director	Same as Card 1, Page 1-2a	
15,16	Day of Administration	1 - 31	
17,18	Month of Administration	1 - 12	
19,20	Year of Administration	Same as Card 1, Page 1-2a	
21	Type of Administration	Same as Card 1, Page 1-2b	
22,23	Occupation of Respondent	Same as Card 1, Pages 1-2b, 1-3, 1-4, 1-5, 1-6	
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	

*If Box A, B, and C are not filled in, attempt to score from examining questions 2-6. If unable to answer, score +.

Column- Ques.	Item Detail	Code	Recode
26	1C Q'aire	<u>Third Best</u> 1 - 1 2 - 2 3 - 3 4 - 4	SAME
27	2(1-9) Recode from Column No. 30, Question 2(1-9)	<u>1</u> thru <u>5</u> = 1 - Yes, Personal 2 - No, Personal + - No contact	
28	2(1-9) Recode from Column No. 30, Question 2(1-9)	<u>6</u> thru <u>8</u> = 1 - Yes, Impersonal 2 - No, Impersonal + - No Contact	
29	Open	Open	
30 thru 38	2(1-9) Type of Educational thru Q'aire Contact. Score each of these alternatives as: Yes - <u>1</u> (i.e., if circled) No - <u>2</u> (i.e., if uncircled) OR - <u>+</u> 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	3 Q'aire Amount of Contact with Education	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	*

Column- Ques.	Item Detail	Code	Recode
40 4 Q'aire	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 5 Q'aire	Enjoyment of Edu- cational Work	1 - 2 Disliked 2 - 3 Not much 3 - 4 Somewhat 4 - 5 Enjoyed 5 - 1 No Experience	*
42 6 Q'aire	Alternative Work	1 - 3 Unavailable 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 Q'aire	Age	20 - 20 years 21 - 21 40 - 40	
45 10 Q'aire	Community in which reared. If more than one is checked try to determine in which one the respondent spent most of the time. If impossible, try to choose a median (i.e., country, city, score country town)	1 - 4 City 2 - 3 City suburb 3 - 2 Country town 4 - 1 Country 5 - 5 Other + - No response	*
46 11 Q'aire	Employment community	1 - 4 City 2 - 3 City suburb 3 - 2 Country town 4 - 1 Country 5 - 5 Other + - No response	*

Column- Ques.	Item Detail	Code	Recode
47 12 Q'aire	Recent Residence	1 - 4 City 2 - 3 City suburb 3 - 2 Country town 4 - 1 Country 5 - 5 Other + - No response	*
48 13 Q'aire	Marital Status	1 - 5 Married 2 - 1 Single 3 - 2 Divorced 4 - 3 Widowed 5 - 4 Separated + - No response	*
49,50 14 Q'aire	Number of Children. If blank, check Ques. 13. If single, score <u>00</u> ; if married, leave blank. <u>DO NOT</u> <u>USE 99!</u>	1 - 01 2 - 02 . . 10 - 10	
51,52 15 (A or B) Q'aire	Yearly Income If no response, <u>do not</u> score <u>99!</u>	01 - Less than \$1,000 02 - \$1,000 to \$1,999 03 - \$2,000 to \$2,999 . . 10 - \$9,000 to \$9,999 to 22 - \$21,000 and over	*
53 16 Q'aire	Comparative Income	1 - 5 Much lower 2 - 4 Lower 3 - 3 About the same 4 - 2 Higher 5 - 1 Much higher 6 - 8 No opinion + - + No response	*
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. <u>Do Not Score No</u> <u>Response 99!</u>	1 - 01 2 - 02 . . 10 - 10	

Column- Ques.	Item Detail	Code	Recode
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: Com- parative	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 + - No response	
62 21 Q'aire	Importance of Religion Self statement	1 - 1 Not very 2 - 2 Fairly 3 - 3 Very	*
63 22 Q'aire	Amount of personal relationship 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 relationships on the job	1 - 1 Not at all 2 - 2 Not very 3 - 3 Fairly 4 - 4 Very	*

Column- Ques.	Item Detail	Code	Recode
65 24 Q'aire	Diffusion of Job Relationships	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 up to 90% 7 - 7 Over 90% + - + 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 + - + No response	*
68 27 Q'aire	Social Class Position: Father	1 - 1 Lower 2 - 2 Middle 3 - 3 Upper 4 - 4 Other + - + No response	*
69 28 Q'aire	Amount of Education. If more than one answer is circled, choose the highest amount or determine the appropri- ate answer.	1 - 1 Three years or less 2 - 2 Six years or less 3 - 3 Nine years or less 4 - 4 Twelve years or less 5 - 5 Some college 6 - 6 Degree 7 - 7 Work beyond degree 8 - 8 Advanced degree 9 - 9 Other	*
70 29 Q'aire	Education: Self- Comparative	1 - 1 Much less 2 - 2 Less 3 - 3 Average 4 - 4 More 5 - 5 Much more	*

Column- Ques.	Item Detail	Code	Recode
71 30	Education: Father-	1 - 1 Much less	*
Q'aire	Comparative	2 - 2 Less	
		3 - 3 Average	
		4 - 4 More	
		5 - 5 Much more	
72 31	Type of Living	1 - 1 Rent house	*
Q'aire	Arrangement	2 - 2 Rent apartment	
		3 - 3 Rent room	
		4 - 4 Purchase room and board	
		5 - 5 Own apartment	
		6 - 6 Own house	
		7 - 7 Other	
73 32	Rent per month	1 - \$20 or less	*
(A or B)		2 - 21 - 40 (dollars)	
		3 - 41 - 75	
		4 - 76 - 125	
		5 - 126 - 200	
		6 - 201 - 300	
		7 - 300 or more	
		+ - + No response	

Column- Ques.	Item Detail	Code	Recode
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 1-1	
10	Occupational Recode (Green)	Same as Card 1, Page 1-1	
11,12	Deck or Card Number	04	
1,314	Project Director	Same as Card 1, Page 1-wa	
15,16	Day of Administration	1 - 31	
17,18	Month of Administration	1 - 12	
19,20	Year of Administration	Same as Card 1, Page 1-2a	
21	Type of Administration	Same as Card 1, Page 1-2b	
22,23	Occupation of Respondent	Same as Card 1, Pages 1-2b, 1-3, 1-4, 1-5, 1-6	
24 33-1	Satisfaction with Elementary Schools	1 - Poor 2 - Fair 3 - Good 4 - Excellent**	*
25 33-2	Satisfaction with Secondary schools	Same as **	*
26 33-3	Satisfaction with Universities	Same as **	*
27 34-4	Satisfaction with Businessmen	Same as **	*
28 33-5	Satisfaction with Labor	Same as **	*

Column- Ques.	Item Detail	Code	Recode
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 **	*
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 + - + No response	
34 36	Employment Change	1 - 1 Yes 2 - 2 No + - + No response	
35 37	Frequency of Residency 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 1-2b, 1-3, 1-4, 1-5, 1-6	

**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.

Column- Ques.		Item Detail		Code		Recode
39	40	Observance of Religious Rules	1 - 1 2 - 2 3 - 3 4 - 4	Seldom Sometimes Usually Almost always		*
40	41	Health Practice Change	1 - 5 2 - 4 3 - 2 4 - 1 5 - 3	Yes Maybe Probably not No Don't know		*
41	42	Child Rearing Practices Change	1 - 5 2 - 4 3 - 3 4 - 2 5 - 1	Strongly agree Slightly agree Don't know Slightly disagree Strongly disagree		*
42	43	Birth Control Practices	1 - 1 2 - 2 3 - 3 4 - 4	Always wrong Usually wrong Probably right Always right		*
43	44	Change of Political Leaders	1 - 5 2 - 4 3 - 3 4 - 2 5 - 1	Strongly agree Slightly agree Don't know Slightly disagree Strongly disagree		*
44	45	Aid to Education	1 - 5 2 - 4 3 - 3 4 - 2 5 - 1	Strongly agree Slightly agree Don't know Slightly disagree Strongly disagree		*
45	46	Personal Change--Ways	1 - 4 2 - 3 3 - 2 4 - 1	Very easy Somewhat easy Slightly difficult Very difficult		*
46	47	Commitment to Rules	1 - 1 2 - 2 3 - 3 4 - 4 5 - 5	Agree strongly Agree slightly Don't know Disagree slightly Disagree strongly		*

7/16

Column- Ques.		Item Detail	Code	Recode
47	48	Routine Job Duties	1 - 1 Agree strongly 2 - 2 Agree slightly 3 - 3 Dont' know 4 - 4 Disagree slightly 5 - 5 Disagree strongly	*
48	49	Parental Ties	Same	*
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 & Divorce 3 - Friends 4 - Religion (Satisfaction with life) 5 - Money 6 - Job 7 - Education 8 - Health (Mental & Physical) 9 - No response	*

HANDICAPPED PERSONS QUESTIONNAIRE

53	1 Q-HP	Primary Contact Group	1 - 1 Blind 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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Column- Ques.	Item Detail	Code	Recode
54 2 Q-HP	Other Contact Groups	If there was no con- tact 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 Handicapped Persons. If a single response is circled, use the digit-to-digit system. If <u>more</u> than one is circled use the com- bined categories and code as <u>7</u> or <u>8</u> .	<div> <div>8</div> <div> <div>1 - 6</div> <div>2 - 5</div> <div>3 - 4</div> </div> <div> <div>4 - 3</div> <div>5 - 2</div> <div>6 - 1</div> <div>7 - 9</div> </div> <div> <div>Father, etc.</div> <div>Other relative</div> <div>Worked</div> <div>Friend</div> <div>Studied</div> <div>Little</div> <div>Self</div> </div> </div>	<div> <div>*</div> <div>per-</div> <div>sonal</div> <div>imper-</div> <div>sonal</div> </div>
59 4 Q-HP	Amount of Contact	<div>1 - 1 Less than ten</div> <div>2 - 2 Ten to fifty</div> <div>3 - 3 Fifty to 100</div> <div>4 - 4 100 to 500</div> <div>5 - 5 Over 500</div>	*
60 5 Q-HP	Ease of Avoidance	<div>1 - 1 Great difficulty</div> <div>2 - 2 Considerable difficulty</div> <div>3 - 3 Some inconvenience</div> <div>4 - 4 No inconvenience</div>	*
61 6 Q-HP	Material Gain from Contact	<div>1 - 1 Paid</div> <div>2 - 2 Credit</div> <div>3 - 3 No rewards</div> <div>4 - 4 Paid and credit</div>	*
62 7 Q-HP	Percent of Income from Work with Handicapped	<div>1 - 1 Less than 10%</div> <div>2 - 2 10 to 25%</div> <div>3 - 3 25 to 50%</div> <div>4 - 4 50 to 75%</div> <div>5 - 5 Over 75%</div> <div>6 - 6 If 3 is circled in No. 6 or if they have never worked with handicapped</div>	*

Column- Ques.	Item Detail	Code	Recode
63 8 Q-HP	Feelings About Contact	1 - 1 Disliked, great 2 - 2 Disliked, little 3 - 3 liked, some 4 - 4 Definitely en- joyed	*
64 9 Q-HP	Amount of Contact with <u>Mentally 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 Ill</u>	Same	*
66,67 Sum of item scores 1 - 20 <u>Content</u>	Handicapped Persons Scale. Total <u>Con-</u> <u>tent</u> Raw score entry on transcription sheet	00 - 80 Do Not Use <u>99</u> *	
68,69 Sum of item scores 1 - 20 <u>Intensity</u>	Handicapped Persons Scale. Total <u>In-</u> <u>tensity</u> Raw score entry on transcrip- tion sheet	00 - 80 Do Not Use <u>99</u> *	
70,71 Sum of item scores 3,4,6, 10,11, 12,13, 14,18,19	Education Scale, <u>Traditional, Raw</u> <u>Content</u> score entry on transcription 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>Traditional, Raw</u> <u>Intensity</u> score entry on transcription sheet	00 - 40 Do Not Use <u>99</u> *	

Column- Ques.	Item Detail	Code	Recode
<hr/>			
74,75	Sum of item scores 1,2,5, 7,8,9, 15,16, 17,20	Education Scale, Pro- gressive, Raw Content, score entry on transcription 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, Pro- gressive, Raw Inten- sity, score entry on transcription sheet	00 - 40 Do Not Use <u>99</u> *

APPENDIX B-3

**SPECIAL INSTRUCTIONS AND FCC I AND FCC II
VARIABLE-COMPUTER PRINT-OUT CODE FORMS**

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 FCC I and II programs
3. Individual Item and Scale Location
4. Category: type of variable
5. Name: item content

FCC I

Card 1

Field No.	Question	Variable Name	Column
1	Face Sheet of Scales	Sex	8
2	39 Q'aire	Special Education Occupation	9

Card 2

First 23 Columns SAME as Card 1 except for Col. 12 (Card No.)

Card 3

3	1-A-Q'aire	Level of Educ. Contact-First	24
4	3-Q'aire	Contact-(Amount of Education)	39
5	4-Q'aire	Contact-(Gain from Education)	40
6	5-Q'aire	Contact-(Enjoyment-Education)	41
7	6-Q'aire	Contact-(Alternatives to Education)	42
8	10-Q'aire	Early Youth Community	45
9	13-Q'aire	Marital Status	48
10	21-Q'aire	Religion (Importance)	62
11	28-Q'aire	Education (Self-amount)	69

Card 4

12	33-1-Q'aire	Institutional satisfaction (Elem. Sch.)	24
13	33-2-Q'aire	Institutional satisfaction (Sec. Sch.)	25

FCC I (Continued)

Field No.	Question	Variable Name	Column
14	33-3-Q'aire	Institutional satisfaction (Universities)	26
15	33-4-Q'aire	Institutional satisfaction (Businessmen)	27
16	33-5-Q'aire	Institutional satisfaction (Labor)	28
17	33-6-Q'aire	Institutional satisfaction (Government)	29
18	33-7-Q'aire	Institutional satisfaction (Health Services)	30
19	33-8-Q'aire	Institutional satisfaction (Churches)	31
20	40-Q'aire	Religiousity (norm-conformity)	39
21	41-Q'aire	Change orientation (Health-practice)	40
22	42-Q'aire	Change orientation (Child rearing)	41
23	43-Q'aire	Change orientation (Birth control)	42
24	45-Q'aire	Education (Aid to)	44
25	46-Q'aire	Change orientation (Self)	45
26	47-Q'aire	Change orientation (self-rule adherence)	46
27	48-Q'aire	Change orientation (self-routine job)	47
28	50-Q'aire	Personalism (Other orientation)	49
29	51-Q'aire	Future Orientation (Planning)	50

FCC I (Continued)

Field No.	Question	Variable Name	Column
30	3-Q-HP	Contact (Varieties)	58
31	4-Q-HP	Contact (Amount)	59
32	5-Q-HP	Contact (Ease of avoidance)	60
33	6-Q-HP	Contact (Gain from)	61
34	8-Q-HP	Contact (Enjoyment of)	63
35	9-Q-HP	Contact (Mentally retarded)	64
36	10-Q-HP	Contact (Emotionally disturbed)	65

FCC II

Field No.	Question	Variable Name	Column
Card 2			
1	Value Scale	Support Value	54,55
2	Value Scale	Conformity Value	56,57
3	Value Scale	Recognition Value (comparative)	58,59
4	Value Scale	Independent Value	60,61
5	Value Scale	Benevolence Value	62,63
6	Value Scale	Leadership Value (comparative)	64,65
Card 3			
7	9 Q'aire	Age	43,44
Card 4			
8	39 Q'aire	Occupation (specific)	37,38
9	HP Scale	HP Total <u>Content</u> Raw Score	66,67
10	HP Scale	HP Total <u>Intensity</u> Raw Score	68,69
11	Education Scale	Trad. Educ. Total <u>Content Raw Score</u>	70,71
12	Education Scale	Trad. Educ. Total <u>Intensity Raw</u> Score	72,73
13	Education Scale	Prog. Educ. Total <u>Content Raw Score</u>	74,75
14	Education Scale	Prog. Educ. Total <u>Intensity Raw</u> Score	76,77

APPENDIX B-4

DATA TRANSCRIPTION SHEET

ATTITUDES TOWARD EDUCATION: INTERNATIONAL 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. _____ (64)	_____ (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. _____	_____ (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. _____

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