

THE PSYCHOSOCIAL NATURE AND DETERMINANTS OF
ATTITUDES TOWARD EDUCATION AND TOWARD
PHYSICALLY DISABLED PERSONS IN JAPAN

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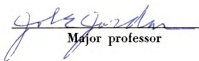
THE PSYCHOSOCIAL NATURE AND DETERMINANTS
OF ATTITUDES TOWARD EDUCATION AND TOWARD
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ABSTRACT

THE PSYCHOSOCIAL NATURE AND DETERMINANTS OF ATTITUDES TOWARD EDUCATION AND TOWARD PHYSICALLY DISABLED PERSONS IN JAPAN

by William Conrad Cessna, Jr.

The purpose of this study was to investigate the theoretical, methodological, and technical questions pertaining to the cross-national investigation of attitudes.¹ The relationship between (a) attitudes, (b) interpersonal values, (c) personal contact with education and disabled persons, and (d) certain demographic variables were examined. The assumption was that these variables may be determinants of attitudes.

The study was conducted in Tokyo, Japan in 1965. A battery of five research instruments were administered: (a) Attitudes Toward Disabled Persons Scale (ATDP), (b) Education Scale (traditional and progressive), (c) Gordon Survey of Interpersonal Values (SIV), (d) Personal Questionnaire, and (e) Personal Questionnaire-Handicapped Persons. Administration time was approximately two hours.

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



The sample consisted of 211 respondents from known occupational groups: (a) special education and rehabilitation personnel (SER), (b) elementary and secondary teachers (E), (c) low income, white and blue collar workers (L), and (d) business and government managers and executives (M).

The theoretical orientation of the study was social-psychological with a focus on the influence of contact variables (such as frequency, enjoyment, ease of avoidance) and interpersonal values (asset and comparative) on the differential attitudes of known occupational groups. Asset values were operationalized by Benevolence; comparative values by Leadership and Recognition (SIV).

Statistical analyses included descriptive statistics (frequency column count), analysis of variance (controlled for sex and group), and correlational analyses (zero-order, partial, and multiple).

The study was based on five sets of hypotheses. The major hypotheses examined (a) scaling, (b) contact frequency, intensity, and attitude scores, (c) attitude and value scores, (d) change orientation and attitude scores, and (e) characteristics of the SER group.

Analysis of the data revealed the following significant findings. High frequency of contact resulted in high intensity scores for the ATDP scale. High frequency of

WILLIAM CONRAD CESSNA, JR.

contact, if accompanied with alternative rewards, enjoyment of contact, and ease of avoidance of contact resulted in positive ATDP scores.

As hypothesized, high Leadership scores resulted in high traditional attitudes toward education. Recognition scores were not differentially related to the attitude scores. Benevolence scores were not significant for the occupational groups but were significant for the sexes; females had higher scores than males.

High change orientation scores were correlated with progressive attitudes toward education.

The SER group had higher Benevolence scores than all groups in the sample, lower Leadership scores than the M group, and lower Recognition scores than the L group. The SER group also had lower traditional attitudes toward education scores than all groups but not higher progressive attitude scores. All groups indicated a transitional or progressive orientation to change, with no significant group differences. The SER group had more contact with mentally retarded and emotionally disturbed persons than the other groups.

A major research task was the development of a rationale and technique for determining cross-cultural comparability of input data. Concept equivalence was attempted by using Japanese professional rehabilitation personnel to translate



WILLIAM CONRAD CESSNA, JR.

and supervise the administration of the instruments. Scaling was also proposed as another approach to concept equivalence. However, scaling was not attempted because of computer programming difficulties. It was recommended that Guttman-Lingoes Multiple Scale Analysis - I (1965), which allows for multidimensional and multi-unidimensional analysis of data, be used in future studies for this purpose.

The majority of the hypotheses were confirmed or the results were in the direction hypothesized. However, the confounding of certain data (e.g., low traditional attitudes toward education but not high progressive attitudes toward education for the SER) suggests that the complex nature of attitudes and their relationship to other logical constructs, such as values and personal contact, needs further extensive research.

A major implication of the present research is the need for future studies of attitudes toward significant social objects to cope with the problem of concept equivalence by constructing a comprehensive, interrelated battery of instruments capable of adequately sampling the attitude universe being considered. Facet theory, as proposed by Guttman was suggested as one possible approach to this problem.

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TOWARD EDUCATION AND TOWARD PHYSICALLY DISABLED
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By

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I am grateful to the members of the advisement committee for their guidance throughout my program of study at Michigan State University, and for their assistance in the completion of this research project. Dr. John E. Jordan (Chairman) has provided support and inspiration beyond that expected. Being associated with him in a rigorous cross cultural research effort has been a rich professional experience. Dr. Normal Abeles, Dr. Cole S. Brembeck, Dr. Gregory A. Miller, and Dr. Edgar A. Schuler have given helpful suggestions which are deeply appreciated.

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Their skillful effort was a major contribution to this research project. Without their understanding and help in translating, administering, and scoring the instruments, the study would have been substantially restricted. Special appreciation is due the institutions with which Messrs Takase, Tsujimura, and Misawa are affiliated for their financial assistance in providing materials and personnel for translating, mimeographing, and scoring the instruments.

The Computer Center at Michigan State University provided facilities and counsel; without such services, the extensive statistical analyses would have been greatly limited. Miss Katherine Morris assisted in preparing the raw data for card punching and Miss Susan Speer provided computer programming. A training grant from the Vocational Rehabilitation Administration, U. S. Department of Health, Education and Welfare made the research financially feasible.

To my wife, Opal, my daughter, Kandi, and my son, Stephen, I acknowledge the largest debt of gratitude. Their patience, understanding, encouragement, and occasional prodding have been instrumental in the completion of the study. To them I dedicate this work.

1

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 was both necessary and desirable.

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

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS.	11
PREFACE	1v
LIST OF TABLES	1x
LIST OF FIGURES	xiii
LIST OF APPENDICES	xiv
Chapter	
I. INTRODUCTION.	1
Nature of the Problem	2
Statement of the Problem	8
Definition of Terms.	9
Organization of the Thesis	14
II. REVIEW OF THEORY AND RELATED RESEARCH	16
Attitudes Toward Education	17
Attitudes Toward Disability	25
Attitude and Value Orientations.	30
Value Variation Among Groups	33
Value Variations of Rehabilitation Groups.	34
Measurement of Values	36
Attitude Intensity and Personal Contact	40
Empirical Research on Attitudes Toward the Physically Disabled.	41
Cross-National Studies	44
Social Contact and Informational Studies	47
Cross-Cultural Studies	52
Types of Disability	58
The Measurement of Attitudes.	60
General Considerations	60
Cross-National Research and Scale Analysis	61
Scale Analysis.	62
Scale and Intensity Analysis in Relation to Cross-National Problem of Comparability of Responses	65



III. METHODOLOGY AND PROCEDURES	68
Rationale for Selecting Sample from Japan	68
General Description of Japan.	69
Geography	69
Population	70
Economics	71
Politics	72
Education	73
Special Education and Rehabilitation Services	76
Research population	79
Selection of Variables.	79
Attitudes Toward Physical Disability	80
Attitudes Toward Education	81
The Intensity Scales	82
Interpersonal Values	83
Personal Contact Variables	85
Contact with Education	86
Contact with Physically Disabled.	86
Preferences for Personal Relationships.	86
Religiosity.	87
Institutional Satisfaction.	87
Change Orientation	88
Demographic Variables	89
Collection of Data	89
Statistical Procedures.	90
Descriptive.	90
Scale and Intensity Analysis	90
Mean Differences Analysis	92
Relational and/or Predictive Analysis	94
Major Research Hypotheses.	96
Hypotheses Related to Scaling.	96
Hypotheses Related to Contact Frequency, Intensity, and Attitude Scores.	98
Hypotheses Related to Value and Attitude Scores.	100
Hypothesis Related to Change Orientation and Attitude Scores	103
Hypotheses Related to Characteristics of Those Working directly with Disabled Persons (SER)	103
Limitations of the Study	106



Chapter	Page
IV. ANALYSIS OF THE DATA	109
Section 1: Descriptive Data.	109
Differences in Mean Education, Income and Age Scores Between Interest, Male, and Female Groups	112
Summary of Descriptive Data in Tables 3-6	116
Section 2: Hypotheses Testing, Mean Differences, and Correlational Analyses.	118
Hypotheses Related to Scaling.	118
Hypotheses Related to Contact Frequency, Intensity and Attitude Scores	119
Hypotheses Related to Attitude and Value Scores.	126
Hypothesis Related to Change Orientation and Attitude Scores	138
Hypotheses Related to the Character- istics of Those Working Directly With the Disabled Persons (SER)	140
Differences Between the Various Occupational Groups on Mean Scores on the Value Sub-scales	151
Sex Differences as Indicated by Mean Scores on the Value Sub-scales	151
Differences Between Male and Female Mean Scores on Attitude Variables.	154
V. DISCUSSION, RECOMMENDATIONS, AND SUMMARY	158
Part I: Discussion of Results	159
Scale and Intensity Analysis in Relation to Attitudes.	159
Contact Frequency in Relation to Intensity	161
Contact Variables in Relation to Attitudes	163
Value Variables in Relation to Attitudes.	165
Change Orientation Variables in Relation to Attitudes	167
Group Differences in Relation to Values, Attitudes, Change Orientation, and Contact Variables	170



Chapter	Page
Part II: Discussion of Theoretical and Methodological Issues	174
Theoretical Issues	175
Methodological Issues	178
Part III: Recommendations	183
Recommendations Related to Sampling.	183
Recommendations Related to Instrumentation	183
Recommendations Related to Statistical Analysis	186
Part IV: Concluding Summary	189
REFERENCES	192
ADDENDUM TO REFERENCES	208
APPENDICES	210



LIST OF TABLES

Table	Page
1. Distribution of respondents according to sex and interest group	110
2. Occupational composition of total sample by sex and interest group	111
3. Comparison of mean differences, standard deviations, <u>F</u> statistics, and Duncan's Multiple Means Test results in respect to three demographic variables for four occupational categories	113
4. Duncan's New Multiple Range Test applied to means of education scores for four occupational categories	114
5. Comparison of mean differences, standard deviations, and <u>F</u> statistics in respect to three demographic variables for males and females	115
6. Interpretation of education scores in terms of actual educational attainment.	115
7. Means, standard deviations, and <u>F</u> statistic comparing high and low frequency of contact with disabled persons with intensity scores on the ATDP scale.	120
8. Means, standard deviations, and <u>F</u> statistic comparing high and low frequency of contact with education with intensity scores on the Progressive Attitude Toward Education scale	121
9. Means, standard deviations, and <u>F</u> statistic comparing high and low frequency of contact with education with intensity scores on the Traditional Attitude Toward Education scale	122
10. Zero-order correlations between amount of contact and intensity scores on the attitude scales for the occupational groups	123



Table	Page
11. Partial and multiple correlations between Attitude Toward Disabled Persons and Attitudes Toward Education (both progressive and traditional) as related to contact variables	125
12. Means, standard deviations, and <u>F</u> statistic comparing high and low scores on Leadership value and Attitudes Toward Disabled Persons scores	126
13. Means, standard deviations, and <u>F</u> statistic comparing high and low scores on Leadership value and Progressive Attitude Toward Education scores.	127
14. Means, standard deviations, and <u>F</u> statistic comparing high and low scores on Leadership value and Traditional Attitude Toward Education scores.	127
15. Means, standard deviations, and <u>F</u> statistic comparing high and low scores on Recognition value and scores on the Attitudes Toward Handicapped Persons Scale.	128
16. Means, standard deviations, and <u>F</u> statistic comparing high and low scores on Recognition value and scores on the Progressive Attitude Toward Education scale.	129
17. Means, standard deviations, and <u>F</u> statistic comparing high and low scores on Recognition value and scores on the Traditional Attitude Toward Education scale.	129
18. Means, standard deviations, and <u>F</u> statistic comparing high and low scores on Benevolence value and scores on the Attitudes Toward Disabled Persons scale.	130
19. Means, standard deviations, and <u>F</u> statistic comparing high and low scores on Benevolence value and scores on the Progressive Attitude Toward Education scale.	131
20. Means, standard deviations, and <u>F</u> statistic comparing high and low scores on Benevolence value and scores on the Traditional Attitude Toward Education scale.	131



Table	Page
21. Means, standard deviations, and <u>F</u> statistic for Benevolence scores, ATDP scale scores, and Progressive Attitudes Toward Education scores for males and females.	133
22. Zero-order correlations between Attitude Toward Disabled persons scale (content) and the Gordon value scale, for four occupational groups	136
23. Zero-order correlation between Attitude Toward Education (content) and Gordon value scale for four occupational groups.	137
24. Partial and multiple correlations between attitudes toward handicapped persons and attitudes toward education (both progressive and traditional) as related to change orientation variables	139
25. Means, standard deviations, <u>F</u> statistic, and mean rankings for Attitude Toward Disabled Persons scores for four occupational categories.	140
26. Means, standard deviations, <u>F</u> statistic, mean rankings and Duncan's Test results for Benevolence value scores for four occupational categories	142
27. Means, standard deviations, <u>F</u> statistic, mean rankings and Duncan's Test results for Leadership value scores for four occupational categories.	142
28. Means, standard deviations, <u>F</u> statistic, mean rankings, and Duncan's Test results for Recognition value scores for four occupational categories.	143
29. Means, standard deviations, <u>F</u> statistic, and mean rankings for Progressive Attitude Toward Education scores for four occupational categories.	144
30. Means, standard deviations, <u>F</u> statistics, mean rankings, and Duncan's Test results for Traditional Attitude Toward Education scores for four occupational categories	145



Table	Page
31. Means, standard deviations, F statistic, mean rankings, and Duncan's T Test results for six change variables for four occupational groups.	149
32. Means, standard deviations, F statistic, mean rankings, and Duncan's T Test results related to contacts with mentally retarded and emotionally disturbed persons for four occupational groups.	150
33. Comparison of mean differences, standard deviations, F statistic, and mean rankings for three value variables, and four occupational categories	152
34. Comparison of mean differences, standard deviations and F statistic in respect to six value variables for males and females. . .	155
35. Sex difference scores on various national groups on sub-scales of the Survey of Interpersonal Values (Gordon, 1963) . . .	156
36. Comparison of mean differences, standard deviations and F statistics in respect to three attitude variables for males and females.	157
37. Summary of hypotheses 1 through 13 indicating confirmation or non-confirmation	160



LIST OF FIGURES

Figure	Page
1. Basic facets used to determine component structure of attitude universe	185
2. A Mapping Sentence for the facet analysis of attitudes toward education	187
3. A Mapping Sentence for the facet analysis of a research project on cross-cultural attitudes toward education	188



LIST OF APPENDICES

A. Statistical Material

1. Means, Standard Deviations, and Number of Respondents for 63 Variables for the Total Sample, Males, and Females by Occupational Groups

B. Instrumentation

1. Education Scale
2. Survey of Interpersonal Values
3. Personal Questionnaire
4. Handicapped Persons Scale
5. Definitions of Physical Handicap
6. Personal Questionnaire: Handicapped Persons
7. Rationale and Procedures for Producing Item "Directionality"

C. Variables, Administration Procedures, and Code Forms

1. Basic Variables of the Study
2. Administration Procedures
3. Code Book
4. Special Instructions for Japan
5. Data Transcription Sheet
6. FCC I and II Variable Computer Print Out
7. Methods of Sample Selection

CHAPTER I

INTRODUCTION

The concept of social and cultural change has been the subject of considerable research by social scientists. There is also a "continuing strong interest" in the study of the diffusion of innovation. Fliegel and Kivlin (1966, pp. 235-248) cite the need to develop a parsimonious explanation of the adoption of new ideas and practices. Executives in business, education, politics, and religion are vitally interested in the implications of change within cultures and across cultures.

Since change is an essential element in every situation in which man is involved, an interest in theories of change is of practical importance to professional change agents and to private citizens interested in human progress. The task of the social scientist, as a change agent, is to engage in purposeful, planned change in relation to four dynamic systems: the individual personality, the face-to-face group, the organization, and the community (Lippitt, Watson, and Westley, 1958, p. 5).

Nature of the Problem

Educators have a paradoxical role; they favor innovation and change, yet are intent in transmitting the traditions of their particular culture. For Maritain (1965, pp. 38, 39), the aim of education involves two primary objectives: guiding the person as he "shapes himself as a human person...while at the same time conveying to him the spiritual heritage of the nation and the civilization...preserving...century-old achievements of generations." Educators are also innovators and consumers of technological change (Trump, 1961), often focusing on the content of change while ignoring or over simplifying the process of change.

Administrators must cope with change which is often given its primary impetus from outside the formal organization and the "number of innovations is inversely proportional to the tenure of the chief administrator" (Griffiths, 1964, p. 434). However, forces within a system or organization may also tend to initiate change (Miles, 1964, pp. 645-647).

Psychologists are interested in personal change (Kell and Mueller, 1966; Wrenn, 1962). The concern is not whether change will occur, but whether change shall be beneficial to the greatest possible number of people. Wrenn cites several areas where change has vast implications for increasing understanding among individuals and nations



including the following: the pressure of population growth, the "Automation Revolution", changing family patterns, the creation of super cities, and the general increase of wealth.

The effect of social change is seen in a lack of self-identity, or "the fulfillment of man as a human person" (Maritain, 1965, p. 42). The problem narrows to a search for meaning. How can one find meaning when the social ills of increasing industrialization evade solution? How can one find meaning when "what a man can produce" becomes more important than his intrinsic worth?

The search for meaning is intensified for the handicapped or disabled person. In societies where a person gains self-identity primarily through his occupation or profession, the loss of the ability to function vocationally, results in a loss of self-identity. In many countries, facilities designed to habilitate or rehabilitate the culturally, intellectually, physically, and emotionally handicapped are meager. In many Latin American countries, special education and rehabilitation programs are yet to be adopted into the educational and social systems. However, there are innovators who recognize the current and increasing need for services for the disabled (Jordan, 1963, 1964a), and who welcome support from constructive change agents such as universities and scholars. In Asia, some countries have only minimal services

available whereas in other countries, facilities are varied, plentiful, and well equipped (Taguchi, 1965b).

Increased concern with physical disability is evidenced by expanded programs sponsored by such organizations as the United Nations and the International Society for the Rehabilitation of the Disabled (ISRD). Advances in the medical sciences, and the dissemination of information and medicines throughout the world via public health agencies have markedly reduced death rates (Davis, 1963). This wider use of preventive and remedial procedures in medical treatment has resulted in an increase in the number of children with physical disabilities since many of these disabled children would have died in infancy in previous generations (Meyerson, 1963).

There is a great need for broader communication about attitudes and programs already developed or being developed among workers in special education and rehabilitation throughout the Americas, Europe, and Asia as was evidenced by the Second International Seminar on Special Education at Nyborg, Denmark (July, 1963) and the Third Pan Pacific Rehabilitation Conference (April, 1965). Communication of research results to professional colleagues is the final and most valuable step in the research endeavor. Adequate communication involves the presentation of relevant data in such a lucid form that colleagues can understand, evaluate, and replicate the research (Lippitt et al., 1966, p. 273).



Normative data indicates what is permissible within a given culture and which groups are most sympathetic and receptive toward the projected programs. In the United States, normative data aids in understanding the attitudes of sub-cultural groups such as the culturally disadvantaged and ethnic minorities and facilitates the provision of adequate educational, vocational, and rehabilitation programs. In Japan knowledge of the effect of geographical isolation on attitudes and cultural patterns are vital in determining national goals in education and rehabilitation.

An important guideline for conducting the present kind of research involves the development of a comprehensive cross-national and cross-cultural research program aimed at delimiting the similarities and differences in attitudes toward physical disability and toward the educational process. These findings can subsequently be integrated into a more general conceptual framework. An adequate methodological approach will consider the diverse cultures and social systems, aiming at comparability of data from one national/cultural/linguistic setting to another (UNESCO, 1964).

Although the present research is guided by a pragmatic and humanistic concern over the welfare of persons with disabilities, a theoretical framework is invaluable in giving adequate substantive foundation and direction to the study, resulting in a pragmatic relevance for researchers,

teachers and rehabilitation personnel in various countries. Such a theoretical base should increase the power and scope of the study and provide an orienting purpose beyond the immediate pragmatic and humanistic objectives of the project (Goode and Hatt, 1952, pp. 9-16).

Lippitt et al., (1958), in discussing the role of the change agent, suggests several tasks he may perform. These include diagnosis (What is the trouble? What is causing the trouble?), assessment of motivation to change, assessment of change agent's motivations and resources, selection of appropriate change objectives, choice of appropriate helping role, and establishment and maintenance of the helping relationship. Also potentially involved in the change agent's tasks are (a) the choice of specific techniques and modes of behavior for the change agent and (b) research, leading to a refinement of the skills and theories which were utilized (Lippitt et al., 1958, pp. 91-126).

In terms of the Lippitt et al. (1958) model, the current research focuses primarily on the "diagnosis" aspect and the assessment of motivation and capacity to change. A broader research effort will integrate the findings of this study which will ultimately result in completion of the research tasks outlined by Lippitt.¹

¹The broader, long range research program is being developed by Dr. John E. Jordan and a number of his doctoral students in the College of Education at Michigan State University. Data will be collected in several nations in Latin America, Asia, and Europe, and in the United States.

The present research can be conceptualized as involving theoretical, methodological and technical problems. The theoretical problem to be investigated will be restricted to the prediction of certain behavioral correlates of attitude. The main focus will be on the inter-relationships among certain variables related to interpersonal values, personal contact with disabled persons, and attitudes with the assumption that both value and contact variables are instrumental in determining attitudes (Yuker, 1965).

The methodological problem to be investigated is that of developing an adequate solution to the problem of cross-national/cultural/linguistic comparability of data units (UNESCO, 1964).

The technical problem to be investigated has two aspects: logistical and statistical. The logistical problem involves the development of relationships with competent researchers and political officials interested in giving assistance with the research, including translating questionnaires into comparable language, selecting the sample, and obtaining necessary clearances. The statistical aspect involves scoring, organizing, and processing the data systematically in a way suitable for the comparison of a variety of cultural analyses.

In summary the aim of the research project is

to define and limit the variables as clearly as possible and to find the best way to measure the aspects of a given change situation which

are judged important, without losing sight of the larger complex of variables in which particular factors of interest are embedded (Lippitt et al., 1958, p. 266).

Statement of the Problem

The purpose of this study is to investigate the theoretical, methodological, and technical questions pertaining to the cross-national investigation of attitudes toward education and toward physical disability. Using a set of instruments in an attempt to elicit attitudes to be used in cross-national comparisons, an attempt will then be made to relate these attitudes to other demographic variables such as age, sex, and income which, from a theoretical standpoint, should serve as either correlates or predictors. A final aspect of the study is to develop a set of techniques to facilitate the collection, organization, and analysis of data in subsequent studies.¹

Psychological theory suggests that values are important determinants of attitudes. Concerning physically disabled persons, it has been suggested that persons who generally value others as having intrinsic worth are more likely to hold favorable attitudes toward the disabled than are those who value others according to more absolute comparative standards. A comparison of attitudes toward education can also be made on the favorable-unfavorable continuum. Therefore, one problem to be investigated is whether such

¹See footnote on page 6.

value-attitude relationships can be empirically obtained.

Theory also suggests that the quantity and quality of interpersonal contact with a sub-group (disabled or ethnic) are determinants of attitudes. A second problem then, is to determine the amounts and kinds of experiences respondents have had with disabled persons and with educational institutions and to determine how this data is related to attitude scores.

Definition of Terms

The following terms are operationally defined as they are used in the 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 for scale and intensity analysis.

Attitude Component Components of attitudes have been discussed by various investigators (Katz, 1960, p. 168; Rosenberg, 1960, p. 320 ff; Guttman, 1950, Ch. 9). The two components typically considered are those of belief and intensity, although Guttman defines additional components



according to certain mathematical properties. In the attitude scales used, the first component of an item will be that of item content (or belief), the second that of item intensity (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 (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 to the personal 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 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 A defect in tissue or in body structure. As such it has no particular functional connotations.

Institutional Satisfaction A term used to describe a set of variables on which the respondents were asked to indicate how well they felt various kinds of local institutions were doing their jobs in the community. These institutions were schools, business, labor, government, health services, and churches (or religion).

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, 1960).

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

Physical Disability A functional term denoting some loss of the tool function of the body. An approximate synonym is physically "incapacitated." In the English version of the scale the term "handicapped" was used since it appeared to be a more meaningful term. The technical distinction between handicap and disability is usually 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).

Relational Diffusion A term 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 to be a distinguishing characteristic of traditional social patterns (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 characterizes educational practices "that are unique, uncommon, of unusual quality, and in particular are in addition to the organizational 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 categories are used, but defined operationally by the same set of measures. Asset values predispose a person to evaluate others according to their own unique and inherent qualities. Comparative values predispose a person to evaluate others according to some preconceived 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 are measured by the Benevolence Scale. Comparative Values are measured by the Recognition and Leadership Scales. These three scales have adequate face validity for the measurement of the asset and comparative values proposed by Wright. Other value orientations measured by the Gordon Survey of Interpersonal

Values are labeled Support, Conformity and Independence.

Organization of the Thesis

The thesis is organized as follows:

In Chapter I, the need and purpose of the study, and an overview of the thesis is introduced.

In Chapter II, a review of the theory, and research relevant to the study is presented. The major divisions of the review include the following:

1. A theoretical framework for attitudes toward education.
2. A theoretical framework for attitudes toward disability.
3. A theoretical framework for value orientations.
4. Research conclusions related to the relationship of values and personal contact to attitudes.
5. Research conclusions related to attitudes toward the physically disabled.
6. A theoretical framework for the measurement of attitudes.

In Chapter III, the procedures and methodology used in the study are outlined and explained. A general description of Japan and of the research population is given. The instrumentation of the study and the statistical procedures used in the analysis of the data are included.

In Chapter IV, the research results are presented in tabular and descriptive form.

In Chapter V, a summary of the results, conclusions, and recommendations are presented.

Some of the theoretical foundations alluded to in Chapter I will be given more detailed consideration in the following chapter on Review of Theory and Related Research.

CHAPTER II

REVIEW OF THEORY AND RELATED RESEARCH

Many attempts have been made to define theory, both philosophically and scientifically. Stefflre (1965) cites several definitions of theory, all of which have two common elements: reality and belief. Reality is the perceptual world we try to understand and explain. Belief, as used here, is the acceptance of explanations which seem to fit the data in a logical manner. Theory may thus be conceptualized as

- a human convention for keeping data in order
- a provisional systemization of events...which enable us to see relationships
- a conceptual model
- a cluster of relevant assumptions systematically related to each other and a set of empirical definitions
- a possible world which can be checked against the real world (Stefflre, 1965, pp. 1, 2).

The theory reviewed here are partially verified assumptions which suggest interrelationships among certain variables. In this frame of reference, theory may facilitate scientific research by defining the major orientation of a science, by proposing a conceptual scheme for classifying relevant phenomena, by abstracting empirical generalizations, by predicting further relationships (facts)

and by revealing gaps in our current understanding of the data (Goode and Hatt, 1952, p. 8).

In this chapter, theory and research will be presented as a "provisional systemization of events." The topics to be reviewed include attitudes toward education, attitudes toward disability, attitudes and value orientations, attitude intensity and personal contact, empirical research, measurement of attitudes, and problems of cross-cultural measurement.

Attitudes Toward Education

Although a vast amount of current literature is devoted to the exploration of the relationship of education to innovation and social change, as noted in Chapter I, there has been surprisingly little theoretical discussion about the basic variables or factors underlying attitudes toward education. Concerning the absence of empirical research, Miles (1964) makes the following observation:

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 (p. 2).

Kerlinger has developed a theoretical model which includes progressive and traditional dimensions of attitudes toward education. According to Kerlinger, educational attitudes can be conceptualized as two relatively independent factors or variables, representing two distinct ideologies: traditional and progressive. In this model, traditionalism apparently is not just the opposite of progressivism in education. The opposite of progressivism is anti-progressivism. Traditionalism seems to have an existence of its own. Rather than conceiving traditionalism as simply the negation of progressivism, as is usually done, it might better be conceived as a positive affirmation which emphasizes a conservative-traditional approach to educational issues and problems. Progressivism also seems to be a positive affirmation in its own right. When we say a man is an "educational progressivist" we do not mean only that he is an anti-traditionalist. While this is undoubtedly true, it is more important to suggest that progressivism is an independent stance in its own right (Kerlinger, 1958, pp. 296, 330).

Kerlinger defines a restrictive-traditional factor as one emphasizing subject matter for its own sake. The hierarchial nature of impersonal, superior-inferior relationships is considered important as is an emphasis on external discipline. In such a system, social beliefs are preserved through the maintenance of the status quo. In contrast,

the permissive-progressive factor emphasizes the problem solving approach and de-emphasizes subject matter as the primary focus of education. In this frame of reference, education is viewed as a growth experience with the child's interests and needs being given primary attention. Equality and warmth in interpersonal relationships are valued. There is an orientation toward internal rather than external discipline and social beliefs tend to be liberal, emphasizing education as an instrument of change and as learning to live (Kerlinger, 1958, p. 112).

This orientation corresponds with the philosophical position of Dewey (1938). He states that, in traditional education "the subject-matter of education consists of bodies of information and of skills that have been worked out in the past; therefore, the chief business of the school is to transmit them to the new generation" (p. 17). He contends that progressive education, which is characterized by the cultivation of individuality, learning through experience, and becoming acquainted with a changing world, is a product of discontent with traditional systems (pp. 18-20).

Kerlinger's theory may be summarized in four propositions:

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 expectations, and (d) authority, discipline (Kerlinger, 1956, p. 290).

Based on the implications of these observations and propositions, Kerlinger designed a study which investigated the educational attitudes of professors and laymen. The sample consisted of 25 subjects chosen on the basis of both their occupational roles and their 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

A statement expressing 1(a) might be: The true view of education is to arrange for learning in such a way that the child gradually builds up a storehouse of knowledge that he can use in the future. A statement illustrating 2(a) might be: Knowledge and subject matter are not as important as learning to solve problems involved in daily living. An illustration of 1(m) might be: One of the big difficulties with today's schools is that discipline is often sacrificed to the narrow interests of the children. An example of 2(m) would be: True discipline springs from interests, motivation and involvement in problem solving experiences.

Kerlinger summarizes the traditional-progressive concept in this way:

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 (Kerlinger, 1956, p. 312).

This study by Kerlinger indicates that occupational roles and role expectations are dynamic independent variables influencing attitudes. Individuals having similar roles might be expected, therefore, to have similar attitudes and a similar attitude structure.

Smith (1963), a student of Kerlinger, hypothesized that progressivism and traditionalism are basic dimensions of educational attitudes and that they emerge and remain factorially invariant under different conditions of item sampling and subject sampling. She also postulated a relationship between attitudes toward education and general social attitudes. Individuals holding progressive educational attitudes would tend to be liberal in their social attitudes while persons having conservative social attitudes would be expected to be traditional in their educational attitudes.

In two Q sorts, consisting of 140 attitude statements pertaining to all aspects of education, Smith found that progressive and traditional factors of the Q sort remained

invariant as hypothesized. Other factors which emerged from one of the sorts were labeled "moral values" and "interpersonal relations." On a third Q sort, liberalism and conservatism emerged as basic dimensions of social attitudes in the direction of the research hypothesis. Two additional factors, "internationalism" and "religious tenents," were indicated by the third Q sort.

Block and Yuker (1965) developed the Intellectualism-Pragmatism (I-P) Scale in an attempt to measure intellectual attitudes. Though intellectualism is not operationally defined, it is contextually inferred to be an intellectual orientation resulting from academic exposure. Their research indicates that intellectualism is associated with a progressive attitude toward education, as measured by the Kerlinger Education Scale and the I-P Scale. Contrary to expectations, 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 Scales (ATDP) (Yuker et al., 1960). Students exhibiting the greatest change in their attitudes toward disabled persons, as measured by the ATDP, also scored highest on the intellectualism scale. They concluded that some types of education bring about attitude changes that are related to an increased intellectual orientation.

In a related study, Kramer used Rokeach's Dogmatism Scale and Kerlinger's Education Q sorts, in an effort to measure the interrelation of belief systems and the educational values of teachers. His findings indicate that in contrast to "closed-minded" teachers, "open-minded" teachers were more consistent and held permissive-progressive attitudes and that the more "open-minded" a teacher's belief system, the greater the likelihood for an internally consistent progressive educational attitude. While the "closed-minded" teachers were less consistent than the "open-minded" teachers, they were more consistent than those who had no clear cut belief system (Kramer, 1963).

In a study designed to measure liberal beliefs and consistency of beliefs, Lawrence (1963) used the Scale of Beliefs on Social Issues which appeared to differentiate between liberal and conservative beliefs. Kerlinger's Education Scale II was also used to measure both progressive attitudes toward education and attitudinal consistency. The findings of Lawrence did not support earlier research indicating a differentiation between progressive and traditional attitudes toward education.

Taylor (1963) used Kerlinger's Education Scale II to investigate the relationship between basic educational attitudes and participation in professional teacher activities, and the relationship of basic educational attitudes to the educational background of teachers. Her

research indicated 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 concluded that 29% of the teachers had attitude scores that almost certainly indicated either traditionalism or progressivism.

A study of the changes in attitudes of prospective teachers toward education and teaching in secondary schools by Anderson (1964) revealed that student teachers generally did not change their 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. Several factors responsible for producing attitude change were identified, including kind of interaction with those whom student teachers came in contact, effectiveness of the school program, and attitudes formulated before student teaching began.

Attitudes Toward Disability

Investigators in the field of special education and rehabilitation have noted the inadequacy of much of the special education and rehabilitation research, and have called for a greater involvement in studies with theoretical relevance and consequently greater generality (Block, 1955; Kvaraceus, 1958; Levine, 1963; and Meyerson,

1955, 1963). Felty¹ (1965) noted, however, that certain research studies in physical disability have been theoretically derived, and that other research can be shown to have theoretical relevance although an explicit theory is lacking. He further noted that an analysis of these studies should suggest ways in which they can be related to broader social, social-psychological or psychological theory, leading to the formulation of new hypotheses which can be empirically tested.

One conceptual frame of reference by which rehabilitation theory can be systematized is that of social change (Straus, 1966). He notes that non-disabled persons often respond to disabled persons with anxiety which may produce such prejudicial behavior as scapegoating and viewing the disabled as "inferior, immoral and dangerous to the 'good' society" (Straus, p. 6). The disabled person may respond to such attitudes with feelings of bitterness and depression which may be revealed in "paranoiac kinds of behavior" (p. 6).

Straus notes that there has been a change in the basic philosophy of rehabilitation programs since the initial federal programs of 1918-1920 which focused primarily on the rehabilitation of World War I veterans, enabling them

¹Felty's (1965) pilot study in Costa Rica has provided invaluable insights to the development of the present study.

to become engaged in remunerative occupations. Prior to the passage of extensive rehabilitation program legislation, hearings held in 1961 and 1962 emphasized the need to make rehabilitation services available to all persons without regard for employability potential. In 1965, employability requirements were reduced, demonstrating in a practical way the "significant changes in social values and broader support in the society at large [for assuring] all citizens opportunities for at least a minimum adequacy in education, health care, and conditions of living" (Straus, p. 23).

Several changes in values and attitudes have made expanded rehabilitation programs possible. Foremost among these is a shift in emphasis from manpower related concerns to an emphasis on the intrinsic mental health of the disabled, his family and society (a shift from comparative to asset values). Utilitarian arguments have been strengthened however; rehabilitation services enable many persons to be removed from welfare rolls and become tax-paying contributors to society. In the future, current trends indicate that rehabilitation concepts "will be cast in a broader social frame of reference more integrally identified with the problems of adaptation to technological change and with national goals of achieving a greater degree of health, economic security, and equality of opportunity for all" (Straus, p. 34).

The theoretical orientation of the present study is essentially social-psychological, and is generally consistent with that of Wright (1961), and Meyerson (1955, 1963) in the area of physical disability. Concepts central to this orientation are self, other, reference groups, role, attitude and value which are related to interpersonal interaction. The underlying assumptions of the social-psychological orientation, according to Shibutani (1961, pp. 22-24), are as follows: (a) behavior is motivated through the give and take of interpersonal adjustment, both the person and society are products of communication, (b) personality is continually reorganized and constructed in the day-by-day interactions with others, and (c) culture consists of models of proper conduct hammered out and reinforced by communications and by grappling with life conditions. In the present study, the concepts of attitude and value will be explored with a focus on the attitudinal implications of interpersonal contact, value organization, social norms, and role behavior, as perceived by the respondents.

In this frame of reference, Levine (1961) suggests that disability is not an isolated empirical fact but a social value judgment:

These values relate to society's perception of leadership, contributions toward improving society, 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 (p. 84).

In more general terms, Levine suggests a relationship between social role, role perception, role value, and attitude. "Being a family head" and "being a good citizen" are two of many roles having value in maintaining society. Role fulfillment may be perceived as the fulfillment of an obligation to society, and people are evaluated by the way they are perceived as meeting these role obligations. Levine has further suggested that groups are stereotyped according to their social contributions (Levine, 1961, p. 84). Persons with some negative characteristic such as blindness, crippling condition, or skin color are categorized according to whether others perceive them as being able to maintain certain valued social roles.

More recently, Friedson (1966) has suggested that one of the tasks of rehabilitation agencies is to delimit "handicap" which is "often historically and culturally variable" (p. 71). Friedson concurs with Levine (1961) that there is a devaluation of the handicapped person who is seen as a deviant from what is considered normal or appropriate. Thus a handicap becomes a socially (not physically) undesirable deviation from normalcy. In many cases the

disabled person is aware of these devaluing attitudes and the stigma attached to his condition. On the other hand, reacting to the devaluation of disabled persons, rehabilitation agencies and personnel are "too prone to ignore the fact that [stigma] exists socially in the community" (Friedson, 1966, p. 96).

As noted in Chapter I, and by Straus (1966), a change in social attitudes results in the provision of a wider range of rehabilitation services to a greater proportion of the handicapped population. Friedson (1966) suggests that a concept like deviance may be used as a tool to question current rehabilitation concepts and procedures, subsequently resulting in a determination of which aspects of rehabilitation, including attitudes toward the disabled, require "deliberate change" (p. 99).

Attitudes and Value Orientations

The values one holds may be considered as dynamic motivations. In the determination of attitudes, values are an important source of prejudice or negative stereotype (Allport, 1958). According to Allport, "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). He further states that "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). Again, "one type of categorization that predisposes us to make unwarranted prejudgments is our personal values" (p. 27).

Katz relates attitudes and values by ascribing a "value-expressive function" (Katz, 1960, p. 173) to attitudes in which attitudes confirm and clarify for others, and for the person himself, those things which are most important and central to his image. In discussing the relationship of attitude to value in terms of attitude change, he notes 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). Since people are generally inclined to change or renounce attitudes appearing as inconsistent or unrelated to central values, Katz would expect a high degree of consistency between a basic value (such as equality) and a more specific attitude (such as being favorable toward providing opportunities for the disabled).

Rosenberg (1956, 1960) points out an instrumental relationship between the positive and negative aspects of attitude and value. Stable positive attitudes are perceived as being instrumental to positive value attainment and the blocking of negative values. Conversely, stable



negative attitudes are perceived as being 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). Rosenberg found moderate attitudes (rather than intense ones) to be related to less important values or, in the case of important values, the instrumental relationship of the attitude to the value attainment was not accurately perceived by the subject.

Rosenberg's analysis resulted in a broadening of the concept of attitude to include a positive-negative affective component and a belief component. Typically, attitudes have been concerned with the affective component while beliefs have usually been considered separately. In considering prejudice, Allport (1958, pp. 12-13) states that "there must be an attitude of favor or disfavor; and it must be related to an overgeneralized (and therefore erroneous) belief." Osgood (1957, p. 190) uses a restricted connotation of attitude as "the evaluative dimension of the total semantic space."

The position of Rosenberg is supported by his own research (1956), and by that of Cartwright (1949), Smith (1949), and Woodruff and DiVesta (1948). Guttman (1950) also prefers this broader concept of attitude, though primarily on logical rather than experimental consideration.

Changes in prejudicial attitudes (including affective and belief components) toward Negro mobility were studied by Carlson (1956). He found that 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. The change was interpreted as an inconsistency between the cognitive (belief) component and the affective value component.

Research involving hypnosis and post-hypnotic suggestion in respect to changing either the belief or the affective components was conducted by Rosenberg (1960, pp. 225-230). Though his conclusions were concerned primarily with attitude structure and change, they also support the previously discussed research findings, that the instrumentality of a belief to a valued goal is associated with a corresponding and direction-related affective component.

Value Variation Among Groups

Values may vary among groups and societies since the type of role behavior perceived to be important may vary. Classical sociological and typological formulations of societies, as summarized by Loomis (1960) and Becker (1950), are stated in terms of social structure and value orientations. For the purposes of this study, three types of societies may be considered: traditional, transitional, and modern, each representing a point along a continuum.

Persons in a modern society are characterized as possessing values that are more affectively neutral, achievement and change oriented, more materialistic, instrumental and universalistic than those held by persons in a traditional society. Latin American society can thus be described as traditional or transitional and the United States as a modern society (Williams, 1963, pp. 415-470; Parsons and White, 1961; Loomis, 1961; and Almond and Coleman, 1960). Japan may also be classified as a modern society (Norbeck, 1965).

Applying these concepts to physical disability, a logical inference is that diverse value orientations are associated with variations in attitudes toward particular disability groups. It seems reasonable to conclude that disability groups will be evaluated idiosyncratically, depending upon the perception of their relative ability to meet valued role requirements.

Value Variations of Rehabilitation Groups

Jordan (1963, 1964) has suggested that in Latin America, those persons employed in the areas of rehabilitation and special education differ in values from the majority of the population. In discussing these differences (see Almond and Coleman, 1960; Rogers, 1962, and Katz et al., 1963), he describes the various types of groups and associations in society, and the process of innovation diffusion. No

attempt will be made here to summarize the vast sociological literature from which this data was drawn. However, Jordan (1963) has postulated that rehabilitation and special education groups in Latin America are characterized by rather modern values (p. 22) of "democracy, constitutionalism, humanism, the scientific process and universal suffrage" (p. 17) and more generally by "specificity, universalism, achievement, and affective neutrality" (p. 16).

It has been suggested that this complex interaction of attitudes and values can be simplified by bifurcating values according to their derivation, whether they derive from comparisons or from intrinsic assets (Dembo, Leviton, and 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. 29).

Some situations, such as hiring personnel for a particular type of job, require the application of comparative standards of evaluation. In other situations, the person with the asset value orientation may be able to evaluate the disabled person for his own unique characteristics as a



human being. Being aware that such asset orientations may arouse skepticism, Wright notes that "incredulity shades into understanding when one considers that walking itself is always a remarkable achievement" (Wright, 1960, p. 29).

The economic argument, that education and training are cheaper than public support, has gained wide support. However, the whole concept of special education and rehabilitation may be considered a response to the asset values of a society (Straus, 1966). The direct antithesis of this position is exemplified in a society where educational opportunity is based on some comparative standard, either a hereditary standard or an achievement standard. The hereditary standard makes comparisons with the past whereas the achievement standard makes comparisons with present norms. An inference based on the asset-comparative value framework is that those persons working in special education and rehabilitation have higher asset values than those working in other occupations, regardless of the location of the social system on the modern-traditional continuum.

Measurement of Values

Various models have been developed to explain and illustrate the content of one's value structure. One of the earliest formulations was Spranger's (1928) intuitive classification of men into six general types in an attempt to describe several distinct behavior patterns. He

asserted that man can be understood best through a study of their personal values. The six basic values (they may also be called interests or motives) which Spranger used to describe types of men are: Theoretical, Economic, Aesthetic, Social, Political and Religious.

An attempt was made to study the six values empirically by Allport, Vernon, and Lindzey (1951) by constructing the Study of Values, a scale based directly on Spranger's Types of Men (1928). A major criticism of Spranger's model is that it infers a "somewhat flattering view of human nature" since no attention is given to "formless or valueless personalities nor for those who follow an expedient or hedonistic philosophy of life" (Allport et al., 1960, p. 3). However, both Spranger and Allport et al. attempt to allow for the "baser" values by reducing them to economic and aesthetic values.

As noted above, the scales used in the Study of Values are conceptualized as an attempt to empirically validate Spranger's Types of Men which are summarized below. For descriptive purposes "ideal types" are identified.

The Theoretical: Interest in discovery of truth emphasizing cognitive activity in an attempt to order and systematize knowledge.

The Economic: Interest in what is useful, pragmatic. Often in conflict with other values such as religion and social.

The Aesthetic: Greatest interest in form and harmony; the opposite of the theoretical. Individuality important.



The Social. Love is most important, especially its altruistic or philanthropic aspects. In purest form, the Social is quite close to the Religious.

The Political. Major focus on the attainment of personal power, influence and renown.

The Religious: Search to understand the cosmos as a whole and man's relation to it.

Mixture: Spranger and Allport et al. indicate that these six categories are not mutually exclusive, and that a given man may be a "mixture" of more than one of these values.

In agreement with Spranger and Allport et al., Gordon (1960, p. 3) asserts that "a person's motivational patterns or the values he holds" are important in personality assessment.

A person's values may determine to a large degree what he does or how well he performs. His immediate decisions and his life goals are influenced, consciously or unconsciously, by his value systems. His personal satisfaction is dependent to a large extent upon the degree to which his value systems can find expression in everyday life. The presence of strong, incompatible values within the individual, or conflict between his values and those of others, may affect his efficiency and personal adjustment (Gordon, 1960, p. 3).

Gordon's attempt to measure values resulted in a six scale instrument (Survey of Interpersonal Values) which was developed through the use of factor analysis. The six scales are described as follows:

Support: Being treated with understanding, receiving encouragement from other people, being treated with kindness and consideration.

Conformity: Doing what is socially correct, following regulations closely, doing what is accepted and proper, being a conformist.



Recognition: Being looked up to and admired, being considered important, attracting favorable notice, achieving recognition.

Independence: Having the right to do whatever one wants to do, being free to make one's own decisions, being able to do things in one's own way.

Benevolence: Doing things for other people, sharing with others, helping the unfortunate, being generous.

Leadership: Being in charge of other people, having authority over others, being in a position of leadership or power (Gordon, 1960, p. 3).

In a study designed to determine the relationship existing between the Study of Values and the Survey of Interpersonal Values, the inter-correlations indicated that the two scales "moderately overlap" in what they measure and the relationships "appear to be quite reasonable" (Gordon, 1960, p. 7). The Theoretical is positively correlated with Leadership and Independence (.42 and .36 respectively). Other positive correlations are Economic with Recognition (.29); Social with Benevolence and Conformity (.59, .26); Aesthetic with Independence (.46); Political with Leadership and Recognition (.30, .17); Religious with Benevolence and Conformity (.52, .37).

The Gordon Survey of Interpersonal Values will be used in the present study as a measure of asset values (Benevolence) and comparative values (Recognition and Leadership). This instrument will also be used as a measure of traditional and progressive attitudes (see Instrumentation for Hypotheses 5a, 5b, 6a, 6b, 7a, 7b, 7c, and 10).



Attitude Intensity and Personal Contact

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

Research has suggested that intensity is also an important component of attitude structure in determining the "zero point" of a scale that differentiates the psychological "true" positive attitude direction from the "true" negative attitude direction. This may not be the same as the actual scale numbers (Guttman, 1947, 1950, 1954; Guttman and Foa, 1951; Guttman and Suchman, 1947; Suchman and Guttman, 1947; Suchman, 1950; Foa, 1950, Edwards, 1957).

In considering the relationship between attitude and action, Rosenberg states that

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 the attitude, the stronger must be the action-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).

Besides increasing predictability, attitude intensity can be used in locating the "true" zero point of a scale

in which the area of content has been found to be scalable (Guttman, 1947). Locating a true zero-point appears to have the highly desirable characteristic of elimination of question bias which often minimizes the value of cross-lingual studies (Foa, 1950; Suchman and Guttman, 1947; and Guttman, 1954b).

In reference to personal contact, Homans (1950, p. 112) indicates that the frequency of contact between groups or persons and favorableness of attitude are related, with the converse also being true. Zetterberg (1963) reviews the social contact considerations of Malawski in which the effects of frequency of social contact on liking or disliking are dependent on two variables: the cost of avoiding a particular contact and the availability of better 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" (Zetterberg, 1963, p. 13).

Allport (1958, pp. 250-268), in examining various kinds of intergroup contact, concludes that "equal status contact" creates more favorable attitudes when the contact is in pursuit of common goals (p. 267). The effect of a casual contact is unpredictable but it may reinforce negative stereotypes (p. 252). Status was 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 primarily with lower status Negroes (pp. 254, 261-2).

Jacobson, Kumata, and Gullahorn (1960, pp. 210-213) considered research related to inter-group contact that was primarily between cultures. They suggest that contact with persons of equal status are more likely to develop friction if the basis of the status equality is uncertain in that one group does not fully accept the other group as being in an equal status position.

The following is a summary of the foregoing discussion of personal contact. Frequent contact with a person or group is likely to produce more favorable attitudes if:

1. the contact is between status equals in pursuit of common goals (Allport, 1958, p. 267);
2. the contact is perceived as instrumental to the realization of a desired goal value (Rosenberg, 1960, p. 521);
3. the contact is with members of a higher status group (Allport, 1958, pp. 254, 261-2);
4. the contact is among status equals and the basis of status is unquestioned (Jacobson et al., 1960, pp. 210-213);
5. the contact is volitional (Zetterberg, 1963, p. 13); and

6. the contact is selected over other rewards,
(Zetterberg, 1963, p. 13).

Empirical Research on Attitudes
Toward the Physically Disabled

A number of studies have considered attitudes toward specific kinds of physical impairment in various settings in the United States. These have been reviewed in general reference works such as those by Barker, Meyerson, and Gonic, (1953); Wright, (1960), and Cruickshank, (1955, 1963), some of which will be discussed in this section.

Barker et al. (1953, pp. 74-76) attempted an analysis of attitudes as expressed in religion, fiction, and humor, resulting in the finding that religion and fiction showed considerable variation in attitudes expressed. Jokes about physical disability tended to be more depreciating than jokes about other groups such as farmers or salesmen. In another study, Barker and Wright (1955) found that some people mask their unfavorable attitudes toward disability; verbalizations pertaining to physical disability tend to be favorable. Thus, jokes might provide a disguised outlet for unfavorable feelings which are not usually verbalized.

A research program reported by Duntzman et al. (1966) had two major aims: (a) to examine the personality and other characteristics which might discriminate among students entering several health related professions and (b) to identify the variables related to academic and job

success in each of the selected health related professions. Eight studies were conducted, one of which involved the administration of Attitudes Toward Disabled Persons (ATDP) scale in an attempt to differentiate attitudes of freshman and sophomore female white students according to their curriculum preference: physical therapy (PT), occupational therapy (OT), medical technology (MT), and education and nursing (O for others).

It was predicted that OTs, and PTs would have a more favorable attitude toward disabled persons than would MTs and Os. A simple analysis of variance indicated however, that there were no significant differences among the four groups. Since the MTs had the lowest score (more favorable) in the direction opposite from that hypothesized, Duntzman et al. (1966, pp. 28-29) suggest that the ATDP may be measuring the degree to which people view the disabled person as different from the normal individual. This notion, if correct, would indicate scores in the direction obtained empirically in the Duntzman et al. study.

Cross-National Studies

Felty (1965) and Friesen (1966)¹ indicated that apparently there had been no studies that dealt directly with

¹Friesen's (1966) thesis on attitudes toward physical disability and toward education in Colombia, Peru and the United States has contributed materially to the present study on Japan.



the problem of cross-national attitudes in relation to disabled persons. However, recently completed studies by Siller (1963), Siller and Chipman (1964), and LeCompte and LeCompte (1966) examined the attitudes of Turkish and American college students.

Siller (1963) studied the attitudes of a sample (548) of junior high school, high school, and college middle class students drawn from New York city and suburbs. Three instruments were used in the study: Yuker's Attitudes Toward Disabled Persons scale, Feeling Check List, and Social Distance Scale. Factor analysis of the data indicated that femininity was most related to acceptance of the disabled. Other variables found to be related to positive attitudes toward the disabled were low rigidity, authoritarianism, and aggressiveness, and positive scores on endurance, nurturance, affiliation and change.

Several clinical observations made by Siller (1963) were based on empirical data but not statistically tested. He posits that an attitude score which is atypical of the sample in either a positive or negative direction "generally reflects a particular experience" (p. 15) with a handicapped person. He also noted a difference in the attitudes of respondents, depending on the hypothesized conditions under which contact with disabled persons was made. While 30% of the sample indicated feeling toward a disabled person "the same as with most people" (p. 15),

nine percent of the sample indicated the acceptance of such a person as a spouse.

A factor analytic study of the Attitudes Toward Disabled Persons scale (Yuker, 1960) was designed by Siller and Chipman (1964) and was based on a sample of over 1100 junior high school, high school, and college students, and female adults drawn from the New York city area.

Although Yuker indicated that to believe the disabled person is different from the non-disabled is synonymous with non-acceptance of the disabled, the study by Siller and Chipman indicates that a low score on the ATDP may be indicative of non-judgmental acceptance. Two factors derived from their study of the ATDP scale are Benevolent Inferiority and Negative Atypicality. Benevolent Inferiority may involve perception of the disabled as being inferior but lead to constructive, supportive action on behalf of the disabled. Attitudes of Negative Atypicality, on the other hand, would tend to promote such behavior as segregation and aversion. The findings of this study also indicated that amount of experience (contact) with the disabled had only "trivial correlation" with attitudes.

The LeCompte and LeCompte (1966) study is based on the findings of Siller (1963) and Siller and Chipman (1964). Three scales, the Attitudes Toward Disabled Persons (ATDP), the Feeling Check List and the Social Distance Scale were administered to a sample of Turkish college students. The



scores were then compared with the scores of a sample of New York college students. Although the two samples are not completely comparable, the sex distribution in both samples was approximately even and other variables were similar.

LeCompte and LeCompte hypothesized that, because of various religious and social influences derived from the Koran (such as enduring rather than changing "fate"), there would be a greater indication of attitudes of inequality and non-acceptance of the disabled people in Turkey than in the United States. Findings reported by the authors indicate that the college major, and sex of the respondents were not significantly related to attitude scores. The F test did not reveal any significant relationship between amount of contact and ATDP scores. These findings related to sex and amount of contact agree with those of Siller and Chipman (1964). A significant relationship was found to exist between amount of contact and the Feeling Check List total scores. Analysis of the ATDP total scores for the New York and Turkish samples showed a significant difference (.001 level) between sample means with the Turkish sample expressing more devaluating or non-accepting attitudes toward disabled persons.

Social Contact and Information Studies

The Attitudes Toward Disabled Persons (ATDP) scale and Rokeach's Dogmatism Scale were administered to a sample of

University of Illinois and University of Indiana students. Since the University of Illinois has more extensive programs for disabled persons than does the University of Indiana, Genskow and Maglione (1965) hypothesized that greater "familiarity" with disabled persons at the University of Illinois would result in greater acceptance of the disabled. Analysis of the data resulted in scores for the "familiar" group being significantly more positive than those for the group less familiar with disabled persons. The greater contact with disabled persons resulted in more positive ATDP scores and lower dogmatic scores on the Dogmatism Scale. The authors state that the Illinois sample may be positively biased toward the disabled persons since passing a rigorous screening program by disabled persons is required for admission. This notion correlates with Siller (1963) that an atypical attitude, either positive or negative reflects a specific experience.

Another approach to the investigation of the contact variable was taken by Meissner (1965) in a study of the relationship between a personal disability and attitudes toward the handicapped. Using a sample of 382 high school Juniors from three Wisconsin high schools, several scales including the Attitudes Toward Physical Disability (ATDP) were administered. The respondents' relationship to disability ranged from no disability to severe disability. Analysis of the data showed that for males, the ATDP mean



scores were significantly more positive for the males not having a disability. A lower mean score for the disabled may be considered a measure of the self-concept. For females, having a disability did not affect attitudes significantly. The least positive attitude scores were held by those adolescents who had "disabilities" which were neither obvious nor severe. For the total group, there were no significant differences between males and females.

Bell (1962) compared the attitudes toward physical disabilities of rehabilitation and non-rehabilitation workers in a hospital setting. The sample included three groups: (a) 40 rehabilitation workers, (b) 30 hospital employees working in non-therapeutic roles who had a family member or a friend who was disabled, and (c) 40 hospital employees working in non-therapeutic roles who had no friends or family members who were disabled. The groups were comparable in sex, age, marital status, and level of education.

Using the Attitudes Toward Disabled Persons (ATDP) scale, Bell found that the following variables are not related to ATDP scores: age, sex, marital status, level of education or years in a hospital setting, or, for professional rehabilitation workers, years of professional experience. There was a significant difference between groups a and b, and between b and c. The highest scores, representing a "favorable" attitude toward physical disability or "acceptance" of the physically disabled, were obtained by those

who had family members or friends who were disabled. The hypothesis that rehabilitation workers would have higher scores than other hospital workers was not confirmed. Bell, on the basis of this study, suggests that rehabilitation workers, to be efficient and successful, must view the disabled person as somewhat different from the normal individual.

The attitudes of educational, medical, psychological, and social work personnel working with children and the attitudes of students planning to work with children in these professions were examined by Warren and Turner (1966). The study focused on the relationship between Familiarity with an exceptionality, Preference for working with persons having an exceptionality and the amount of Educational emphasis currently being put on the various kinds of exceptionality in training in the respondents' professional field. Seven categories of exceptionality to which the subjects responded were gifted, anti-social, brain-injured, hearing handicapped, mildly retarded, moderately to severely retarded, and sight handicapped.

Warren and Turner (1966) analyzed the data by ranking of preferences and by computing rank-order correlations between Preference (P), Familiarity (F), and Educational Emphasis (E). Differences in attitudes between groups were not computed. For the total sample (N=403), the academically talented (gifted) were most preferred and the

moderately to severely retarded were least preferred. Preference for the mildly retarded fell about midway in rank. Rank order correlations (P-F, P-E, E-F) for the total sample are significant at the .01 level. The data indicates that the less a person knows about an exceptionality, the lower he ranks it, and the more familiar he is with an exceptionality the more he prefers to work within that area of exceptionality. The authors suggest that social desirability is a factor to be considered since respondents having a family member in one of the areas of exceptionality rank that exceptionality highest in Preference.

Haring, Stern, and Cruickshank (1958) found that workshop attempts to modify teacher attitudes (both verbal and behavioral) toward disabled children were more effective when teachers had regular contact with disabled children. For attitudes toward a subordinate group, they suggest a possible interaction between amount of information available and amount of contact, provided, however, the 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....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 (Haring et al., 1958, pp. 130-131).



Roether (1959) found that both social contact and the availability of increased factual information lead to increased acceptance and tolerance of disabled persons, confirming the research findings of Haring et al. (1958).

Cross-Cultural Studies

Wright (1960, pp. 253-256) sampled material drawn together by Maisel in an extensive survey of anthropological records. These records revealed wide discrepancies in the treatment of disabled persons, although negative attitudes were more frequent than positive attitudes.

Hanks and Hanks (1948), in a more systematic analysis of several non-occidental societies, attempted to determine relationships between structural and functional characteristics of the societies and their treatment of the physically handicapped. 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, and (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" (Hanks and Hanks, 1948, pp. 19-20).

Cultural uniformity and variability were investigated by Richardson, Goodman, Hastorf, and Dornbusch (1961) by asking children to rank pictures showing various kinds of physical disability. All samples were from the United States but included disabled and non-disabled subjects from various ethnic and social groups. They found "remarkable uniformity in the hierarchy of preferences which the children exhibited for pictures of children with and without various visible physical handicaps" (p. 246). Slight sex variations were also found. Girls tended to depreciate children having more "social" impairments and boys seemed more concerned about "functional" impairment. The picture of a child with no visible handicap was always ranked highest.

Goodman (1963) hypothesized that a person's negative value pattern, as noted by Richardson et al. (1961), was related to the absence of contact with disabled persons. These patterns were communicated by parents to children without any explicit pattern or awareness; a child's exposure to a value and his ability to learn the value were postulated as being significant in a child acquiring a social value. To test this hypothesis, persons who were judged to come from subcultures with different value orientations in relation to visible impairments were studied. The sample included children and adults of Jewish and Italian origins.



Results indicated that (a) adults showed the same preference pattern as the dominant children's pattern, (b) the Jewish children gave a higher ranking to both facially disfigured and obese than others, and (c) both retarded and disturbed children gave deviant patterns. The evidence suggests that cultural values pertaining to physical disability are related to cultural uniformity. People who deviate from the cultural norm in terms of value orientation might also be expected to deviate in their appraisal of the physically disabled.

Several research projects in rehabilitation are currently being conducted in Israel. Because of the composition of the population, most studies in Israel involve the sampling of several cultures. Although the nation was established eighteen years ago, a wide-spread cultural integration has not yet occurred. Out of a population of 2.5 million, 2.2 million are Jews with the balance being Arab and other minority groups. The Jewish population is composed of three general groups of people: the western group, the oriental group, and the Israel group or native born adults (Chigier, 1966). Rehabilitation research is supported by the International Division of the Vocational Rehabilitation Administration (U.S.A.). There are 29 research projects currently in progress, eight of which are concerned with handicapped children or adolescents. These studies are concerned with cultural factors in the

rehabilitation of children and adolescents having disabilities related to cerebral palsy, diabetes, mental retardation and hearing loss (Chigier, 1966; Chigier and Adler, 1966).

A study by Felty (1965) of attitudes toward physical disability in Costa Rica was a pilot study for a number of cross cultural investigations, including the present study, currently underway at Michigan State University (See footnote, page 6). The occupational interest groups and the hypotheses of all studies are essentially the same.

Using the Multiple Scalogram Analysis developed by Lingo, Felty found that seven items of the twenty item Attitudes Toward Disabled Persons minimally met the Guttman scale requirements. He also found that six of the ten "progressive attitudes toward education" items formed a scale, but that no suitable scales were formed from the "traditional attitudes toward education" items. When the intensity scores were plotted against content scores for these scales, the predicted U- or J-shaped curves were obtained. Felty noted however, 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 confirmed. It was also predicted that the rehabilitation

and special education group (SER) would have higher Attitudes Toward Disabled Persons scores than the other occupational groups. The SER group had higher scores than the executive and labor groups, but had lower scores than the education group.

For the attitude variables, Felty found significant differences between males and females. Males tended to be more traditional than females in their orientation toward education and placed more emphasis on subject matter and on discipline. Conversely, females were more inclined to accept progressive, child-centered ideas. Since the education group (including 32 males, and 61 females) was also high in progressivism and low in traditionalism, whether these differences are primarily an occupational characteristic or genuine sex differences need further investigation.

Concerning the lower income group (Laborers), a significant finding was that those respondents having a relatively low income and educational level had a high Independence value. Felty stated that this group consisted largely of males which may have biased the results, but he also noted that while this group was the most divergent of the sample, it was the most typical of the Costa Rican population as a whole.

Using a theoretical approach and instruments similar to those used by Felty (1965), Friesen (1966) compared the attitudes of two Latin American countries (Colombia and

Peru) with the attitudes of a United States sample. Thirteen specific hypotheses were tested; nine were confirmed or partially confirmed. The four hypotheses not confirmed will be noted below, together with some of his general findings.

The two hypotheses relating to scale and intensity analysis were not confirmed. Though a confirmation would serve to indicate similar outcomes toward the attitude object psychologically, Friesen indicates that "the complexity of attitude measurement" accounts for these hypotheses not being confirmed (Friesen, 1966, p. 221). A third hypothesis which was not confirmed states in essence that the more contact a person has with either education or with disabled persons, the higher his attitude intensity scores will be. Regardless of the content of his attitude, whether favorable or unfavorable, the intensity of feeling should be higher. The data did not show this to be true for the samples included in this particular study. Also, the statistical analysis did not confirm the hypothesis that persons working in special education and rehabilitation (SER) will have a higher mean score in progressive attitudes toward education than persons in other occupations. Although this hypothesis was not confirmed, the SER group had the highest scores on the progressive education scale and the lowest on the traditional education scale, the scores being in the predicted direction.



A finding of general interest, consistent with Felty's study, was that males were significantly lower than females on the Benevolence value scores. Also, the SER group was found to be characterized by an asset value orientation rather than a comparative value orientation in attitude toward physical disability itself. SER respondents scored significantly higher on Benevolence (asset value orientation) than on Leadership and Recognition (comparative value orientation). As postulated, the SER group had more favorable scores on the Attitudes Toward Disabled Persons scale than other groups in Columbia and Kansas (but not in Peru).

Types of Disability

Studies by Kvaraceus (1956), Force, (1956), Dickstein and Dripps, (1958), Haring et al., (1958), and Murphy, (1960) consider preferences for different disability groupings in various specific situations. Kvaraceus, Dickstein and Dripps, and Murphy studied preference for teaching particular groups by means of group rankings. In general, the gifted were most preferred while the mentally handicapped and maladjusted children were least preferred. Physically disabled children were ranked between these groups.

The studies of Force (1956) and Haring et al., (1958) suggested that children with cerebral palsy are considered the most difficult with whom to interact. In the Haring et al. (1958) study, respondents were considering the acceptability of children for regular school programs. Only

those children with mild hearing disorder and with leg crippling, if ambulatory by crutch or wheelchair, were considered educationally acceptable, although others were functionally capable of placement (pp. 40-41). This restriction limits the generalizability of the findings.

Whiteman and Luckoff (1962) were concerned with attitude structure and personal value orientations. Because of the theoretical foundation of the research, it has relevance to a study of attitudes toward physical disability. In respect to structure, which they apparently define as a pattern organization of beliefs and evaluations, they found that correlations are higher between disability groups on a single component (or handicap, such as blindness) than they are within a single disability group on two components or handicaps.

The relationship between components, even though within a given disability, is poor. Thus the correlation between items dealing with the evaluation of a physical handicap and the evaluation of physically handicapped people is .13 while the two items referring to blindness and blind people correlate .22. However, the relationship within components is appreciably better even though the responses are to different disabilities. Thus the two items referring to blindness and physical handicap and their effect on the most worthwhile experiences correlate .53 while the two items referring to the sorrowful characteristics of blind and physically handicapped people correlate .61. Similar considerations obtain when the components deal with pity towards blind people, or with readiness for interaction with them (Whiteman and Luckoff, pp. 154-155).



The Measurement of Attitudes

Attitude has been defined as a "delimited totality of behavior with respect to something" (Guttman, 1950, p. 51). Methods of measurement used in the present study will be presented in this section.

General Considerations

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 inter-correlated and which form separate subuniverses. An adequate attitude abstraction from this universe should include sampling from each of the possible subuniverses, 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 overtly behaves toward that persons, but the relationship cannot be assumed without empirical evidence.

Green (1954, pp. 335-336) makes three other salient statements 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. Third, 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 is used in respect to the attitude variables employed in this study.

Cross-National Research And Scale Analysis

Several authors have considered the hazards of meaning equivalence in cross-national studies (Jacobson and Schachter, 1954; Jacobson et al., 1960; Klineberg, 1950; Suchman, 1958, 1962, 1964; UNESCO, 1955, 1963). A primary problem in studies of this type is how to obtain comparable input stimuli, an aspect which may be subdivided into problems of translation, and into the availability of equivalent language terms and concepts (Jacobson et al., 1960, pp. 218-263). Concerning problems of input equivalence, Suchman (1958), in reporting methodological findings of the Cornell Cross-Cultural Methodology Project, distinguishes between "concept" equivalence and



"index" equivalence. He reported that it was not possible to compare specific questions and indices across cultures.

Technical problems such as language translation along with more subtle factors of the meaning of words, combined to make it extremely difficult to compare responses from different cultures with any degree of confidence that they were indeed equivalent. On the other hand, it was found that while specific indices might not be comparable, broader concepts were (Suchman, 1958, p. 197).

He suggested that scale analysis offered a "particularly promising method" of determining concept equivalence.

The problem of input equivalence of concepts in cross-national studies would appear to be an aspect of the general problem of question bias. Suchman (1950, Ch. 8) explores the measurement of intensity of feeling with which people hold to their attitudes or opinions as a way of surmounting differences in measurement results which are due mainly to nuances of differences in question wording ("bias"). Guttman (1954, p. 396), in referring to the application of this approach to the problem of bias by the Israel Institute of Applied Research, comments that "in Israel where we sometimes have to do the same study in twelve different languages, it is essential to have a technique which does not depend on question wording."

Scale Analysis

The following summary of scale analysis is not intended to be exhaustive, but merely to present a rationale and an outline of the approach used in the study. A basic

reference is Guttman (1950), but comprehensive discussions of other scaling methods are found in Green (1954), Edwards (1957), and Goode and Hatt (1952). Riley, Riley and Jackson (1954) present certain information on the technique not available elsewhere, and Riley (1963) and Waisanen (1960) present simplified techniques for introductory work with the method.

Scale analysis is a method for determining whether a set of items can be ordered along a single dimension. If a particular attitude universe is 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 concerning

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 a minimum of 10% error) 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%, 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 percent 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%, but when the errors occur in a random pattern.

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

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." 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.¹ These errors...do not group together like non-scale errors" (Suchman, 1950, pp. 160-161).

Scale and Intensity Analysis in
Relation to Cross-National Problem
Of Comparability of Responses

Once scaling has been established so that there is some indication of unidimensionality, there remains the question of how to divide the respondents on the basis of the favorable or unfavorable responses. Foa (1950) and Suchman (1950, pp. 214-215) have shown how question bias can be introduced through slight changes of question wording so

¹The "cutting point" refers to the point at which the "favorable" (or, "yes") responses to an item, can be divided with the least amount of error from the "unfavorable" (or, "no") responses to an item, when the respondents have been ordered on the basis of total score for all items in the scale.



that the response patterns of a set of questions may be altered considerably. What is needed is an objective zero (0) point, independent of the content of the item, which will separate the favorables from the unfavorables.

The method proposed is to ascertain for each item how intensely the respondent feels about the item. It has been shown experimentally (Foa, 1950, 1961; Guttman, 1947, 1950; Guttman and Foa, 1951; Guttman and Suchman, 1947; Suchman, 1950; Suchman and Guttman, 1947) that intensity will usually form a quasi-scale which, when plotted against the content dimension, will reveal the point of lowest intensity of response on the content scale. This point has been empirically established as a point of indifference for the item content. Attitudes become favorable on one side of the point and unfavorable on the other side of the point. It then becomes possible, for any particular group, to determine about what percent of the respondents are actually favorable, neutral, or unfavorable, as defined by an objective and invariant referent point.

This concept is of great potential significance for cross-national research, since it offers an objective technique for comparing persons in different cultures, regardless of subtle meaning changes resulting from translation, providing that the item content is scalable within each of the cultures being compared. Both the point of division, and the shape of the intensity curve are

of interest. The shape of the curve may indicate whether people are generally apathetic about the issue being considered or are sharply divided into opposing factions. These potential benefits of scale and intensity analysis recommended their use for the present study.

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

The additional studies, (with their projected completion dates) examine: attitudes of various subgroups of special educators (Mader, 1967); comparison of special versus regular educators (Green, 1967); relationship between attitudes, values, contact and theological orientations (Dean, 1967); attitudes of college counselors (Palmerton, 1967); ministers attitudes toward mental retardation (Heater, 1967); attitudes toward general disability versus blindness (Dickie, 1967); attitudes toward general disability versus deafness (Weir, 1968); and factors influencing attitudes toward integration of handicapped children in regular classes (Proctor, 1967); and attitudes of various groups in Belgium, Denmark, England, France, The Netherlands, and Yugoslavia (Kreider, 1967) (see Addendum to References, p. 208).



CHAPTER III

METHODOLOGY AND PROCEDURES

The purpose of this study was to investigate technical, methodological and theoretical problems relating to the cross-cultural investigation of attitudes toward education and toward physical disability. An attempt was made to employ a set of instruments to elicit attitudes toward education and toward physical disability (Appendix B-1 and B-4).

Rationale for Selecting Sample from Japan

Several factors were considered in choosing Japan for the present study, including the availability of sufficient rehabilitation and other types of workers, ease of access to the country, and the availability of persons within the country interested in giving professional and technical assistance. The selection of Japan also provided a population differing in language, culture, and values from the United States, thus providing a more rigorous test of the assumptions underlying the instruments. It also met the needs of a larger study currently being conducted by John E. Jordan, Michigan State University, which includes samples from the United States, Latin America, Europe, and Asia.

In Japan, there are active and extensive programs of special education and rehabilitation. Some programs are under private or local support and control while others are under national or prefectural jurisdiction. The city of Tokyo provided an easily accessible population from which the research sample could be readily selected for each of the specified groups. Also, several professional workers in rehabilitation in Tokyo were contacted and they became vitally interested in the nature of the research and offered their assistance to the project by translating and administering the instruments. They subsequently reduced the multi-page questionnaire responses to a single page of data which greatly reduced the time required for preparing the data for card punching.

General Description of Japan

Before describing the research sample, a brief survey of Japan will be given. This section will include a description of geography, population, economics, politics, general education, and special education and rehabilitation services.

Geography

Japan consists of four main islands - Hokkaido, Honshu, Shikoku, and Kyushu - and 3,000 smaller islands, which lie in the temperate zone. The total land area is approximately the size of the state of California, but due to many



mountains, only about 17% of the land is arable. This 2,000 mile long chain of islands extends over a long range of latitude and variations of climate bearing a close resemblance to the eastern coast of the United States. However, due to its location on the Pacific Ocean, it has higher humidity and a greater rainfall than is usually found in continental areas. Her volcanic mountains are a source of many gushing hot springs which figure so prominently in the Japanese way of life.

Being separated from her nearest neighbor, Korea, by over 100 miles of water, and also being separated from China by some 500 miles of open sea, Japan has tended to be an isolated nation by nature's decree. After a period of exchange of ideas with other nations, she became isolated by her own choice. This isolation has helped Japan, however, to become ingenious in adopting ideas from other cultures, such as the Chinese originally, and more recently the Western, and modifying them to meet her own particular needs.

Population

Japan has a population of over 97 million, making it the fifth most populous nation in the world, with China, India, the U.S.S.R., and the United States having larger populations. For a 10 year period, beginning in 1950, the population increased by 9 million. The birth rate is decreasing, however, and the tendency is for the population

to become concentrated around the large metropolitan areas such as Tokyo, Osaka, Nagoya and Fukuoka.

As the population of Japan approaches 100 million, Tokyo has become the world's most populous city with over 10 million residents. A modern city in the international sense, it has luxury hotels, cultural and athletic attractions, express highways running through the heart of the city, a subway system, the world's only commercially operating monorail train, and a radio-television tower higher than the Paris Eiffel Tower.

Economics

The standard of living for Japan is the highest of all Asia and is equal to those of some European countries. Japan has changed from an agrarian economy to an industrial one with current production far surpassing pre-war levels. According to 1962 government statistics (Japan), the average urban family earns about \$210 a month and owns a television set, washing machine, refrigerator and other items considered luxury items in many countries. A labor shortage is reported for some industries and unemployment is at its lowest level in Japanese history (Taguchi, 1965a).

In 1961, the Japanese government established a 10 year income doubling program in which industrial productivity is projected to increase 5.8% annually. The actual increase in industrial productivity for 1961-63 averaged 7%, while

agricultural productivity increased an average of 2.9%. During the same period, agricultural population decreased by 2.9%. Although agriculture shows sound growth, it should be noted that the gap in productivity and income between agriculture and other industries continues to widen. The agricultural population in 1963 was 30.2% of the entire population (Japan Economic Yearbook - 1964).

It is estimated that by 1970, industrial production will be three times that of 1960. Leading industries include heavy industry, chemicals, and textiles. Japan is the world's largest shipbuilder, and is noted for its production for export of cars and trucks, railway trains, cameras, radios and electronic equipment.

Politics

Japan adopted a new constitution which was put into effect on May 3, 1947. Two fundamental principles of the constitution which continue in effect in both principle and practice are the idea of democracy and the desire for peace. There are three branches of the government: legislative, executive, and judicial. The legislative powers reside in the National Diet consisting of two houses, with the members being elected for a term of four or six years with the provision that the House of Representatives may be dissolved before the end of the four year period. The executive powers belong to the Cabinet which includes a



prime minister, designated by the Diet, and ministers appointed by the prime minister and approved by the Emperor. The judicial power is invested in the Supreme Court and courts of lower rank. According to Reischauer (1952, p. 229), "the most important single reform of the occupation was the revision of the Constitution and of its supporting legislation." The Constitution defines the position of the Emperor as "the symbol of the State and of the unity of the people, deriving his position from the will of the people with whom resides sovereign power." Previous to this, during the eras of the last two emperors, the monarchy had been slowly evolving into a constitutional symbol after the British pattern, and the new constitution brought the official document into line with practice (Reischauer, 1952, p. 231).

As a member of the United Nations Organization (admitted in 1956), Japan is providing leadership in several international organizations. She is also providing technical and financial assistance to developing countries. Through emigration of Japanese workers, primarily to South America, industrial and agricultural skills are being made available to other nations.

Education

In 1868, two centuries of self-imposed isolation came to an end in Japan. In 1872 the government adopted as a

national policy, a western system of education as a means of attaining status as an equal with other nations where the industrial revolution had already been initiated. Historically, the Japanese have favored education as a means of attaining and maintaining high status position. On the basis of criteria developed by Almond and Coleman (1960), and by the Hakone Conference on Modernization of Japan which was conducted in 1960, Japan can be described as a developed, modernized nation (Hall, 1965). She is especially "modern" in education.

From 1890 until the close of World War II, one of the central features of the schools was the inculcation of loyalty and morality, especially in reference to parents and the Emperor. The instrument by which this was accomplished was through Shushin (Morals) which was a mandatory course (1 hour/week for elementary and secondary schools) and whose contents were prescribed by the national government. Through Shushin, filial piety and loyalty to the Emperor were drilled into the students (Passin, 1965).

Special note might be made of Japan's literacy rate which is reputed to be the highest in the world. In 1960, .5% of the population received no education, 63.9% completed elementary school (6 grades), 30.1% completed secondary school, and 5.5% completed higher education. This data is based on persons of "productive age" 15-59. (Education in Japan, 1964, pp. 30-31). This noteworthy

achievement is made possible through the expenditure of 5.3% of the national budget for education. If only the children of compulsory school age are considered, 99.8% of all children are enrolled in school. In 1960, 23.4 million persons were enrolled in educational institutions extending from kindergarten through university levels (Cramer and Browne, 1965, pp. 511-512).

Since the constitution of Japan guarantees "an equal education correspondent to their ability" facilities and services are being continuously upgraded. Japan is second only to the United States in ratio of colleges and universities to population. In 1960, there were 760 thousand students enrolled in colleges and universities.

The present status of education in Japan may be summarized as follows:

There is no doubt that this attempt to plant democratic and liberal educational ideas in a country formerly hostile to them (by the U.S. occupation forces) is one of the most interesting and significant experiments in modern times. A generation may have to pass before the real results emerge, but at the present time there appears to be no sign of a departure from the principle expressed in the opening paragraph of the Fundamental Law of Education promulgated in 1947: "having established the Constitution of Japan, we have shown our resolution to contribute to the peace of the world and the welfare of humanity by building a democratic and cultural State. The realization of this ideal shall rest fundamentally on the power of education" (Cramer and Browne, 1965, p. 530).



Special Education and Rehabilitation Services

Japan has had a strong interest in providing special education for various categories of exceptional children. Her rehabilitation facilities have been described as being "very highly developed" due to comprehensive legal provision for such services, with the primary laws dating from 1946, 1947, 1949, and 1950. This emphasis on special education and rehabilitation has resulted in a very low percentage of handicapped persons receiving rehabilitation services remaining unemployed (Taylor, 1960, pp. 33, 34).

National surveys regarding the handicapped are conducted by the Ministry of Welfare every 5 years to aid in administering the various programs of rehabilitation. According to the 1960 survey findings which are the latest available, there are 950 thousand physically handicapped children and adults in Japan, or about 1% of the population. Physical handicaps are categorized as visual, auditory, vocal and speech, motor nerve, and functional disabilities of limbs.

The distribution of ages of the physically handicapped is as follows:

<u>Age</u>	<u>Percent of total</u>
Under 15	9.9%
15 - 17	2.8
18 - 19	2.2
20 - 29	9.6
30 - 39	14.2
40 - 49	16.6
50 - 59	16.4
60 - 69	15.1
Over 70	13.2
Total	<u>100.0%</u>

Of the total number of physically handicapped persons, 12.7% are children, and 87.3% are adults (over 18 years of age). Males comprise 61% and females 39% of disabled population. Approximately 50 thousand persons are considered to be multiple handicapped persons.

Among the common causes of physical disability are diseases, congenital defects, industrial accidents, and accidents and diseases associated with war. Disease is the predominant cause of visual handicaps (52.8%). Congenital defects are common causes of auditory handicaps (36.1%). Accidents and diseases associated with war account for 6.4% of all disabled persons (60.9 thousand).

Japan has had a long history of providing services for the handicapped with the first institution a school for the blind, being established in 1878. Now, a wide range of services and institutions are available through the cooperation of private agencies and federal, prefecture (state), and local governments. Space will not permit a detailed description of services available (See Taguchi, 1965a).

There are an estimated 580,000 mentally retarded children and adults in Japan. Children under 18 years of age are served by 167 public and private institutions; adults are served by 40 residential institutions which have been built by the prefectures with the aid of federal subsidy. The needs are far greater than the facilities available at this time.

Handicapped children are classified in five groups: the blind, the deaf, the mentally retarded, the orthopedically handicapped, and the delicate child (physically weak). The Education Law of 1947 requires each of the 46 prefectures to establish special schools for the handicapped or to provide special classes within regular schools. In 1952, a Special Education Section was set up within the Ministry of Education. These two provisions at the national level have tended to insure similar practices in special education throughout Japan. According to Izutsu (1959), of a total of 18.5 million children of compulsory education age (6-15 years), 1.2 million or 6.4% were in need of some type of special education because of physical disability or mental retardation which made it impossible for them to attend regular schools. Of the 1.2 million handicapped children, 3% were attending schools providing special education.

Among the handicapped children, 41% of the blind, 71% of the deaf, and 2% of the mentally retarded are enrolled in special schools or classes. Also 4% of the orthopedically handicapped, and 3% of the delicate children were taking advantage of special education facilities (Izutsu, 1959).

Izutsu (1959), after an extensive survey of special education facilities currently available in Japan, notes both the strengths and weaknesses of these facilities. He



concludes that "surely the concern for the [handicapped] is directly related to the positive solution of economic and social problems arising from war and defeat....It will take many years to overcome all of the difficulties, more so, when each problem is interwoven with the country's religion, culture, economy and social patterns. The important thing is that a noble beginning has been made. The finishing touches are sure to be made" (p. 19).

Research Population

The research sample¹ consisted of 211 adult men and women employed in various occupations in Tokyo, Japan. Five distinct occupational groups were represented in the sample, as follows: the Special Education and Rehabilitation (SER) group, the Elementary and Secondary Education Teachers (E) group, the Manager/Executive (M) group, and the Laborer (both white and blue collar) (L) group. A fifth group, government officials and executives were placed in the M group for statistical analysis. There were 113 males and 98 females in the sample. The total sample of 211 had the following distribution:

SER	-	N = 50
E	-	N = 41
M	-	N = 84 (includes 50 government executives)
L	-	N = 36

Selection of Variables

The selection of variables (Appendix C-1) was dictated primarily by theoretical considerations already reviewed.

¹See Appendix C-7 for method of selection.



Also, well-established sociological tradition indicated the selection of certain demographic variables.

The theoretically dictated variables were mainly those suspected to be in some particular relationship to the criterion variable of attitudes toward education and toward physical disability. Other variables were included, however, which were intended to provide information in respect to the characteristics of two groups of respondents:

(a) education personnel, and (b) those who work with the handicapped. These variables are mobility, personalism, institutional satisfaction, religiosity, and change orientation. The fact that some of these variables were found to have a relationship to scores on the criterion measure was largely fortuitous to the design of the research. The major variables used in the study are discussed in this section.

Attitudes Toward Physical Disability

The items used in this scale were taken from the Attitudes Toward Disability Scale (Yuker, Block and Campbell, 1960). Adequate test-retest reliability scores were reported, and various construct validity measures which were collected from disabled employees of Abilities, Inc. of Alberton, 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.

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 B-4). 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. Agreement with those statements is interpreted as reflecting an unfavorable attitude.

Attitudes Toward Education

Modifications similar to those described above were made on the Attitudes Toward Education scale developed by

Kerlinger (Kerlinger, 1958, 1961; Kerlinger and Kaya, 1959). The scales were included for two reasons: first, they are short and easy to administer; second, there is a rationale for hypothesizing a relationship between progressive attitudes toward education and positive attitudes toward physical disability in Asian countries. The scales represent a factor analysis of a set of 40 items administered to 598 subjects of various backgrounds, but all apparently with 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. An examination of the items (Appendix B-1) suggests that some of them may be overly complex and difficult for many people. The complete instrument consists of 20 items, of which 10 are "progressive," and 10 are "traditional." As employed in this study, the progressive and traditional items were analyzed independently as two separate scales.

The Intensity Scales

Suchman (1950) suggests that intensity of attitudes may be ascertained by asking a question about intensity immediately following a 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...for content answers, 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: "Very strongly," "Fairly strongly," "Not very strongly," and "Not strongly at all."

Interpersonal Values

In selecting the Gordon (1960) Survey of Interpersonal Values (SIV), two factors were considered. First, an instrument was needed which would yield scores on items that seemed logically related to the values included in the hypotheses of this study, namely, those of "asset" orientation to others, and "comparative" orientation to others. Benevolence, one of the six sub-scales in the instrument, is described as: "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 that 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 "comparative" orientation toward others. Three of the SIV values, Recognition, Conformity, and Leadership appear to involve rankings of others on some kind of absolute scale, either of achievement (Recognition), social acceptability (Conformity), or power (Leadership). The Gordon manual defines Recognition as: "Being looked up to and admired, being considered important, attracting favorable notice, achieving recognition" (Gordon, 1960, p. 3). Conformity is defined as: "Doing what is socially correct, following regulations closely, doing what is accepted and proper, being a conformist" (Gordon, 1960, p. 3). Leadership is defined as: "Being in charge of other people, having authority over others, being in a position of leadership or power (Gordon, 1960, p. 3). On the basis of face validity, the Recognition and Leadership items were judged to be most representative of "comparative" values.

A second consideration for selecting the SIV was the validity of the scale in a different cultural application than the one for which it was designed. Translations in French and Japanese yielded scores consistent with expectations for known groups (Gordon, 1963, pp. 17-21). The forced-choice format of the instrument may be less



sensitive to subtle shifts in item meaning resulting from translation than a format in which each item is separately responded to as "agree" or "disagree," or on a Likert-type format. It is expected, however, that in the present study some estimate of validity may be obtained through confirmation of predictions about the values of known groups used in the study (predictive validity), and from expected relationships between other scores (concurrent validity).

Personal Contact Variables

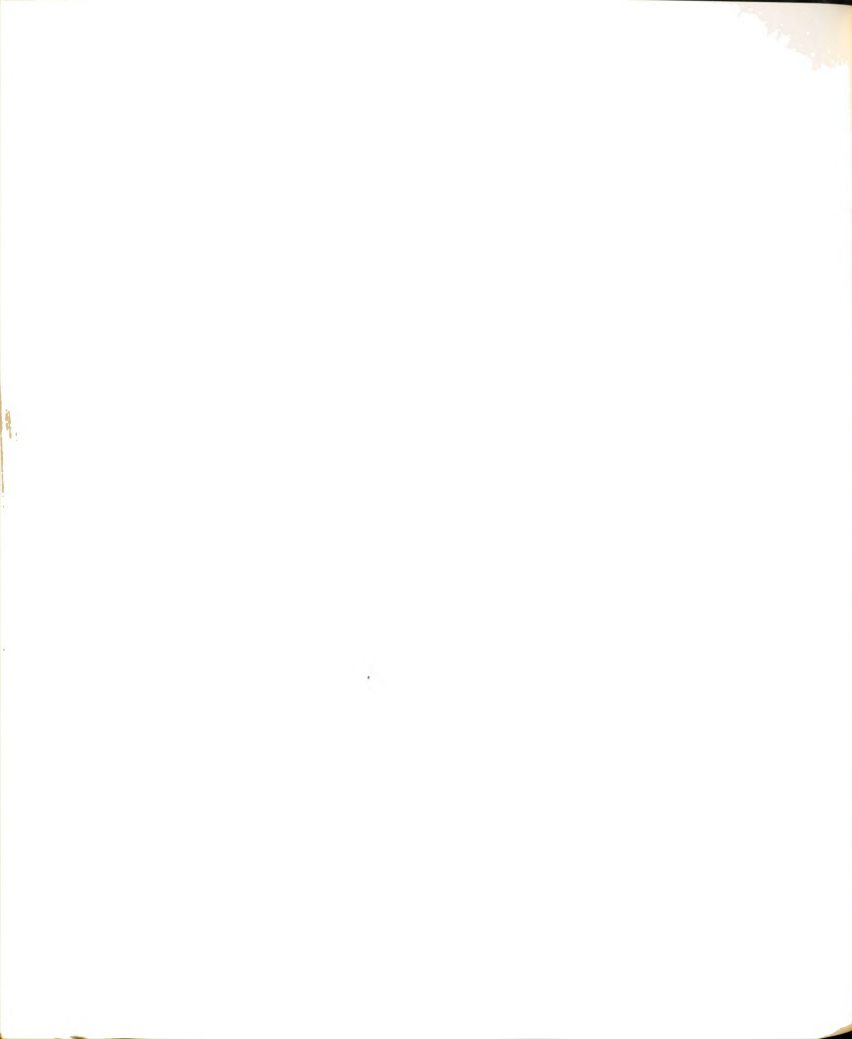
Two types of variables related to personal contact were represented by 15 items in the questionnaires. Four items were related to educational contact, nine to contacts with physically disabled persons, one to contact with mentally retarded persons, and one to contact with emotionally disturbed persons. Each item produced a score. Single-item scores are notoriously 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 SER would report a higher frequency of contact with disabled persons than would persons not working in the field of disability. This was the case in Costa Rica (Pelty, 1965), and might be considered an item validation.

Contact with Education These items (PQ 4-7)¹ requested respondents to indicate: (a) how much they had worked in schools or educational settings, (b) what percent 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 1-9) requested respondents to indicate: the kind of physical disability with which they had had the most contact or knew the most about, the type of relationship they had had with physically disabled persons such as family, friends, or others, and the approximate number of encounters they had had with physically disabled persons. Other questions were used to explore alternative opportunities, enjoyment of contact with handicapped persons, ease of avoidance of such contacts, gain from contact, and percent of income derived from working with handicapped persons.

Preferences for Personal Relationships This set of three items (PQ 21-23) 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

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



supposedly one of the distinguishing characteristics of the "Gemeinschaft," or traditional, orientation (Loomis, 1960, p. 61ff). "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 SER group, 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 inter-personal relationships.

Religiosity

Three questions (PQ 18, 19, 38) were oriented toward religion: religious preference, importance of religion to the respondent, and the degree of conformity to the rules and regulations of his religion. Religiosity also relates to the traditional-modern continuum, with higher scores expected among the lower income group, and among persons with low education.

Institutional Satisfaction

This set of nine questions (PQ 31A-31I) was adapted from Hyman (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 doing their particular job. It was postulated that the SER group would be less satisfied with institutions generally than other groups. Persons with high education in relation to income might also be expected to be less satisfied than others.

Change Orientation

This set of six questions (PQ 39-43, 47) was adapted from Programa Interamericano de Informacion Popular 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 were provided: strongly agree, slightly agree, slightly disagree, and strongly disagree. It was postulated that the SER group would have responses which suggested a greater flexibility and openness toward change which would, of course, challenge many existing cultural norms. On the other hand, the Managerial (M) or Labor (L) group¹ might be expected to respond in ways which suggest resistance to change.

¹The four sample groups are identified as follows:
SER - Special Education and Rehabilitation workers
E - Elementary and Secondary Teachers
M - Managers and executives (business and government)
L - Labor, white and blue collar workers



Demographic Variables

In the Personal Questionnaire respondents were asked to indicate their placement on several variables often found to be of significance in sociological analysis. These were level of education (26, 27), occupation (37), rental payments (30), age (8), sex (face sheet), marital status (12), number of children (13), number of siblings (16,17), home ownership (29), mobility (11, 12, 15), and rural-urban youth community (9). In the dissertation analysis, all of these variables will not be used because of time and space limitations but will be utilized more fully in the larger study being conducted by John E. Jordan, Michigan State University (See footnote, page 6).

Collection of Data

The instruments were administered in Japan under the supervision of Yasusada Takase (professor, Japan College of Social Work), Yasuo Tsujimura (professor, Ochanomizu Women's University), and Giichi Misawa (psychologist, National Rehabilitation Center of the Physically Handicapped).

The instruments were administered in the following order:

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

The English version of each of these questionnaires is included in Appendix B.



Statistical Procedures

Statistical procedures to be discussed in this section include descriptive statistics, scale and intensity analysis, mean differences analysis, and relational and/or predictive analyses.

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



Various techniques have been proposed to indicate item responses, such as the use of specially constructed boards (Suchman, 1950, Ch. 4). A technique employing only a typewriter was suggested by Waisanen (1960) and is appealing in virtue of its simplicity. While the Waisanen technique is very helpful, the "CUT" Computer Program, developed by Hafterson (1964) at Michigan State University, is more efficient in terms of time and errors. The program determines each possible cutting point as well as the number of errors involved in each cut. The dichotomized items are then scaled by the Multiple Scalogram Analysis program in use with the CDC 3600 Computer at Michigan State University (Lingoes, 1963; Hafterson, 1964).

A procedure for combining the content and intensity scales is described by Suchman (1950, Ch. 7). A matrix of scores is formed by entering the total intensity scores on the vertical axis and the total content scores on the horizontal axis. Respondents are tabulated in the resulting matrix on the basis of the two total scores received for each respondent. For each respondent, one in content and one in intensity. For each respondent rank, a median intensity score is computed. The relationship of intensity on content is formed by these median scores. The lowest point of the curve represents the psychological 0 point which divides favorable attitudes from unfavorable attitudes (Suchman, 1950, pp. 220-223).



Mean Differences Analysis

For convenience of computer programming, the F statistic was used for all testing of mean differences, though differences between two means are usually tested by the t statistic. The results are the same for both methods (Edwards, 1960, p. 146). If an F between two means is significant, inspection of the size of the two means will indicate which one is larger and thus the main contributor to the differences reflected in the F. Since a significant F merely shows that the variance projected in the hypothesis is greater than would be expected by chance, the specific relationship between the dependent variable and the variable represented by the levels or groups must be investigated. Duncan's New Multiple Range Test (Edwards, 1960, p. 136ff), as extended for unequal replications by Kramer (1963), will be used to investigate the extent to which a particular sub-group mean contributes to the total variance represented by the F test. Using this method, the group means can be ranked from high to low. Subsequent to this, the "difference" between successive pairs of means can be tested to ascertain which one(s) are statistically significant at a stated level of confidence.

The UNEQ1 routine (Ruble, Paulson and Rafter, 1966) was used to calculate the one-way analysis of variance statistics. The program is designed to handle unequal frequencies

occurring in the various categories. In addition to the analysis of variance tables, the frequency, sums, means, standard deviations, sums of squares, and sums of squared deviations of the mean were included for each category. The approximate significance probability of the F statistic is also included in the computer print off. This convenient figure enabled the researcher to know at a glance if the was significant without referring to a table. For example, if the number printed out was .05, the level of confidence, with appropriate degrees of freedom, would be .05 or less. However, if .00 was printed out, the level of confidence was to be considered to be .005 or less.

UNEQ1 also contains provision for designating one or more dependent variables as missing for an 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 et al., 1966). Since the samples were not equal in size or sex ratio within groups, an "adjusted mean" was computed on which to base all F tests. The "adjusted means" equalizes



accounts for both the variance in the size of the group
 les and the unequal sex distribution. The F test for
 group comparison is the usual one while the F test used
 test for differences between the adjusted means is equal
 two-sided t test while also fully accounting for the
 r experimental factors. This procedure for testing
 significance among multiple means is approximately equal
 Duncan's New Multiple Range Test (Edwards, 1950; Kramer,
 , pp. 307-310) when three or less treatment means are
 g tested. The procedure is somewhat more liberal than
 Duncan's test when more than three means are included,
 increasing the likelihood of Type I error. The pro-
 ce also does not account for the non-independence
 g the pairs of treatment means.

tion and/or ictive Analysis

Partial and multiple correlation are outputs of the
 al multiple regression model used in the CDC 3600
 ram at Michigan State University (Ruble et al., 1966).
 benefit of the use of partial correlation is that a
 er of variables which are assumed to have some relation-
 to a criterion, or dependent variable, can be examined
 ltaneously. Often, when a series of Pearsonian product-
 nt r's are computed between a criterion and a set of
 ables considered to be predictors of the criterion,



curious conclusions may be obtained because the predictor variables are themselves inter-related, rather than directly predictive of the criterion.

In a partial correlation solution to the problem these relationships among the predictor variables are considered 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'." The multiple correlation program yielded the following statistics: the beta weights of all (i.e., those used) predictor variables, a test of significance for each beta weight, and the partial correlations between each predictor and the criterion.

In the CDC 3600 MDSTAT program (Ruble and Rafter, 1966), a great deal of data can be utilized in 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 (such as total, male, female) a number of statistics can be requested. Those used for each partitioning in this research program 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 the total raw scores from the handicapped persons scale as a criterion. The second set used the total raw scores on both the progressive and the traditional education scales. The third set used the scores from change orientation items. Since the computer program for multiple regression did not "handle missing data," persons with missing data were dropped from the analysis of that problem.

Major Research Hypotheses

Hypotheses Related to Scaling

-1: Each set of attitude items employed in the study (Appendix B-1,4) represents an underlying one-dimensional universe of content, so that Guttman scale analysis will yield a scale or quasi-scale of attitude items.¹

1. Attitudes Toward Disabled Persons items will yield a Guttman scale or quasi-scale
2. Traditional Attitudes Toward Education items will yield a Guttman scale or quasi-scale
3. Progressive Attitudes Toward Education items will yield a Guttman scale or quasi-scale

¹For this hypothesis, and all following hypotheses in which statistical tests of significance are included, the statement of the hypothesis is in the research form rather than the null form for purposes of clarity. It should be understood that in the statistical analyses it is the null form, either one or two-tailed, which will be tested.



1 Hypothesis Derivation: The utility of scaling for cross-national research has been discussed in Chapter 2. The basis for the assertion of the hypothesis in respect to each national sample and the attitude-object-group of physical disability, rests on the assumption that disabled persons represent a salient group in the particular nation so that people will hold opinions in respect to them, whether on a favorable-unfavorable, or a different-similar continuum. The basis for the assertion of the hypothesis in respect to the education items, rests on the original factor derivation of the "traditional" and "progressive" items by Kerlinger (1958, 1961), and on pre-test scaling of these items in Lansing, Michigan in March, 1964, in which "traditional" items were found to scale independently of "progressive" items among a sample of 97 students and job re-training workers.

-1 Instrumentation: The attitude scales, as modified for the present study, are found in Appendix B-1,4.

-2: For each attitude scale the plotting of intensity scores against content scores will yield a U-shaped or J-shaped curve.

1. For Attitudes Toward Disabled Persons items, the plotting will yield a U- or J-shaped curve
2. For Traditional Attitudes Toward Education items, the plotting will yield a U- or J-shaped curve.



3. For Progressive Attitudes Toward Education items, the plotting will yield a U- or J-shaped curve

Hypothesis Derivation: From empirical findings reported by Suchman (1950) and others that such a relationship may be expected and should serve to establish a 0 point dividing the favorably-disposed from the unfavorably-disposed respondents.

Instrumentation: Following each attitude item, a separate question referring to the intensity with which a respondent held the opinion expressed on the content state-
(Appendix B-1,4).

Hypotheses Related to
Contact Frequency, Intensity,
Attitude Scores

The more frequent the contact with disabled persons, higher will be the scores on the intensity statement of Attitude Toward Disabled Persons (ATDP) scale, regardless of whether attitude content is favorable or unfavorable.

Hypothesis Derivation: From considerations of Berg, Foa, and Guttman and Foa, to the effect that contact frequency is directly related to attitude intensity, regardless of content directions (see Ch. 2).

Instrumentation: Contact frequency, by a direct measure, i.e., PQ-HP, 4 (Appendix B-4); ATDP intensity



s obtained through independent intensity questions
 wing each attitude content statement (Appendix B-4).

The more frequent the contact with education, the
 r will be the scores on the intensity statements of the
 ger Attitudes Toward Education scale, regardless of
 r the attitude is traditional or progressive.

Hypothesis Derivation: Same as H-3a above.

Instrumentation: Contact frequency, by a direct
 on, i.e., PQ, 4 (Appendix B-1); education intensity
 obtained as in H-3a above (Appendix B-1).

High frequency of contact with disabled persons will
 favorable attitudes if high frequency is concurrent
) alternative rewarding opportunities, (b) enjoyment
 contact, and (c) ease of avoidance of contact.

Hypothesis Derivation: From considerations of Homans,
 rg and other studies in special education (see

Instrumentation: Attitudes toward disabled persons,
 tement attitude instrument developed by Yuker et al.,
 nd modified for the purposes of the present study
 k B-4). Contact variable by direct questions in
 : frequency by question 4, alternatives by
 9, enjoyment by question 8, and avoidance by



: High frequency of contact with education will lead to favorable attitudes if high frequency is concurrent with alternative rewarding opportunities, (b) enjoyment of contact, and (c) ease of avoidance of contact.

Hypothesis Derivation: Same as H-4a above.

Instrumentation: Attitudes toward education, by a stem instrument developed by Kerlinger (1959) and used for the purposes of the present study. Contact measured by direct questions in the PQ: frequency by question 4, enjoyment by question 6, and alternatives by question 7.

Issues Related to and Attitude Scores

Persons who score high in need for power and control over others will tend to score low in acceptance of dis-empowered persons.

Persons who score high in need for power and control over others will tend to score low in progressive attitudes toward education and high in traditional attitudes toward education.

5b Hypotheses Derivation: From considerations of the relationship between attitude and value, and of Rosenberg to the effect that the more the content of an attitude is instrumental to value



aintenance, 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 devalue progressive attitudes toward education since the latter usually implies changes in the status quo. Some empirical findings of this appears in the conclusions of Whiteman and Lockoff (1962) in respect to blindness, and Felty (1964).

H-5a, H-5b Instrumentation: Need for power and control measured by Leadership (L) scale of the Gordon Survey of Interpersonal Values (Appendix B-2); attitudes toward disabled persons, as in H-4a, and attitudes toward education as in H-4b.

H-6a: Persons who score high in need for recognition and achievement will tend to score low in acceptance of disabled persons.

H-6b: Persons who score high in need for recognition and achievement will tend to score low in progressive attitudes toward education and high in traditional attitudes toward education.

H-6a, H-6b Hypothesis Derivation: Same as H-5 above.



H-6b Instrumentation: Need for recognition and
 ment measured by the Recognition (R) scale of the
 Survey of Interpersonal Values (Appendix B-2);
 des toward disabled persons as in H-4a; attitudes
 education as in H-4b.

Persons who score high in need to help others, to be
 ous, will tend to score high in acceptance of disabled
 ns.

Persons who score high in need to help others, to be
 ous, will tend to score high in progressive attitudes
 rd education and low in traditional attitudes toward
 ation.

: Women will score higher than men in (a) the need to
 others, (b) positive attitudes toward the disabled,
 (c) progressive attitudes toward education.

a, H-7b, H-7c Hypotheses Derivation: Same as H-6 above,
 stated in terms of an asset-value orientation rather
 n a comparative-value orientation.

a, H-7b, H-7c Instrumentation: Need to be helpful and
 ous measured by the Benevolence (B) scale of the
 rdon Survey of Interpersonal Values (Appendix B-2);
 attitudes toward disabled persons as in H-4a; attitudes
 ward education as in H-4b.



Hypothesis Related to
Change Orientation and
Attitude Scores

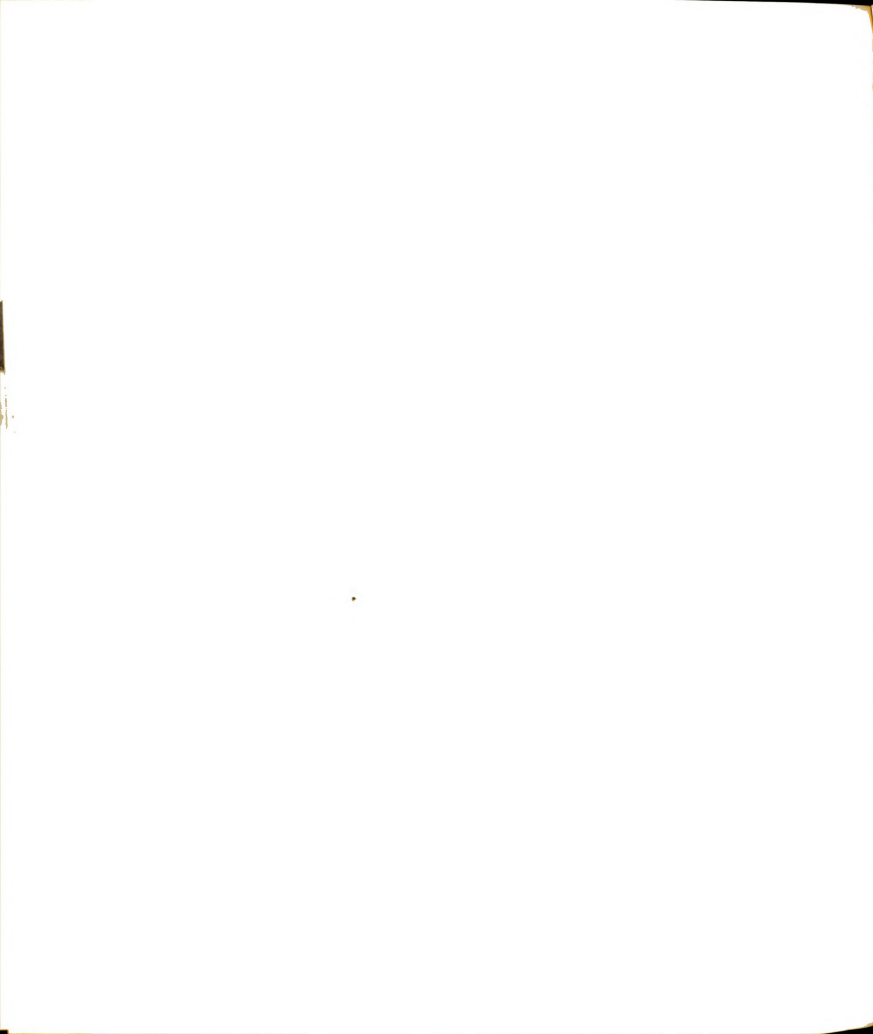
H-8: Persons who score high on change orientation will score high on positive attitudes toward handicapped persons and progressive education and score low on traditional attitudes toward education.

H-8 Hypothesis Derivation: Same as H-5 above and extended to connote that high scores on change orientation represents departure from the status quo and high relationship to new ideas (i.e., progressivism) and care for the handicapped (i.e., concern for individual differences).

H-8 Instrumentation: Change orientation measured by questions 39-43, and 47 in the PQ. These questions deal with change in health practices, child rearing, birth control, automation, political leadership, and self change. Attitudes toward disabled persons as in H-4a and toward education as in H-4b.

Hypotheses Related to Characteristics
of Those Working Directly With
Disabled Persons (SER)

H-9: The SER group will have a lower mean attitude toward disabled persons score than will persons in other occupational categories.



H-9 Hypothesis Derivation: From considerations of Zetterberg (1963) 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 in which to become involved. The association of (a) and (b) with occupational categories rests on the assumption that a measure of choice and job alternatives were present in the selection of employment; i.e., that SER employees chose this occupation in preference to others.

H-9 Instrumentation: Attitudes toward disabled persons measured as in H-4a.

H-10: The SER Group will have a higher mean score than will persons in other occupational categories in respect to the value of Benevolence and will have a lower mean score in respect to the values of Leadership and Recognition.

H-10 Hypothesis Derivation: Same as H-5 above and applied specifically to the SER group rather than to those who measure high on Benevolence (asset value) and low on Leadership (comparative value).

H-10 Instrumentation: Same as H-4 and H-6 for Leadership and Benevolence values, respectively.

11a: The SER group will have a higher mean score in progressive attitudes toward education than will persons in other occupational categories.

11b: The SER group will have a lower mean score in additional attitudes toward education than will persons in other occupational categories.

11a, H-11b Hypothesis Derivation: Same as H-5 and H-6 and applied specifically to the SER group rather than to those who measure high on progressive attitudes and low on additional attitudes toward education.

12: The SER group will have a higher mean score than all other occupational groups on the following change orientation measures: (a) health practices, (b) child rearing practices, (c) birth control practices, (d) auto-
ation, (e) political leadership, and (f) self change.

H-12 Hypothesis Derivation: Same as H-5a, H-5b, H-5c and extended to imply that persons who score high on progressive attitudes toward education will also score high on change orientation variables since both areas represent dissatisfaction with the status quo and emphasize the individual and empirical solutions to current problems.

H-12 Instrumentation: Change orientation measured by a series of questions in PQ on the areas stated in H-12
(Appendix B-3).

H-13: The SER group will have a higher mean score than other groups on the amount of contact with mentally retarded and emotionally disturbed persons.

H-13 Hypothesis Derivation: The SER group was chosen for known "prolonged contact" with the physically handicapped. The current hypothesis postulates a generalization effect in that increased contact with one area of disability implies increased contact with other areas of disability or exceptionality.

H-13 Instrumentation: Contact frequency with the physically handicapped measured as in H-3a and contact frequency with the mentally retarded and with the emotionally disturbed measured by questions 10 and 11 in PQ-HP.

Limitations of the Study

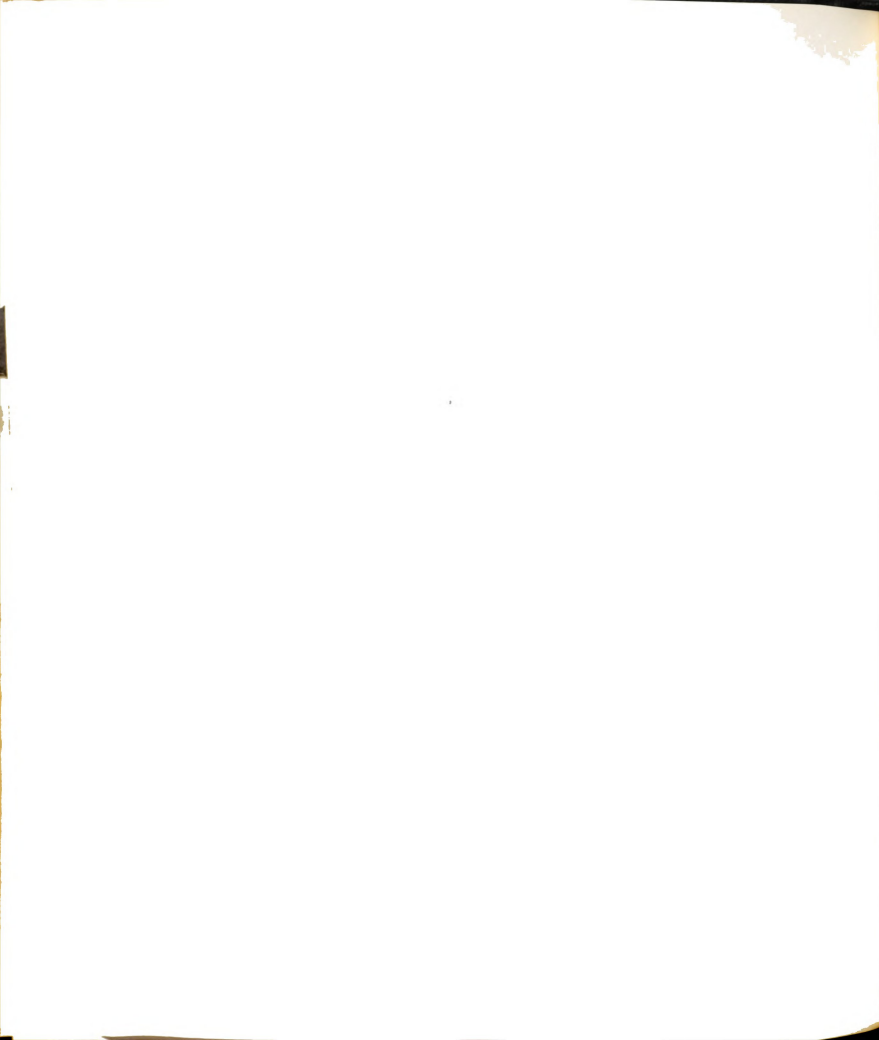
In cross-national research, concept-equivalence must be a major concern. Felty (1965) and Friesen (1966) discussed the necessity of giving adequate attention to this aspect of a study. The problem is to translate the instruments without losing the essential meaning of the original questionnaire. Exact, i.e., literal translation is required if the concept or idea contained in the original is preserved in the translation. For the Japanese, a solution was sought by having one of the three Japanese research colleagues translate the instruments.



ing this, the translation was reviewed by the other translators. The translators' competency to perform work includes the following qualifications: proficiency in the use of the English language, extensive study and work abroad, and current professional involvement in translation work.

Although every effort was made to obtain conceptual equivalence, the limitation of time and finances did not permit the administration of these instruments to a pre-test group before administration to the main sample. Although this study can be considered a continuing laboratory study for the larger study currently being done under the supervision of Dr. John E. Jordan, this limitation may not be as imposing as it might seem (see footnote on page 6).

Under limitations of the testing of hypotheses may be considered such concepts as the reliability and validity of the measuring instruments and the adequacy of the sampling. Two approaches to reliability and validity were attempted: the analysis of reliability was restricted to the items appearing in instruments that were analyzed for the properties. Reliability in this case becomes a function of the reproducibility of the scales. According to Guttman (1950, p. 278), for a reproducibility coefficient to acquire stability it is necessary to retest on a large sample of respondents, even though the pre-test may show a relatively high reproducibility coefficient.



due to the nature of the study, which will be replicated at a later date in a more comprehensive, in-depth study of selected countries, the usual sampling procedures were used. Other factors indicating the advisability of the "availability" approach was the pressure of time and finances. The data was secured from known occupational groups in Tokyo, as described in Chapter IV. Sampling places limitations on the generalizations that can statistically be inferred from the data. The generalizations are limited to the Tokyo sample, but may by inference be extended to include other large metropolitan areas in Japan. Attitudes are presumed to be different from isolated rural areas but not unlike those found in the Tokyo sample. The sample in this study was chosen to represent "ideal" groups and the major concern was with obtaining a large enough representation within each group for statistical analysis, rather than with population representation in a national sense. Although this would impose a severe limitation of a study purporting to be "nationally representative," it appears fairly adequate for an exploratory study such as the present one.



CHAPTER IV

ANALYSIS OF THE DATA

The analysis of data is presented in two major sections. Section 1 will include descriptive data on designated characteristics of the sample. Section 2 will be used primarily for reporting the results of hypotheses testing. Comparisons will be made of mean differences of various measures when respondents are compared according to (a) sex, (b) interest or occupational group, (c) contact with the profession, and (d) related indices. Correlational relations (zero-order, multiple, and partial) will be presented.

Section 1: Descriptive Data

Descriptive characteristics of the sample are presented in this section. The data are derived from three computer programs which provide a number of statistics useful for the demographic description. The computer programs used are Frequency Column Count (Clark, 1964) and MDSTAT (Ruble and Rafter, 1966).

The two major sub-divisions of the sample, sex and occupational/interest groups, are presented in Tables 1 and 2. Inspection of the tables reveals a major factor which complicates interpretation of the data: the sex-linked

acter of some of the occupational groups, such as the dominance of female teachers and male managers/executives. Those variables or hypotheses in which sex differences are significant, the sex composition of the interest group is an important factor in the analysis of the interest group differences. However, the use of two-way analysis of variance procedures enables the sex factor to be held constant in the analyses.

Table 1.--Distribution of respondents according to sex and interest group

	Interest Group ¹				Total
	SER	E	L	M	
	16	8	14	75	113
e	34	33	22	9	98
	50	41	36	84	211

SER = Spec. Educ. Rehab.

L = Labor

E = Education

M = Manager/Executive

Table 2 indicates that of the total M group, 50 respondents were government executives. Because of their administrative responsibilities, business and government executive level personnel were grouped together for purposes of analysis.



2.--Occupational composition of total sample by sex and interest group

Description of Occupation	Frequency of occupations by groups ¹						Total
	SER	E	M	L	Ma	Fe	
09, SER)							
Teachers, elem and sec	49				15	34	49
School special services	1				1		1
19, Educators other than SER)							
Elementary teachers		19			5	14	19
Secondary teachers		22			3	19	22
39, Professional and Tech- nical)							
Lawyers, public account- ants			3		2	1	3
49, Business, Industry, and Government Executive)							
Government and public officials		50			42	8	50
Manufacturing executives		3			3		3
Non-manufacturing ex- ecutives		12			12		12
Retail trades		6			6		6
Executives (non- specified)		10			10		10
59, White Collar Workers)							
Clerical, office, book- keeper, etc.				29	8	21	29
Sales, wholesale and retail				1	1		1
Small shopkeeper or dealer				5	4	1	5
69, Blue Collar Workers)							
All foremen				1	1		1
Totals	50	41	84	36	113	98	211

R = Spec. Educ. Rehab., E = Education, M = Managerial/
Executive, L = Labor, Ma = Male, Fe = Female

Differences in Mean Education,
Income, and Age Scores Between
Interest, Male, and Female Groups

Amount of education, income, and age of respondents are presented in Tables 3 and 5 according to sex and interest group. The Duncan's New Multiple Range Test is used to analyze the variance between three or more means when the F-test indicates a significant difference between means. Chapter III for a discussion of Duncan's New Multiple Range Test. Table 4 contains the Duncan's Means analyses of education scores as given in Table 3. Throughout the report, when there is a significant difference between two groups, the Duncan's New Multiple Range Test is applied to the means using the formula shown in Table 4. The means which are significantly different will be indicated within each table (e.g. Table 3) after the caption "Duncan's Test Results."

The raw data for education and income were coded before statistical analysis. The code for amount of education is given in Table 6. The code for income is contained in the Handbook - Special Instructions (Appendix C-4). For both education and income, each score represents an equal range of cases. In all cases, the data are ordinal; a higher score always represents a greater amount of education earned or a greater amount of income earned. The raw data for age was recorded with computations being made on the actual ages of the respondents.

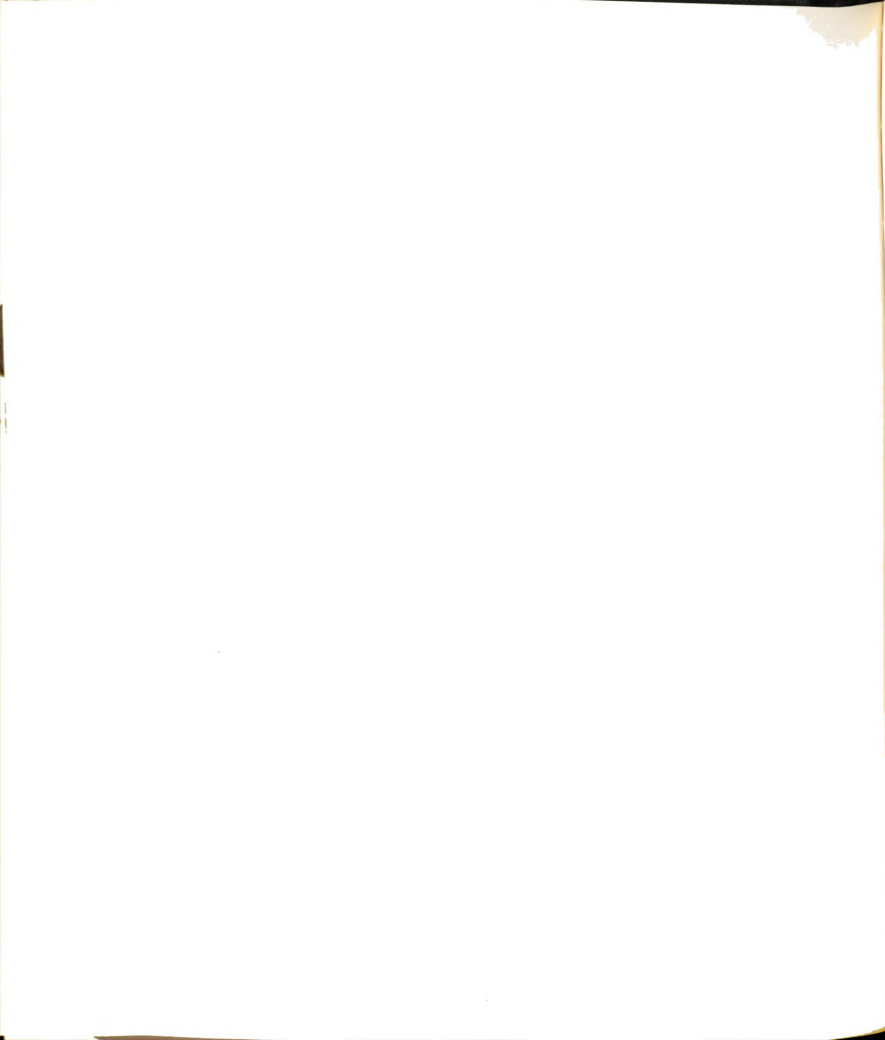


Table 3.--Comparison of mean differences, standard deviation, F statistics, and Duncan's Multiple Means Test results in respect to three demographic variables for four occupational categories

Table	Occupation ¹	N	Mean	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
Occupation	SER	50	6.78	1.63	17.48	.005
	E	41	7.49	0.95		
	M	24	3.04	2.39		
	L	7	5.43	3.10		
	TOTAL	122	6.20	2.38		
Untested Ranking of Means: E(7.49)>SER(6.78)>L(5.43) >M(3.04)						
Duncan's Test Results: E>M; E>L; E>P; R>M; R>L; L>M						

Home	SER	50	8.36	3.54	3.24	.02
	E	39	11.61	7.27		
	M	84	14.38	16.71		
	L	36	7.47	5.56		
	TOTAL	209	11.23	11.73		
Untested Ranking of Means: M(14.38)>E(11.61)>SER(8.36) >L(7.47)						
Duncan's Test Results: M>L; M>R;						

	SER	50	35.68	7.10	18.96	.005
	E	41	41.41	7.60		
	M	84	34.71	7.46		
	L	36	28.33	10.53		
	TOTAL	211	35.16	8.89		
Untested Ranking of Means: E(41.41)>SER(35.68)>M(34.71) >L(28.33)						
Duncan's Test Results: E>M; E>L; E>R; R>L; M>L						

ER = Spec. Educ. Rehab.

L = Labor

E = Education

M = Managers

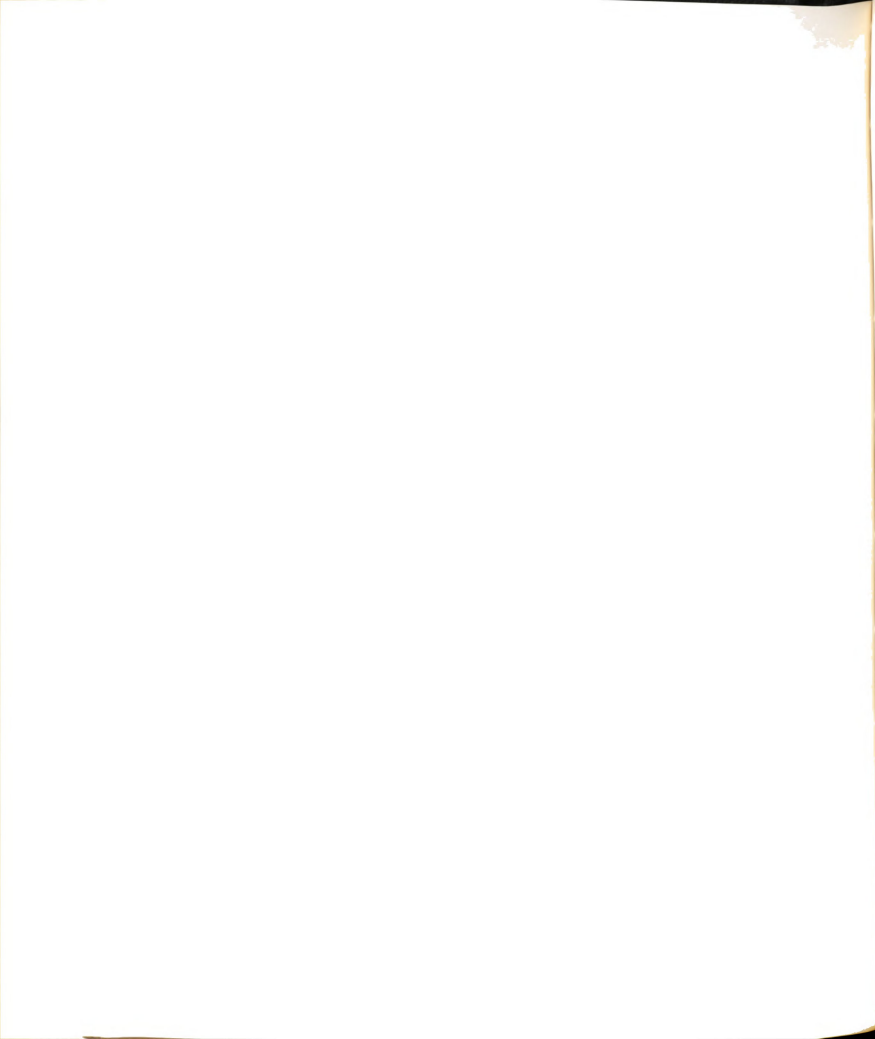


TABLE 4.--Duncan's New Multiple Range Test applied to means of education scores for four occupational categories

Range of Mean (p)	d.f. 121		
Studentized ranges	2.80	2.95	3.05
for 5% test (Z_p) ¹			
$[R' = (s)(z_p, df=121)]^2$	2.44	2.57	2.65

Mean differences ³			
- \bar{X}_M (p=4)			17.35*
- \bar{X}_L (p=3)		7.11*	
- \bar{X}_M (p=3)		27.02	
- \bar{X}_R (p=2)	4.76*		
- \bar{X}_L (p=2)	4.72*		
- \bar{X}_M (p=2)	6.70*		

Level of confidence used on all Duncan's Multiple Range tests: $P < .05$.

taken from Edwards (1960, p. 373).

the range of means (2, 3, and 4).

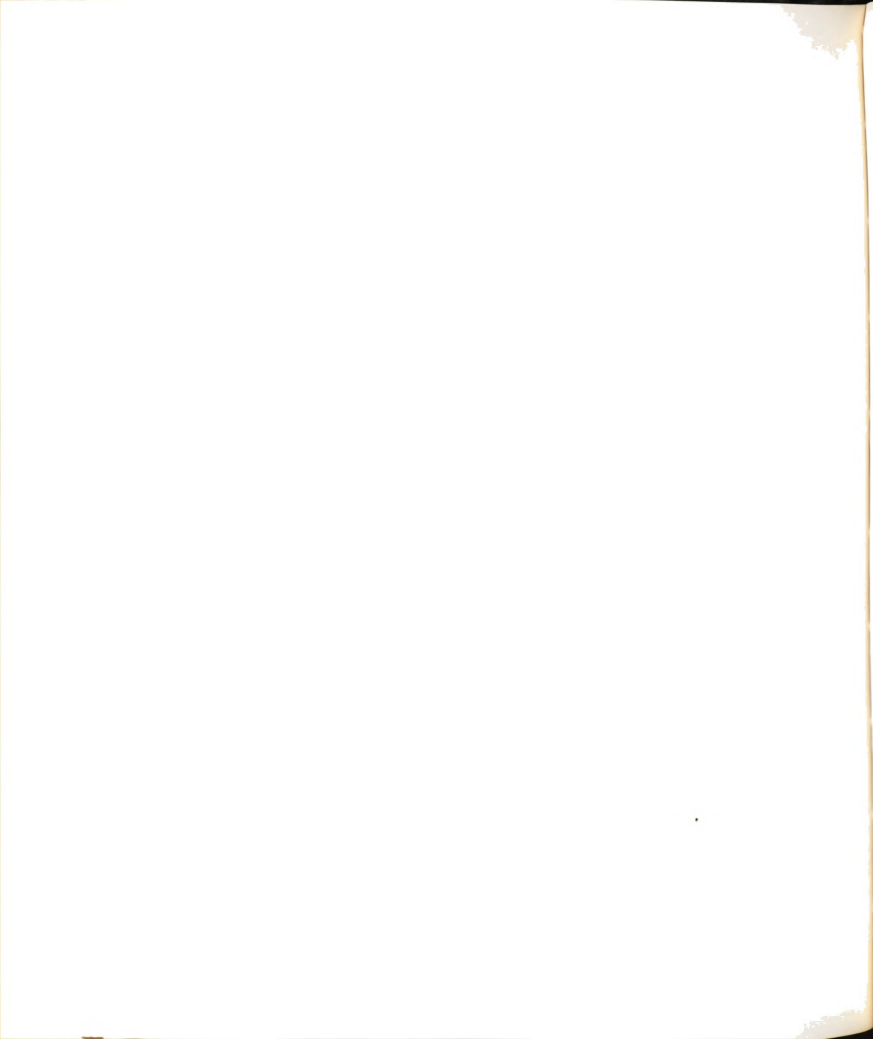
the square root of the error mean square of the analysis of variance of Table 3

$$s = \sqrt{0.75} = 0.87$$

Mean differences of columns 2, 3 and 4 have been transformed into the equivalent of t-scores for multiple means. To be significant, the figure must exceed the R'_p value of same column. The formula given by Kramer (1956) is:

$$(\bar{X}_y - \bar{X}_z) \sqrt{\frac{2n_y n_z}{n_y + n_z}} \geq z_p, \text{ error d.f. of A.of V. } (=R'_p)$$

The subscript R is used here to designate the SER group.

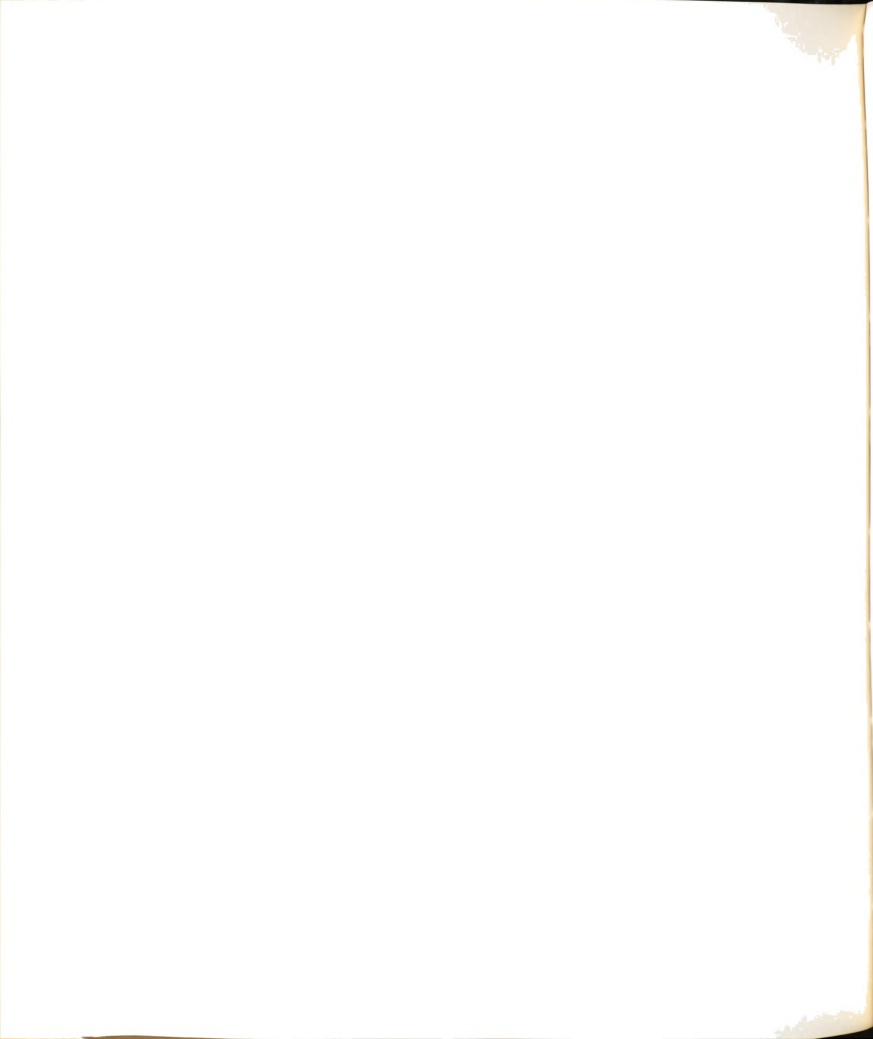


5.--Comparison of mean differences, standard deviations, and F statistics in respect to three demographic variables for males and females

Variable	N	Sex	Mean	Standard Deviation	F	Sig. of F
Education	52	Male	5.15	2.78	8.91	.005
	70	Female	6.99	1.65		
	122	Total	6.20	2.38		
Income	113	Male	12.65	14.75	3.60	.07
	96	Female	9.57	6.31		
	209	Total	11.23	11.73		
Age	113	Male	35.42	8.65	.21	.65
	98	Female	34.86	9.19		
	211	Total	35.16	8.89		

6.--Interpretation of education scores in terms of actual educational attainment

Education Score	Interpretation	Range of Interval
Less than 4	years completed	0 - 3 inclusive
From 4 to 6	years completed	4 - 6 inclusive
From 7 to 9	years completed	7 - 9 inclusive
From 10 to 12	years completed	10 - 12 inclusive
Some college or university		13 - 15 inclusive
College or university degree		16 - -
Post-degree study		- - -
Advanced degree		- - -

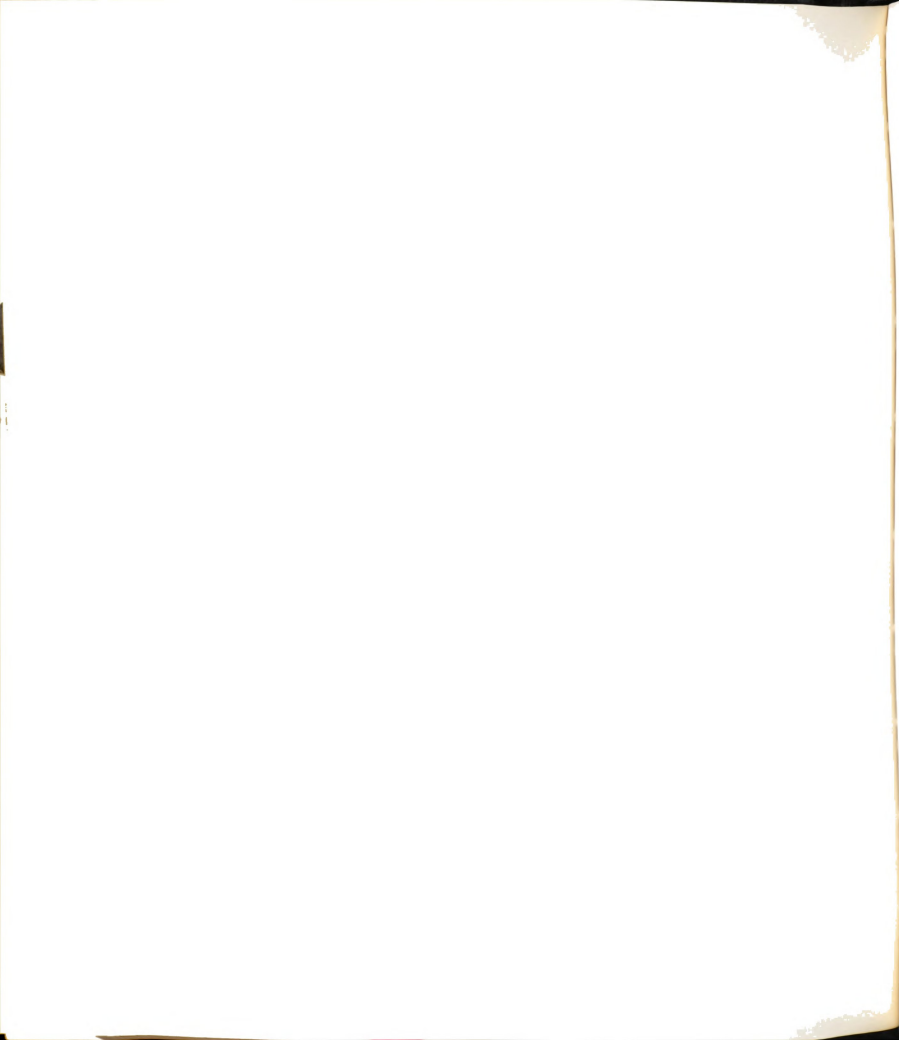


Summary of Descriptive
in Tables 3 - 6

The data presented must be interpreted cautiously, primarily because of the interaction between sex and education. Not only are the occupational categories unequal, but also the distribution of sex within the categories is unequal. For those variables where there is a significant difference related to sex, the sex composition of the interest group would be an important factor in the analysis of group differences. An effort will be made to determine which variable, sex or interest group, is more responsible in the determination of the level of significance.

In these tables, the actual significance levels of the test values are provided, rather than stating whether they are significant at a predetermined level, such as .01 or .05. Since the computer program provides this information, the actual significance values are presented so the reader can make his own judgment as to the importance of a particular test value.

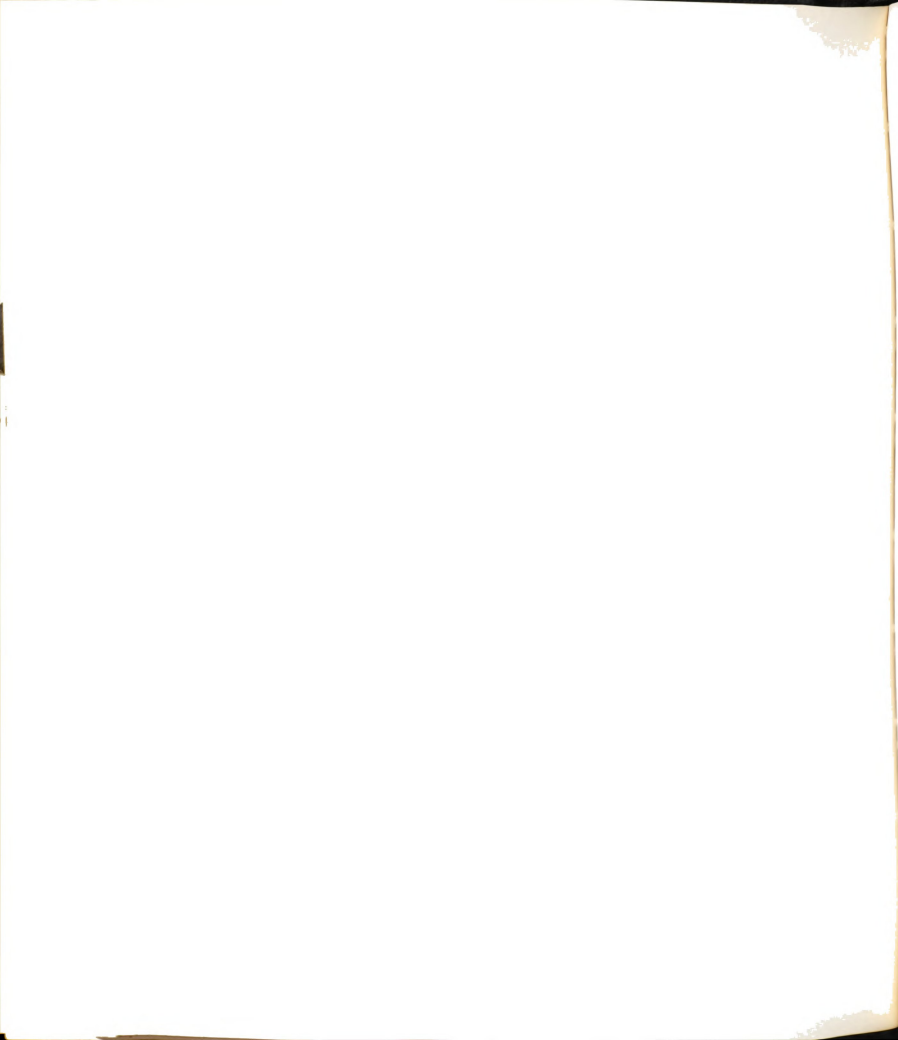
As indicated in Table 3, the E group has a significantly higher educational level than the M, L, and SER groups. The E group has a higher level of education than the M and L groups; interestingly, the L group has a higher level of education than the M group. However, the L group in Japan does not include manual, unskilled laborers but primarily



collar workers. Educators have a mean education at post-degree study level; Managers have a mean of 9 or less education, the lowest of the four groups. Managers have a significantly higher income than clerks and SER personnel, but not higher than Educators. The E group is older than the M, L, and SER groups. The M group is older than the L group; the L group is older than the SER group. Since the mean age for the total sample is 35 years, the average respondent was approximately 15 years old at the close of World War II when a period of rapid social change began. Theoretically, this factor could have implications for the kinds of attitudes expressed by the respondents.

Table 5 indicates a significant difference in education between the sexes with females having a higher level of education than males. The male mean level of education was some college training, but not college graduation whereas the mean level for females of 6.99 indicates that nearly all females had done post-degree study. The great variance between the sexes may be occupationally determined rather than sex determined since over two-thirds of the males in the sample are in the E and SER groups which have higher educational levels than the other groups in the sample.

The difference in income between the sexes is not statistically significant. However, of a mean score of



(females) indicates an income of 957,000 yen and a cf 12.65 indicates an income of 1,265,000 yen. In of actual purchasing power, there is a considerable rence between the two income levels. Age is not ificantly different between the sexes with the actual difference between males and females being less than year.

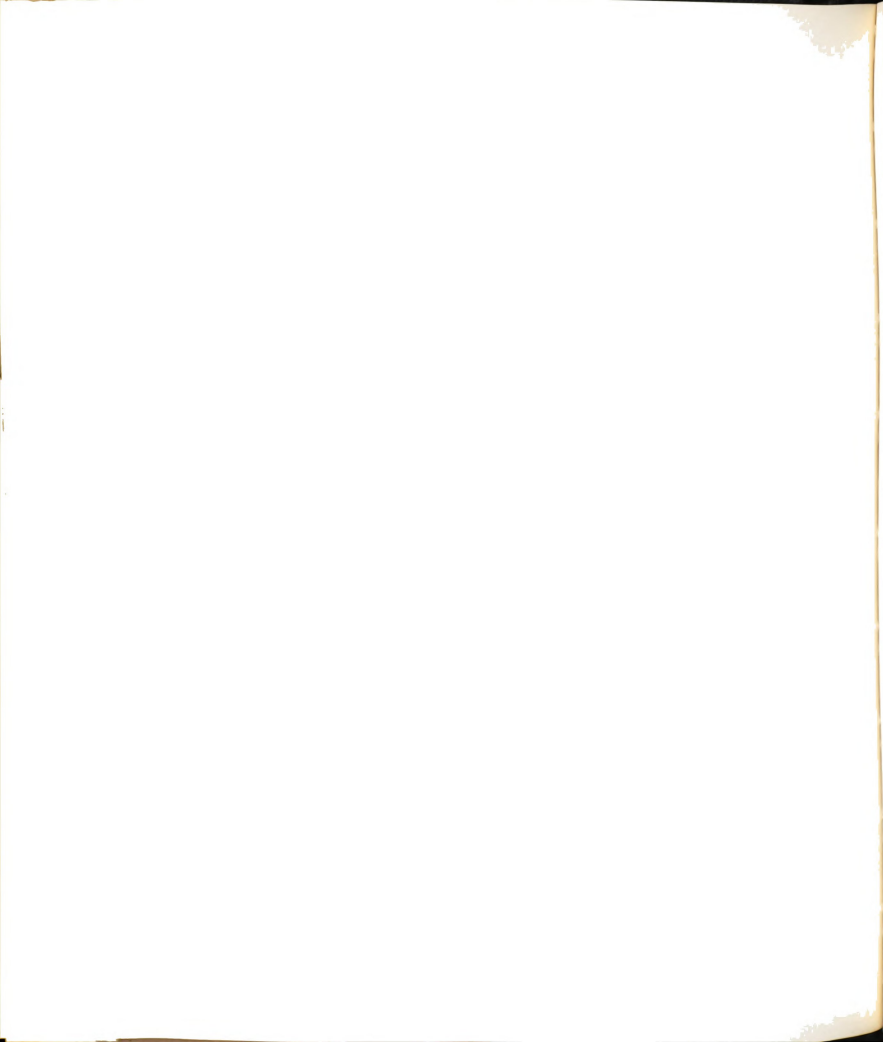
Section 2: Hypotheses Testing, Mean Differences, and Correlational Analyses

Hypotheses Related to Scaling

Each set of attitude items employed in the study
pendix B-1,4) represents an underlying one-dimensional
verse of content, so that Guttman scale analysis will
ld a scale or quasi-scale of attitude items.

: For each attitude scale the plotting of intensity
res against content scores will yield a U-shaped or
haped curve.

In attempting attitude scale analysis Felty (1965) had ly "marginal" success in forming attitude scales. In Friesen's (1966) study, none of the attitude items formed aningful unidimensional scales in keeping with the Guttman criteria. Friesen (1966, p. 213) suggests that e failure of the item to form a scale is related to two ctors, the complexity of attitudes and their multi-dimensional nature. He recommended the use of Lingoes'



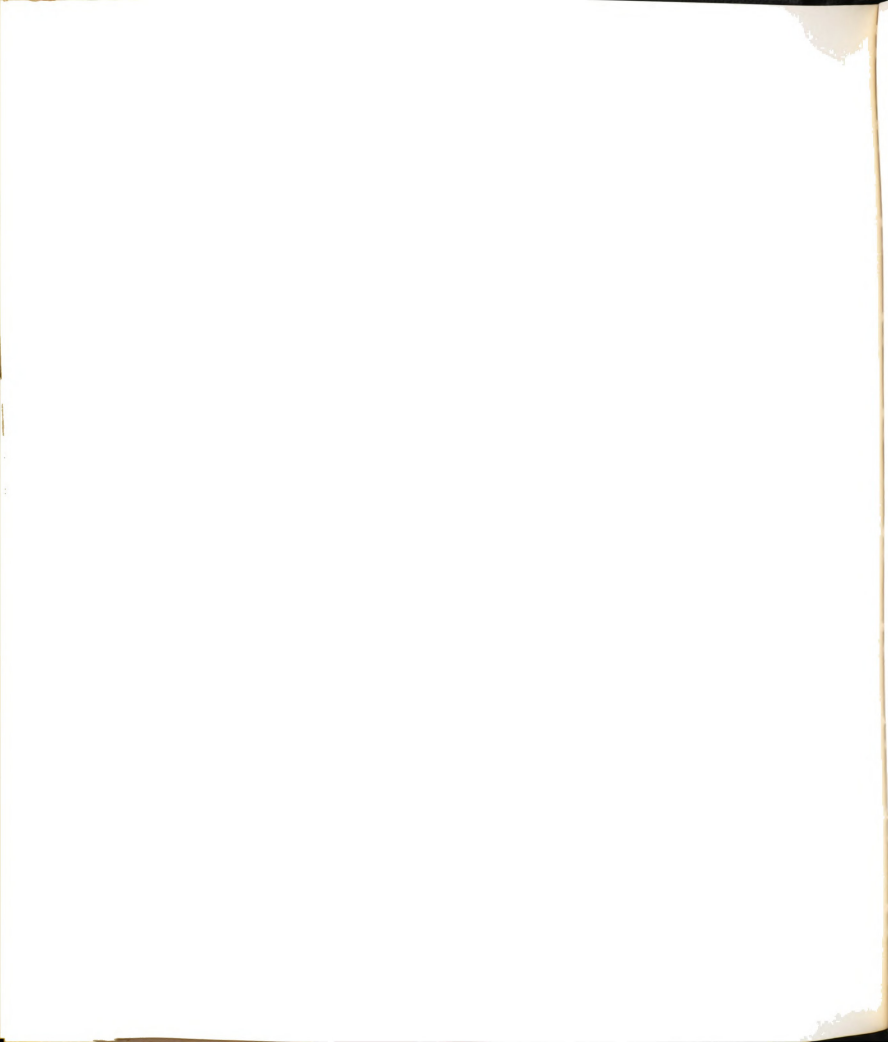
) Multidimensional Scalogram Analysis-I (MSA-I) for
 re research. Since the MSA-I is not yet operational at
 Michigan State University, computer center, the analyses
 ting to hypotheses 1 and 2 were not completed. However,
 e analyses will be computed for the Japan data for the
 epth study (see footnote, page 6).

In future research efforts, it is recommended that
 e items be analyzed by Lingoes' (1965) Multidimensional
 logram Analysis-I. This program permits both multiple
 dimensional and multidimensional analysis. A brief
 cription of the MSA-I is given below.

Although computer techniques have been de-
 veloped for scalogram analysis (Schultz,
 1961) and for extended Guttman's (1944)
 pioneering and popular scaling method to the
 determination of multiple unidimensional
 scales (Lingoes, 1960, 1962, 1963a), neither
 method is adapted for analyzing n-chotomous
 data nor for directly revealing multi-
 dimensional interrelationships. The present
 program, G-L (MSA-I), is, however ideally
 suited for solving the general grouping
 problem of systematics, on the other hand
 based on a minimum number of assumptions.
 This program can handle quantitative and/
 or qualitative data, monotone and/or
 polytone items, with up to 20 categories,
 and permits one to test not only uni-
 dimensional hypothesis, but multidimensional
 ones as well (Lingoes, 1965).

Hypotheses Related to Contact Frequency, Intensity and Attitude Scores

-3a: The more frequent the contact with disabled persons,
the higher will be the scores on the intensity statement of



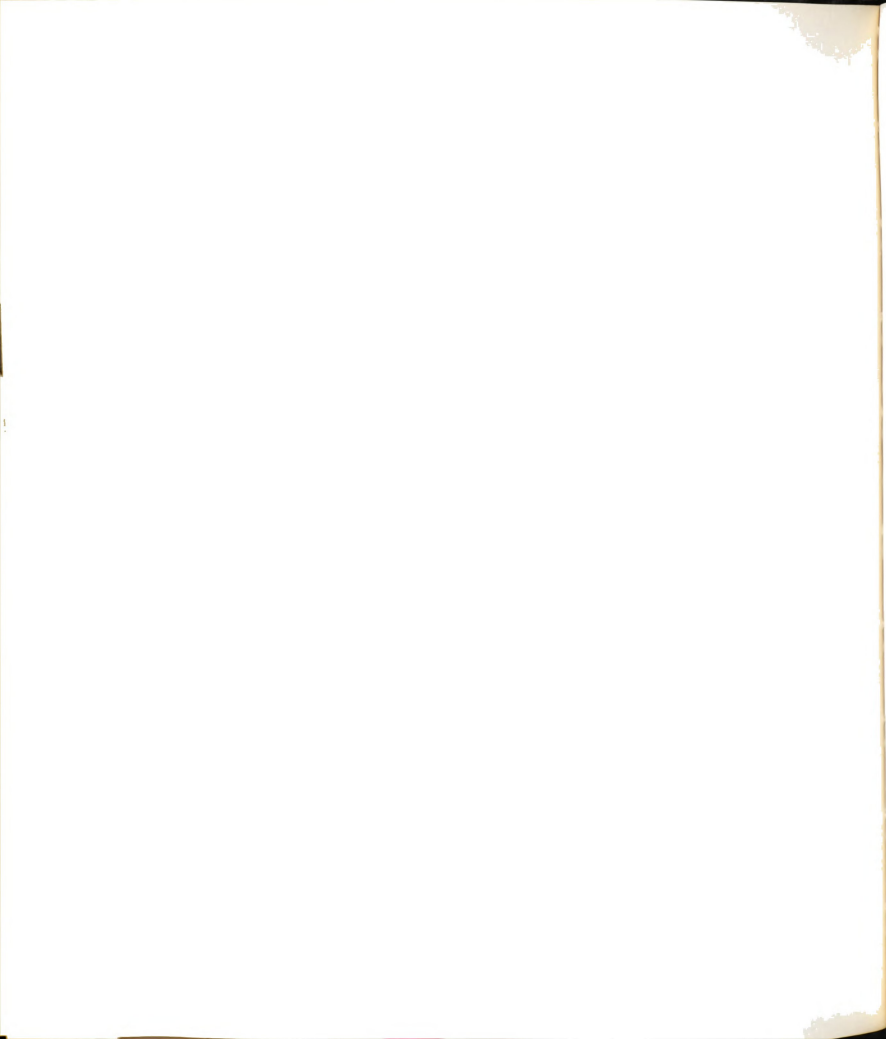
Attitude Toward Disabled Persons (ATDP) scale, regard-
of whether attitude content is favorable or unfavorable.

Table 7 indicates that high frequency of contact with disabled persons produced significantly higher intensity scores on the ATDP scale than did lower frequencies of contact. In determining the level of significance, approximately one third of the sample having the highest amount of contact were compared with approximately one third of the sample having the lowest amount of contact with disabled persons. Hypothesis 3a was confirmed.

TABLE 7.--Means, standard deviations, and F statistic comparing high and low frequency of contact with disabled persons with intensity scores on the ATDP scale

Variable	N	Mean of ATDP Intensity Scale	Standard Deviation	F	Sig. of F
High frequency contact	70	64.54	7.31	25.24	.005
Low frequency contact	76	57.87	8.62		
Total	146	61.07	8.66		

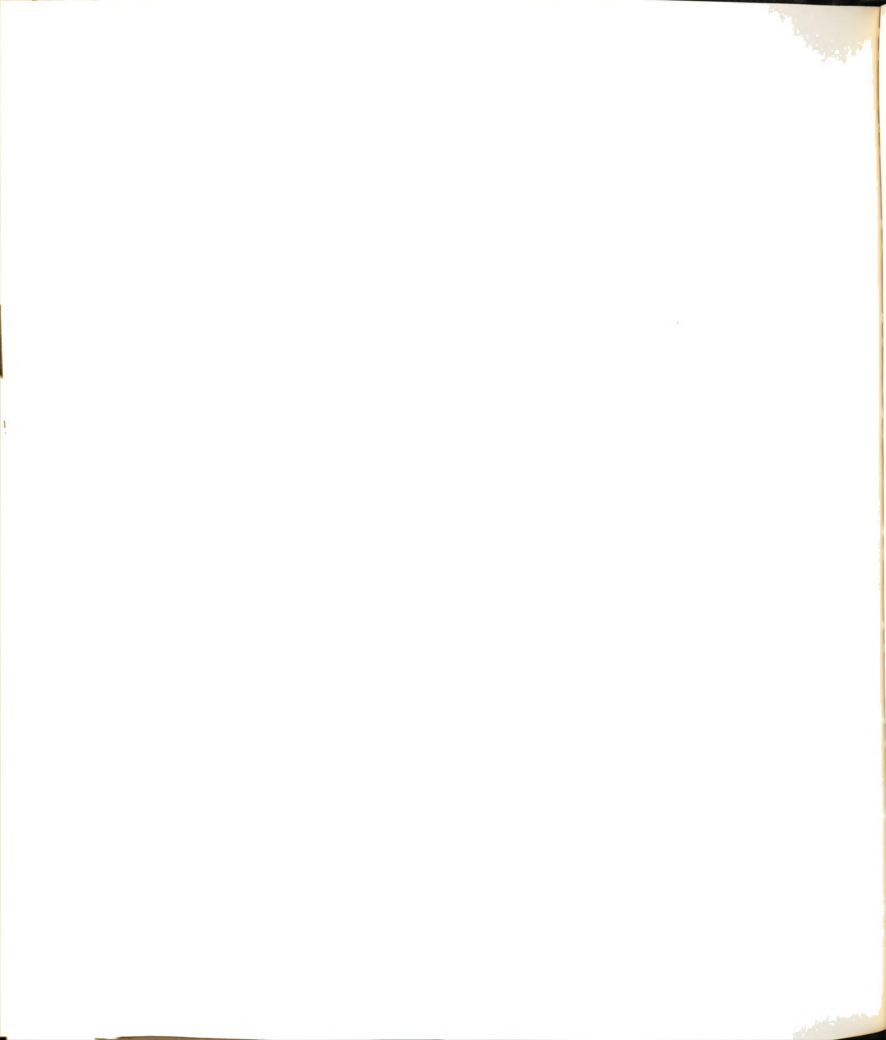
3b: The more frequent the contact with education, the
higher will be the scores on the intensity statements of the
Perlinger Attitude Toward Education scale, regardless of
whether the attitude is progressive or traditional.



as shown in Tables 8 and 9, the F statistics indicate the mean difference in scores for persons with high and low frequency of contact with education are not significantly different on either the progressive or traditional scales. Contrary to the hypothesis, the mean of the low frequency of contact group is higher than the high frequency of contact group on both the progressive and traditional attitude toward education scales. H-3b was confirmed.

TABLE 8.--Means, standard deviations, and F statistic comparing high and low frequency of contact with education with intensity scores on the Progressive Attitude Toward Education scale

Variable	N	Mean of Progressive Intensity Scale	Standard Deviation	F	Sig. of F
High frequency contact	57	31.72	3.83	3.82	.06
Low frequency contact	45	33.20	3.75		
Total	102	32.37	3.85		

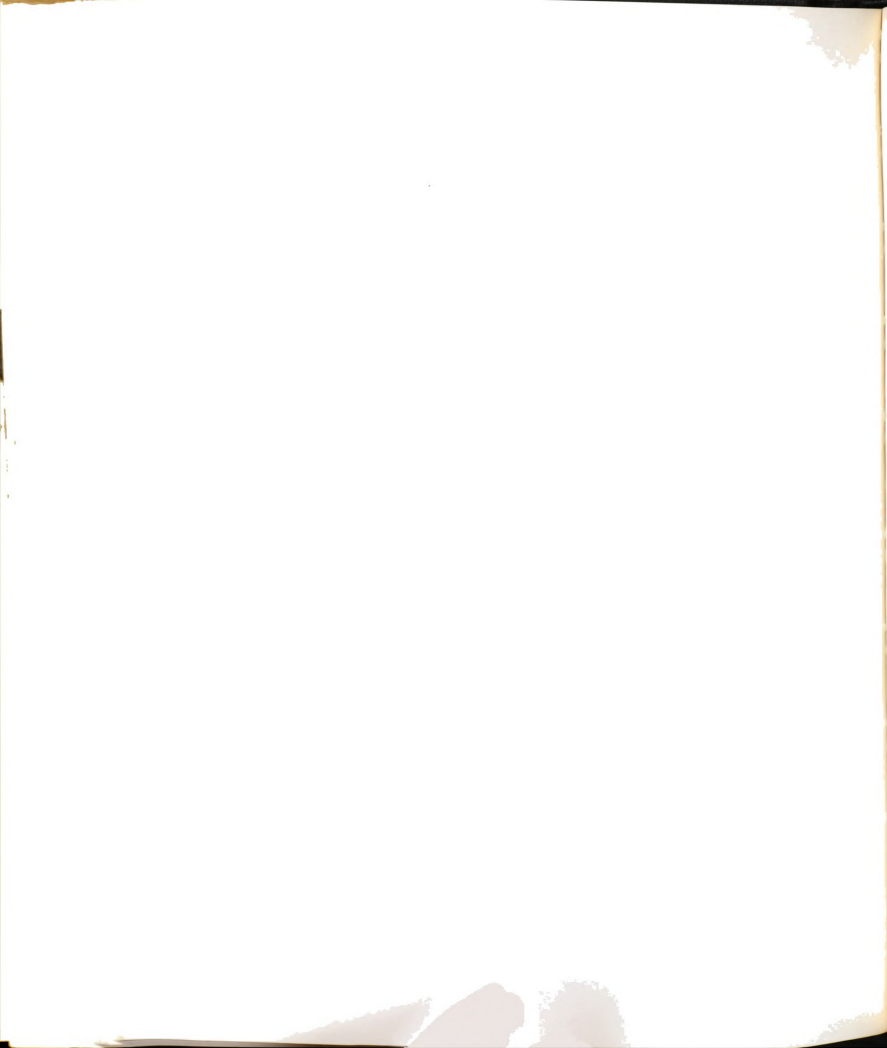


9.--Means, standard deviations, and F statistic comparing high and low frequency of contact with education with intensity scores on the Traditional Attitude Toward Education scale

le	N	Mean of Traditional Intensity Scale	Standard Deviation	F	Sig. of F
frequency tact	57	32.82	3.43	2.88	.09
frequency tact	45	34.02	3.67		
	102	33.35	3.57		

The zero order correlations between amount of contact disabled persons and intensity scores on the ATDP, and between amount of contact with education and intensity scores on the progressive and traditional Attitudes Toward Education scales are presented in Table 1. Significant positive correlations are indicated for female and total SER group, for the male and total M group, and for the total L group on the ATDP. There were no significant correlations, either positive or negative, between amount of contact with education and either progressive or negative attitudes toward education.

High frequency of contact with disabled persons will lead to favorable attitudes if high frequency is concurrent with (a) alternative rewarding opportunities, (b) enjoyment of the contact, and (c) ease of avoidance of contact.



10.--Zero-order correlations between amount of contact and intensity scores on the attitude scales for the occupational groups

	ATDP ¹ Scale		Education Scale ²			
	r	N	Progressive r	N	Traditional r	N
Group						
Female	.110	16	-.323	16	-.431	16
Male	.439*	31	-.063	34	-.106	34
Total	.329*	47	-.103	50	-.165	50

Group 3						
Female	.151	22	.137	33	.184	33
Total	.220	28	.079	41	.114	41

Group 4						
Female	.364**	66	-.154	24	.157	24
Total	.394**	72	-.154	24	.157	24

Group 5						
Female	.351	11	-.383	04	.629	04
Male	.370	18	.685	3	.423	3
Total	.414**	29	.336	7	.340	7

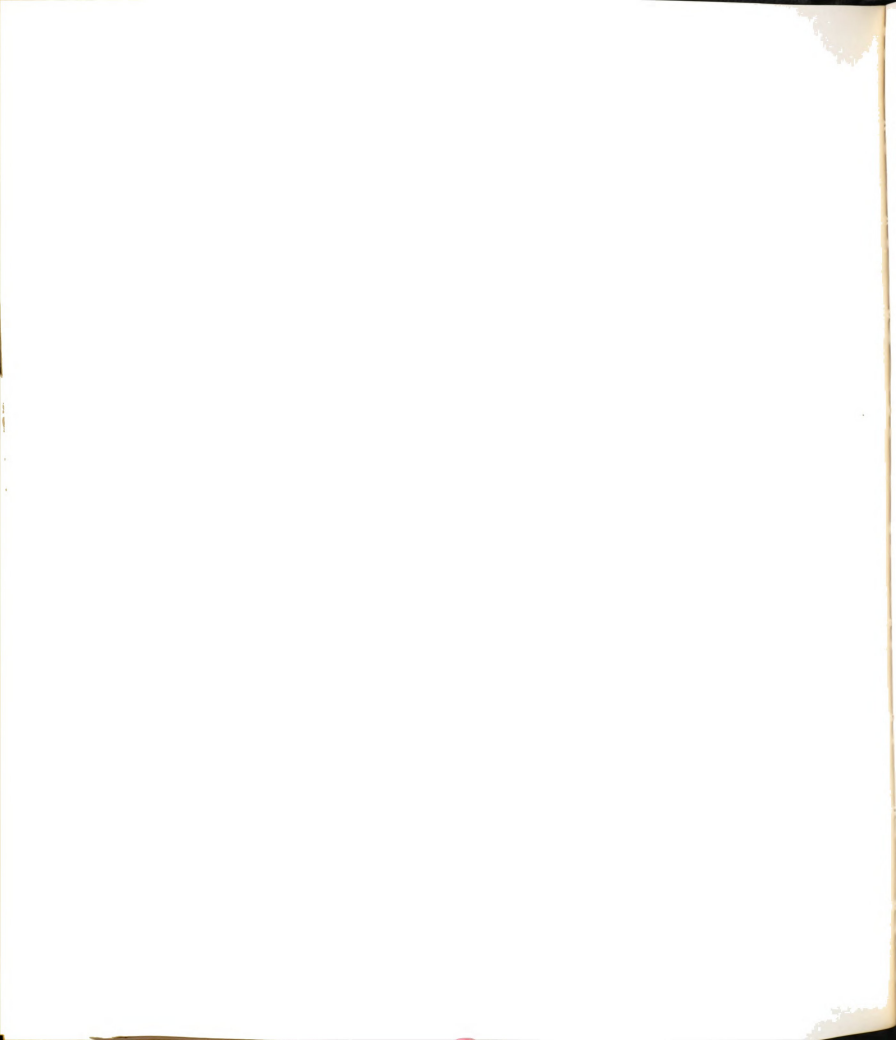
¹Low scores on ATDP indicate positive attitudes. Correlations are between amount of contact with disabled persons and intensity scores on the ATDP.

²Correlations are between amount of contact with education and intensity scores on Kerlinger's Attitudes Toward Education Scale.

³Since the N for this group was less than 10, correlations were not computed.

*P < .05

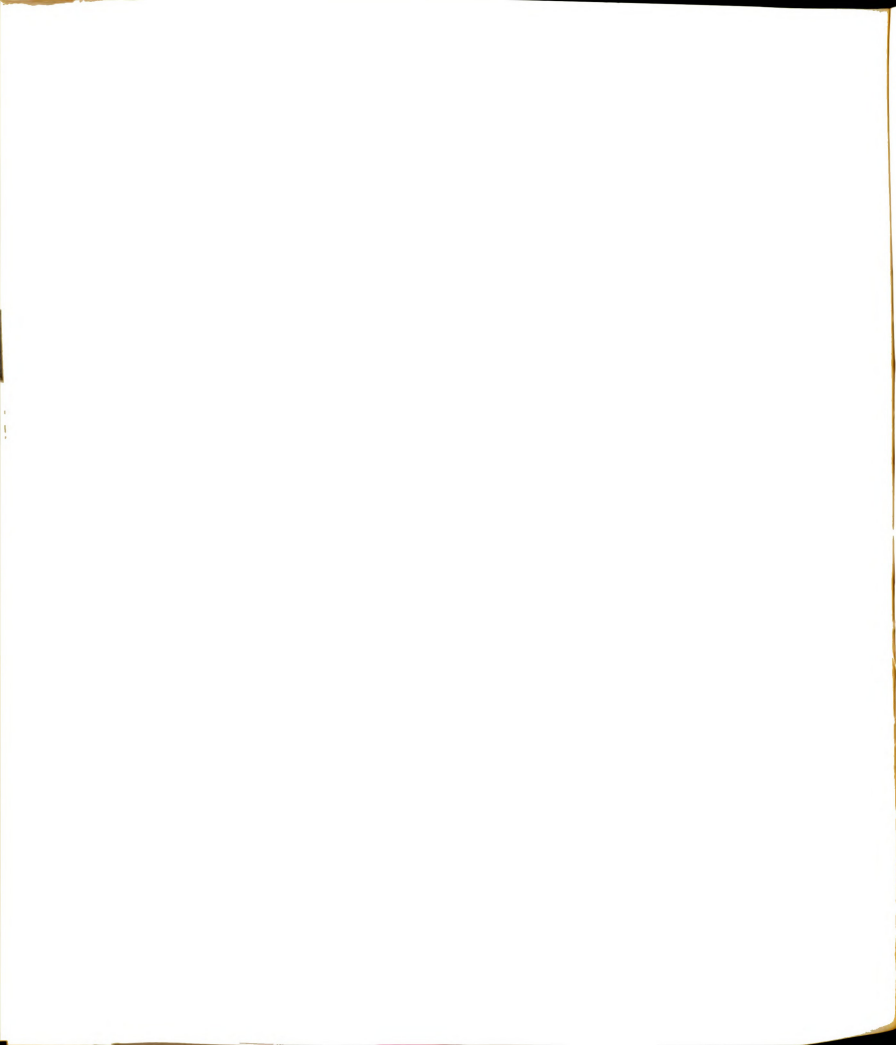
**P < .01



the multiple correlation relating to the combined variables and favorableness of attitudes toward handicapped persons, as indicated in Table 11, is significant at the .01 level of confidence. Table 11 also indicates that enjoyment of contact, when partialled out, contributes more than other contact variables in predicting attitudes toward handicapped persons. The correlation coefficient indicates a low (positive) ATDP score and enjoyment of contact. H-4a was confirmed.

High frequency of contact with education will lead to favorable attitudes if high frequency is concurrent with alternative rewarding opportunities, and (b) enjoyment of contact, and (c) ease of avoidance of contact.

For both progressive and traditional attitudes toward education, Table 11 indicates that no significant correlation exists between the combined variables and attitudes toward education, whether progressive or traditional. H-4b was not confirmed.



11.--Partial and multiple correlations between
 Attitude Toward Disabled Persons and
 Attitudes Toward Education (both progressive
 and traditional) as related to contact
 variables

ipped Persons Scale (dependent) N=133

of contact	-.09
ce of contact	-.04
nt of contact	-.22**
e correlation	.26**

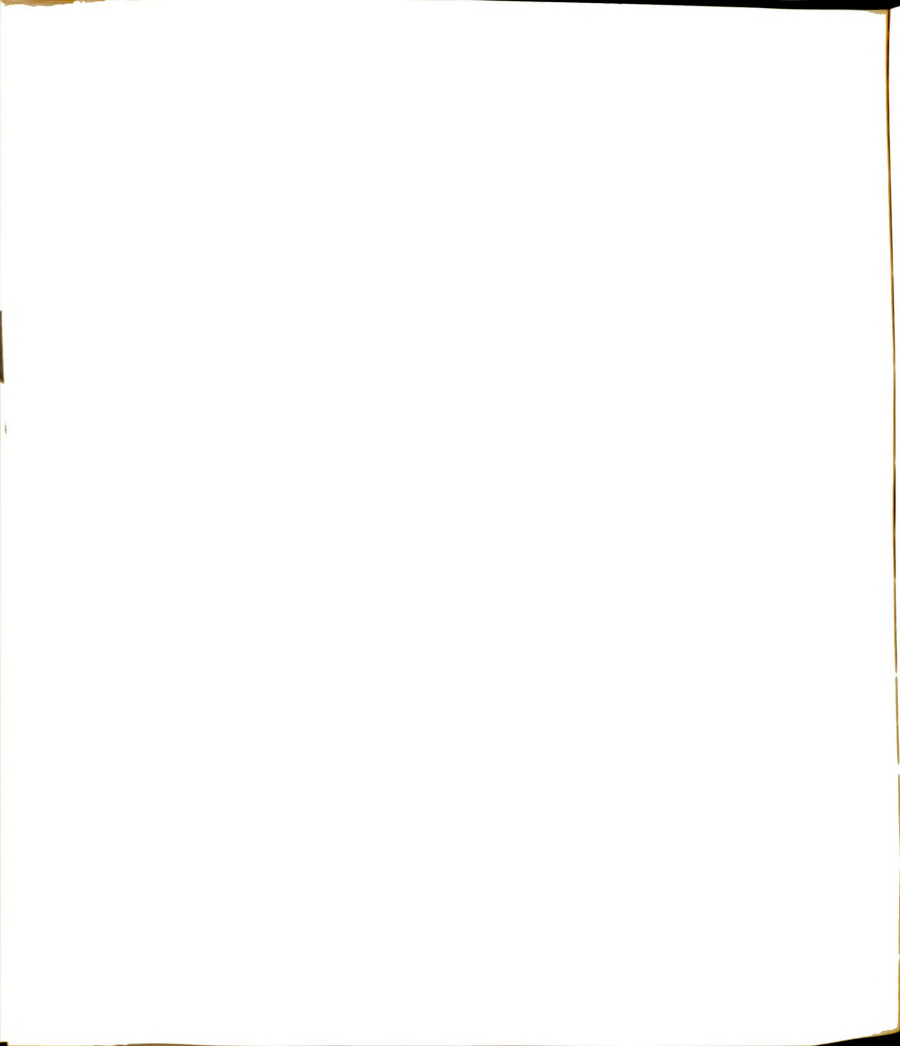
sive-attitudes-toward-education
 (dependent) N=120

of contact	.01
nt of contact	.11
ives to contact	-.01
e correlation	.12

nal-attitudes-toward-education
 (dependent) N=120

f contact	-.05
t of contact	.01
ives to contact	.15
e correlation	.16

p < .01



Uses Related to Value and Value Scores

Persons who score high in need for power and control
others will tend to score low in acceptance of
ed persons.

the data presented in Table 12 do not show a
significant difference between high and low Leadership
scores and Attitudes Toward Disabled Persons scores.
Hypothesis 5a was not confirmed.

12.--Means, standard deviations, and F statistic
comparing high and low scores on Leadership
value and Attitudes Toward Disabled Persons
scores

Use	N	Mean of ATDP	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
Scores on Leadership value	74	51.03	4.07	1.81	.18
Scores on Leadership value	71	50.06	4.60		
	145	50.55	4.35		

Persons who score high in need for power and
over others will tend to score low in progressive
uses toward education and high in traditional
uses toward education.

The F statistic presented in Table 13 indicates there
is a significant difference between persons with high and

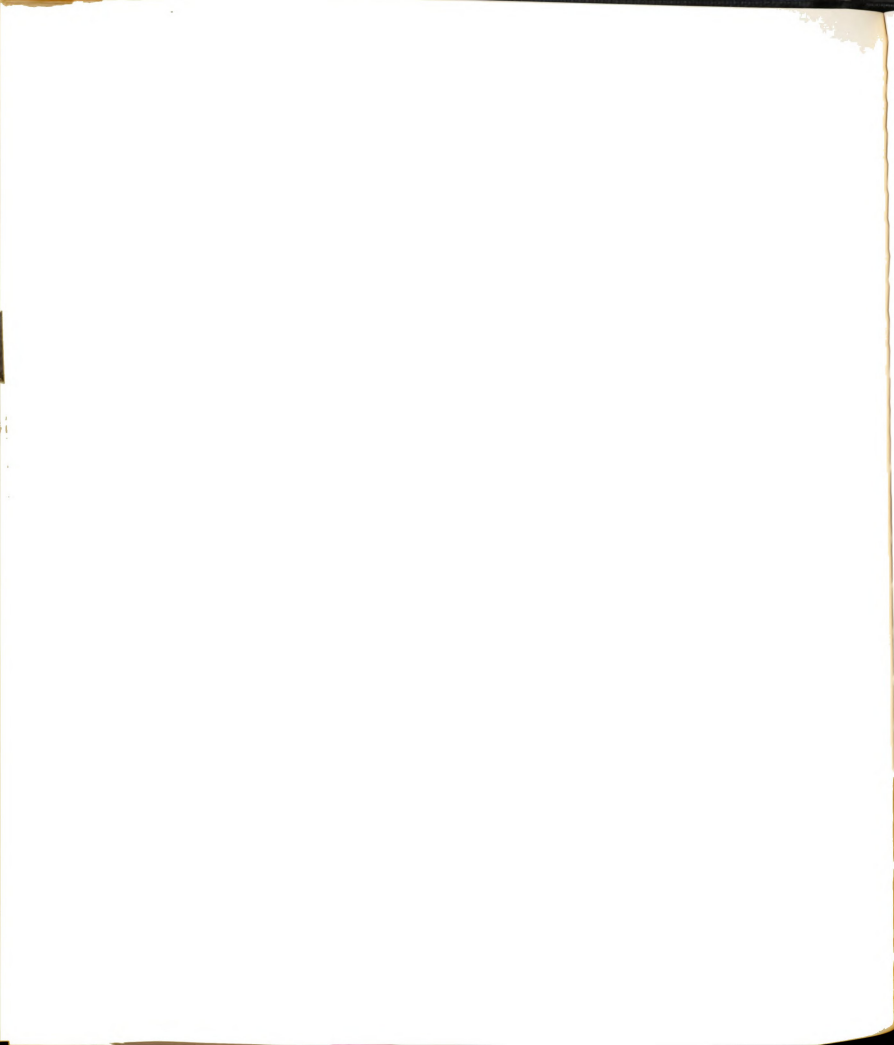
scores on Leadership value in relation to progressive attitudes toward education. Table 14, however, indicates a significant difference between high and low scores on Leadership value in relation to traditional attitudes toward education. H-5b was partially confirmed, i.e., for traditional, but not for progressive attitude scores.

TABLE 13.--Means, standard deviations, and F statistic comparing high and low scores on Leadership value and Progressive Attitudes Toward Education scores

Table	N	Mean of Progressive Scale	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
Leadership value scores	74	28.70	3.11	0.90	.35
Leadership value scores	71	28.24	2.75		
all	145	28.48	2.94		

TABLE 14.--Means, standard deviations, and F statistic comparing high and low scores on Leadership value and Traditional Attitudes Toward Education scores

Table	N	Mean of Traditional Scale	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
Leadership value scores	74	27.85	3.10	8.12	.01
Leadership value scores	71	26.37	3.18		
all	145	27.12	3.21		



Persons who score high in need for recognition and
ement will tend to score low in acceptance of
ed persons.

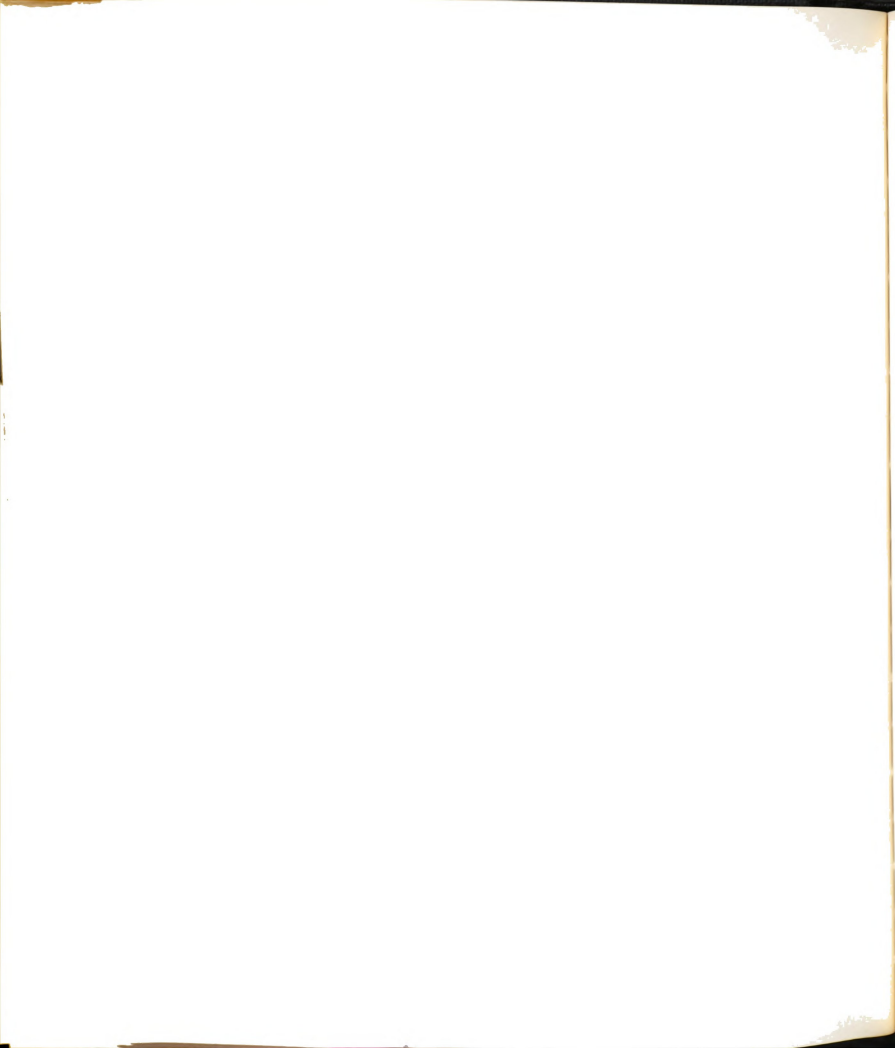
Table 15 indicates that persons who scored high on
nition value did not score significantly lower in
tance of disabled persons than those who scored lower
he scores are in the direction hypothesized. H-6a
ot confirmed by the data.

15.--Means, standard deviations, and F statistic com-
paring high and low scores on Recognition value
and scores on the Attitudes Toward Handicapped
Persons

able	N	Mean of ATDP	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
scores on ognition value	71	51.42	5.29	1.24	.27
scores on ognition value	68	50.56	3.67		
1	139	51.00	4.57		

: Persons who score high in need for recognition and
evement will tend to score low in progressive attitudes
tard education and high in traditional attitudes toward
ation.

The data presented in Tables 16 and 17 indicate
ere were no significant differences between those who



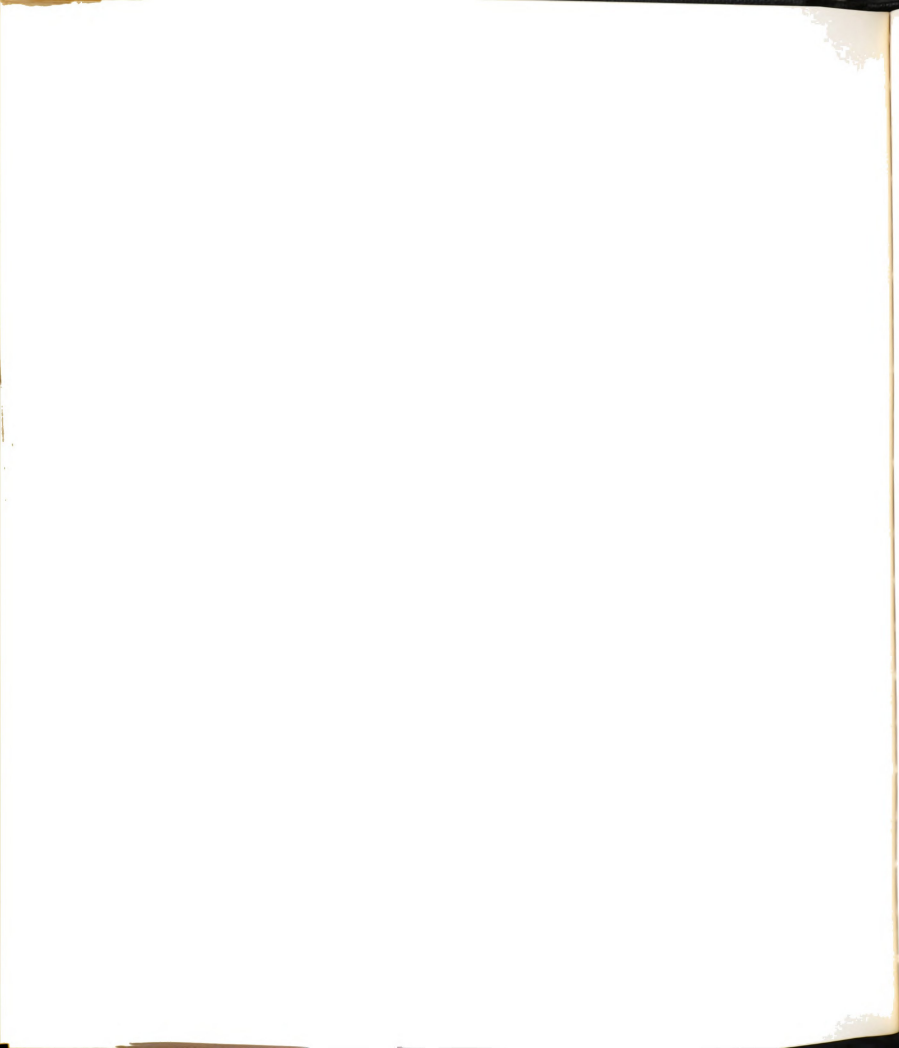
ved high scores on Recognition and those who received
cores on Recognition value when compared with scores
th progressive and traditional attitudes toward
tion. H-6b was not confirmed.

16.--Means, standard deviations, and F statistic
comparing high and low scores on Recognition
value and scores on the Progressive Attitudes
Toward Education scale

Table	N	Mean of Progressive Scale	Standard Deviation	F	Sig. of F
cores on ognition value	72	28.33	2.53	1.27	.26
cores on ognition value	68	28.88	3.20		
	140	28.60	2.88		

17.--Means, standard deviations, and F statistic com-
paring high and low scores on Recognition value
and scores on the Traditional Attitudes Toward
Education scale

Table	N	Mean of Traditional Scale	Standard Deviation	F	Sig. of F
cores on ognition value	72	27.49	2.95	0.54	.47
cores on ognition value	68	27.10	3.25		
	140	27.30	3.09		



Persons who score high in need to help others, to be generous, will tend to score high in acceptance of disabled persons.

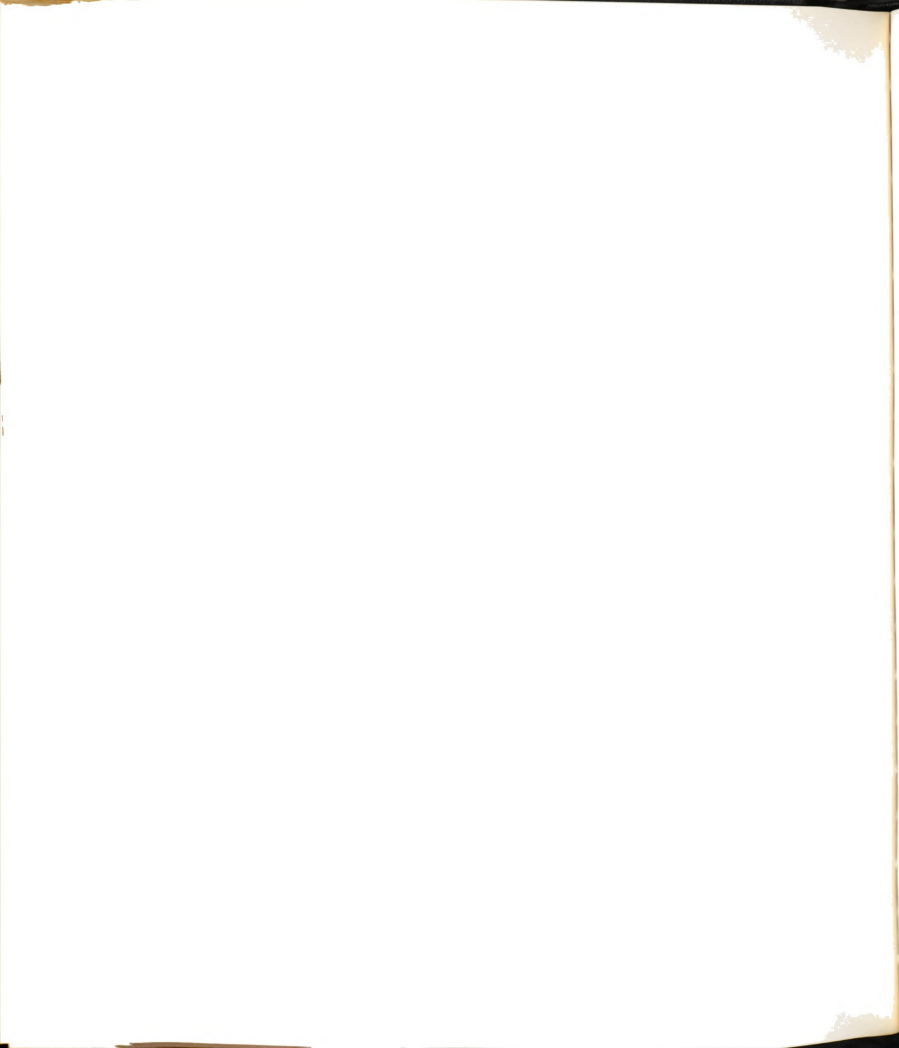
As indicated in Table 18, there were no significant differences between those who scored high and those who scored low on Benevolence value when compared with scores on the ATDP scale. H-7a was not confirmed.

Table 18.--Means, standard deviations, and F statistic comparing high and low scores on Benevolence value and scores on the ATDP scale

Table	N	Mean of ATDP Scale	Standard Deviation	F	Sig. of F
High scores on benevolence value	68	50.37	3.88	1.61	.20
Low scores on benevolence value	62	51.34	4.83		
Total	130	50.83	4.37		

Persons who score high in need to help others, to be generous, will tend to score high in progressive attitudes toward education and low in traditional attitudes toward education.

The data presented in Tables 19 and 20 indicate there were no significant differences between persons who scored high and persons who scored low on Benevolence value when



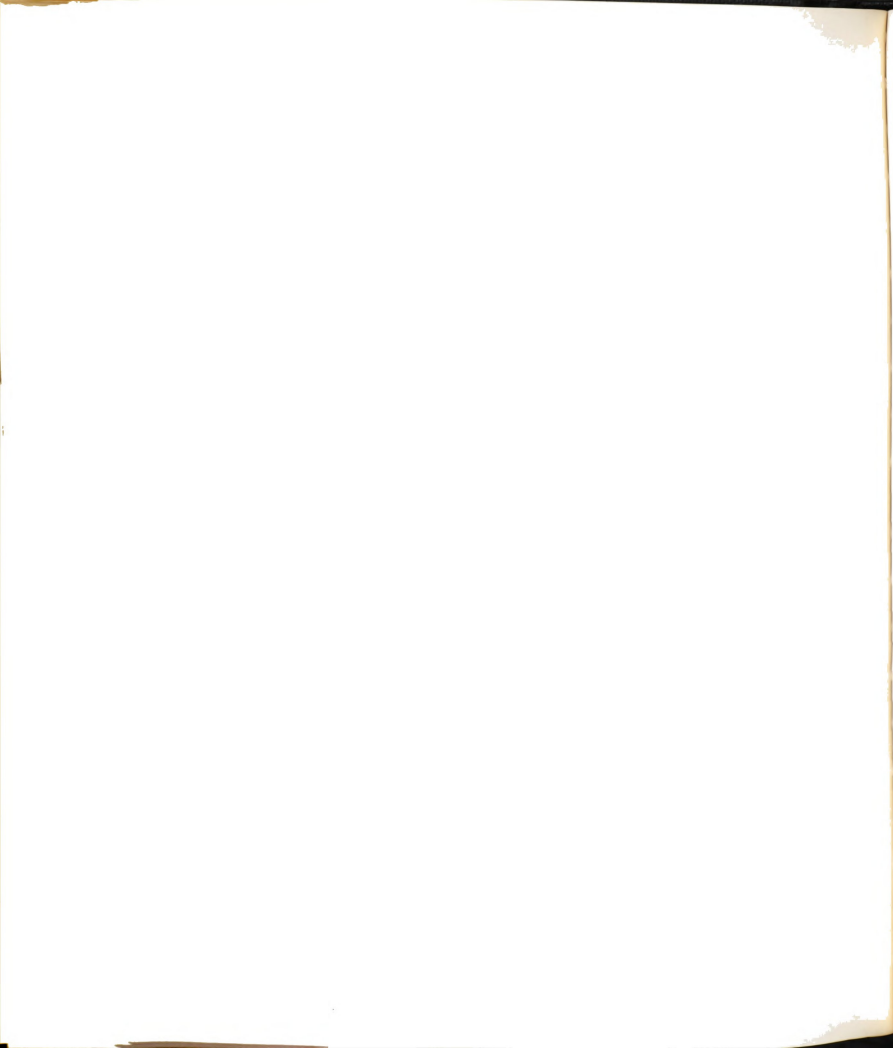
red to both progressive and traditional attitudes
 d education, although the scores were in the direction
 hesized. H-7b was not confirmed.

19.--Means, standard deviations, and F statistic
 comparing high and low scores on Benevolence
 value and scores on the Progressive Attitudes
 Toward Education scale

Table	N	Mean of Progressive Scale	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
h scores on benevolence value	68	29.29	3.08	2.90	.09
h scores on benevolence value	62	28.44	2.62		
al	130	28.88	2.89		

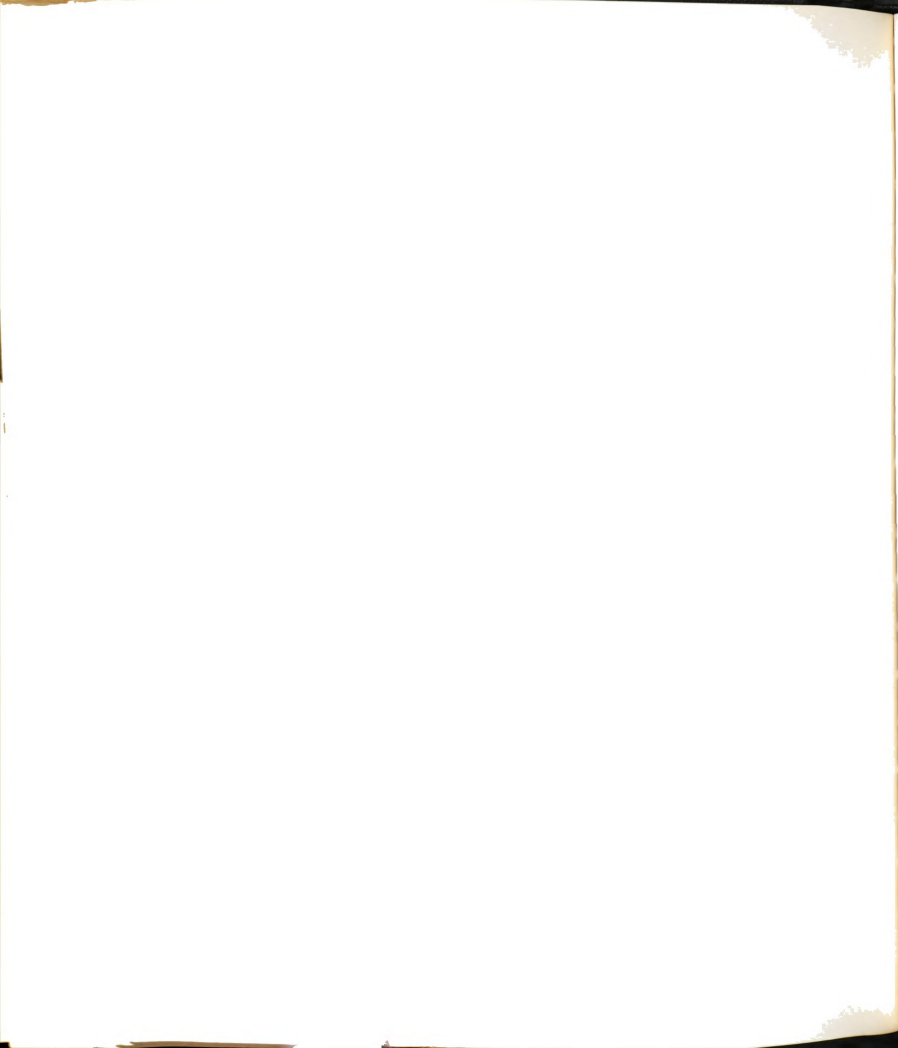
E 20.--Means, standard deviations, and F statistic com-
 paring high and low scores on Benevolence value
 and scores on the Traditional Attitudes Toward
 Education scale

Table	N	Mean of Traditional Scale	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
h scores on benevolence value	68	27.10	3.65	.025	.85
h scores on benevolence value	62	27.19	2.64		
al	130	27.15	3.19		



Women will score higher than men in (a) the need to help others, (b) positive attitudes toward the disabled, and (c) progressive attitudes toward education.

The data presented in Table 21 indicate that women have significantly higher Benevolence value scores than men. On the other hand scores for women on positive attitudes toward the disabled (i.e., lower scores), and for progressive attitudes toward education, though not statistically significant, are in the direction hypothesized. It is remembered that Japanese women have a significantly lower level of education than men, their failure to score higher on progressive attitudes toward education is even more meaningful. Hypothesis 7c, part (a), that women have a greater need to help others than do men was supported for the sample. H-7c, parts (b) and (c) were not confirmed.

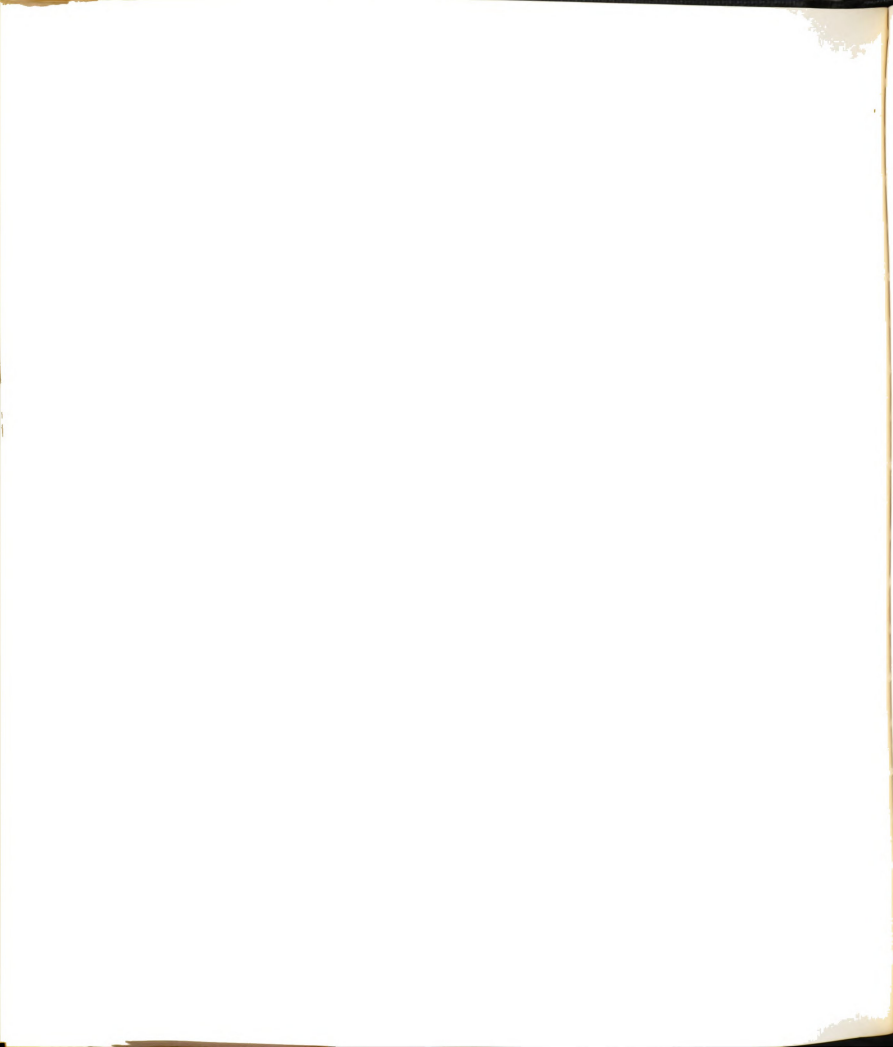


21.--Means, standard deviations, and F statistic for Benevolence value scores, ATDP scale scores, and Progressive Attitudes Toward Education scores for males and females

Variable	Sex	N	Mean	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
Benevolence	Male	113	18.27	4.76	4.49	.04
	Female	98	19.56	4.02		
	Total	211	18.87	4.47		

Handicapped Persons	Male	113	50.65	4.40	.09	.76
	Female	97	50.47	4.16		
	Total	210	50.57	4.28		

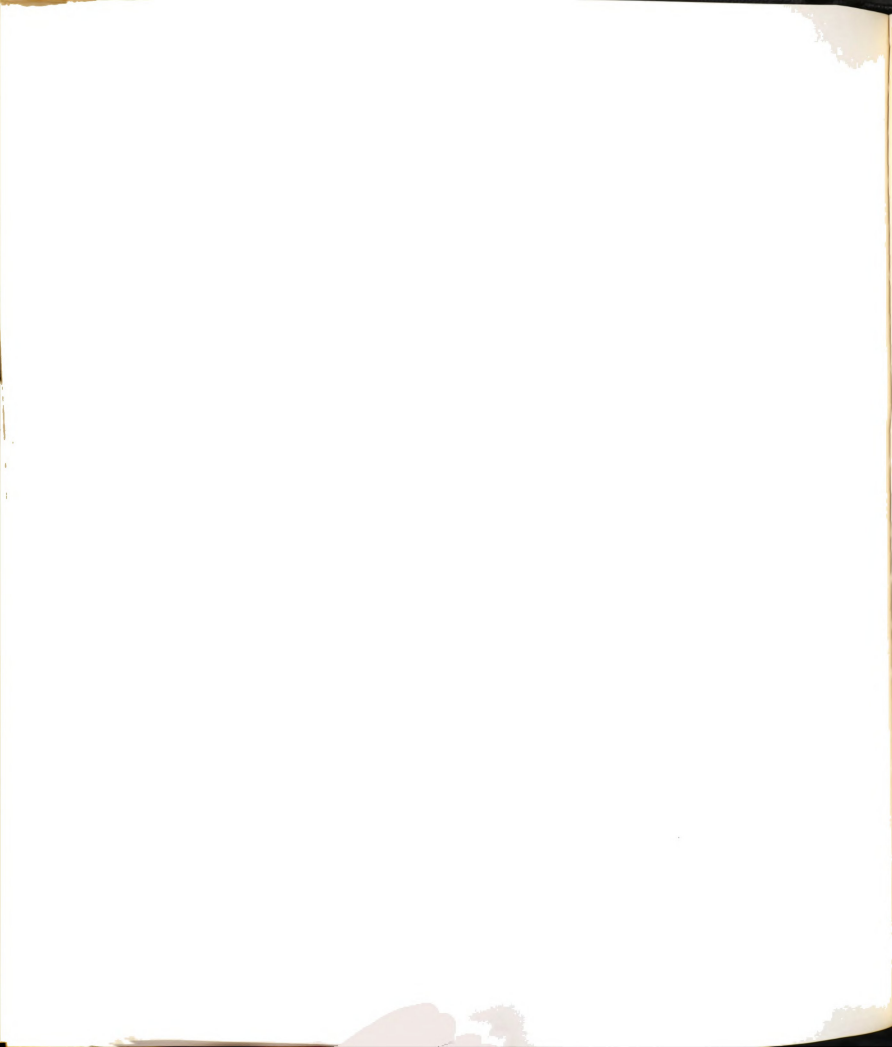
Progressive Attitudes Toward Education	Male	113	28.64	3.10	.04	.82
	Female	98	28.71	2.75		
	Total	211	28.67	2.94		



ity of zero-order correlations between
ides and value scores, H-5a through 7-c

The correlational analyses of attitude and value
s for all respondents are summarized in Tables 22, and
The data in Table 22 reveal significant positive re-
ships between Support value and attitudes toward
capped persons (HP attitudes) for the female and
L group (low scores for Support, low or positive
s on ATDP.) A significant negative relationship is
ated between Recognition value and HP attitudes for the
L group (high scores for Recognition, high or negative
s on ATDP.) A significant positive relationship was
between Benevolence value and HP attitudes for the
M group (low scores for Benevolence, high or negative
s for ATDP). These relationships are consistent with
heoretical model of the study.

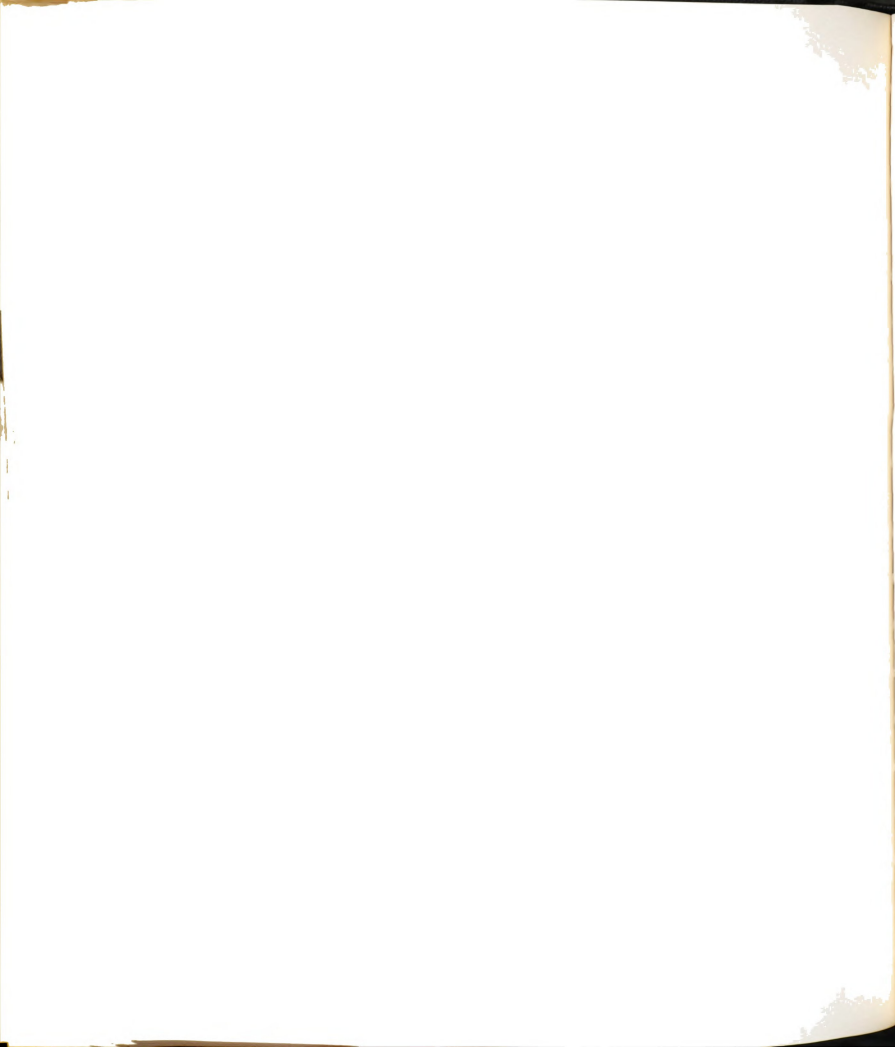
The data in Table 23 shows a negative correlation be-
Support value and progressive and traditional attitudes
d education for the female E group. According to the
etical model, teachers should score low on Support and
d therefore obtain scores indicating a positive relation-
between Support and traditional attitudes and a
ive relationship between Support and progressive
udes. A negative relationship was found between Support
and traditional attitudes toward education for the male
up, in keeping with the theoretical model.



A negative correlation exists between Conformity value and progressive attitudes toward education for the male, female, and total L group. This finding is not consistent with the theoretical model which postulates low scores for conformity and low progressive attitudes. Support and conformity values do not appear to be adequate predictors of attitudes toward education.

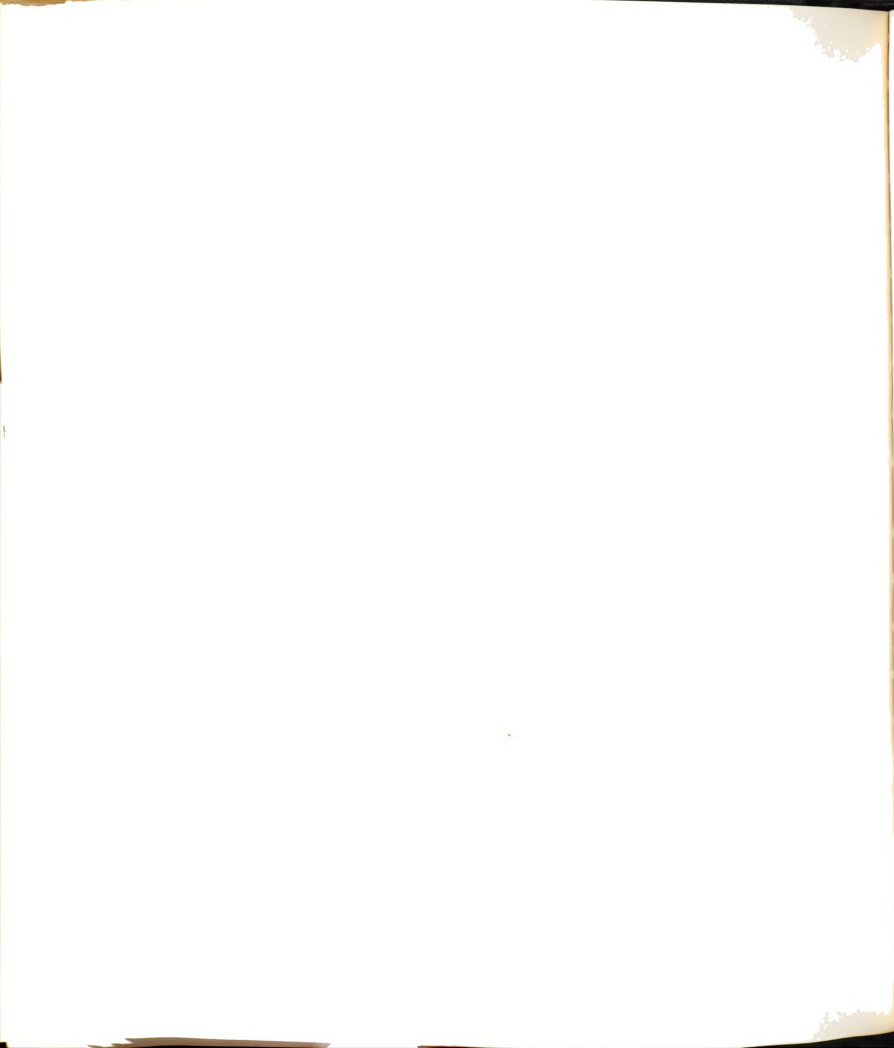
A negative relationship between Recognition value and progressive attitudes is indicated for the female SER group and is consistent with the model (low scores for recognition, high for progressive attitudes). A positive relation between Recognition value and progressive attitudes is indicated for the male L group, (high scores in both Recognition and progressive attitude) and is not consistent with model. In keeping with the model, a positive relationship was found between Leadership value and traditional attitudes toward education for the female L group (low scores in both Leadership value and traditional attitudes).

In summary, hypotheses 5a through 7c are not confirmed except for two sub-hypotheses (out of 12 hypotheses). There was a significant positive relation between high Leadership value scores and high scores on traditional attitudes toward education and vice versa. Also, female respondents had higher Benevolence scores than did the male respondents.



Group	Support		Conformity		Recognition		Independence		Benevolence		Leadership	
	r	N	r	N	r	N	r	N	r	N	r	N
<u>SER</u>												
Male	.011	16	.157	16	.015	16	.134	16	.257	16	.153	16
Female	.064	34	.055	34	.272	34	.161	34	.060	34	.306	34
Total	.025	50	.002	50	.170	50	.165	50	.121	50	.250	50
<u>Ed</u>												
Male ³												
Female	.073	32	.223	32	.150	32	.140	32	.089	32	.081	32
Total	.023	40	.224	40	.127	40	.165	40	.107	40	.144	40
<u>M</u>												
Male	.002	75	.064	75	.204	75	.051	75	.233*	75	.110	75
Female ³												
Total	.027	84	.084	84	.204	84	.103	84	.236*	84	.090	84
<u>L</u>												
Male	.337	14	.414	14	.578*	14	.057	14	.501	14	.317	14
Female	.515*	22	.058	22	.036	22	.037	22	.128	22	.177	22
Total	.358*	36	.212	36	.282	36	.007	36	.120	36	.276	36

¹High HP scores indicate negative attitudes
²SER = Spec. Educ. Rehab. E = Education M = Manager L = Labor
³Since the N for this group was less than 10, correlations were not completed
*p<.05
**p<.01



Group	Support		Conformity		Recognition		Independence		Benevolence		Leadership	
	Prog	Trad	Prog	Trad	Prog	Trad	Prog	Trad	Prog	Trad	Prog	Trad
<u>SER</u>												
Male (N)=16	389	140	234	442	060	123	013	.431	.013	290	.071	217
Female (N)=34	188	110	.118	061	.359*	.038	.098	.180	220	.029	286	351*
Total (N)=50	229	068	.007	082	.218	.027	.056	.184	.115	.096	184	159
<u>Ed</u> ²												
Male (N)=8												
Female (N)=33	486**	.458**	072	.080	112	.036	.114	.196	.192	.164	.323	252
Total (N)=41	.358*	.416	.150	.119	.046	.129	.105	.131	212	242	178	173
<u>M</u>												
Male (N)=75	053	.295*	.127	.097	.016	.069	.045	.039	123	.094	.055	.090
Female (N)=9	027	.218*	.133	.067	.024	.023	.037	.009	.131	.076	.008	.056
Total (N)=84												
<u>L</u>												
Male (N)=14	514	.047	.620*	.259	.560*	.316	.323	.303	.356	.036	.014	.231
Female (N)=22	372	.166	.470*	.196	.371	.319	.334	.261	.037	.039	.348	.065
Total (N)=36	176	.103	.589**	.033	.078	.203	.279	.204	.125	.051	.168	.045

* p < .05

** p < .01

1SER = Spec. Educ. Rehab. Ed. = Education M = Manager L = Labor

2Since the N for this group was less than 10, correlations were not computed



nesis Related to
the Orientation and
ude Scores

Persons who score high on change orientation will
high on positive attitudes toward handicapped
ns.

Table 24 indicates that the multiple correlation
 en HP attitudes and the combined change
 tation was not significant. When the six change
 bles are partialled out, none of the variables
 a significant differential contribution to the
 ple correlation. H-8a was not confirmed.

Persons who score high on change orientation will
score high on progressive attitudes toward
tion and low on traditional attitudes toward
tion.

The data in Table 24 indicate there is a
 fificant multiple correlation between change
 tation and both progressive and traditional
 udes toward education. Of the six change
 bles, health practices contributed significantly
 e correlation for traditional attitudes; child
 ng practices contributed significantly to the
 elation for progressive attitudes. H-8b was
 rmed.

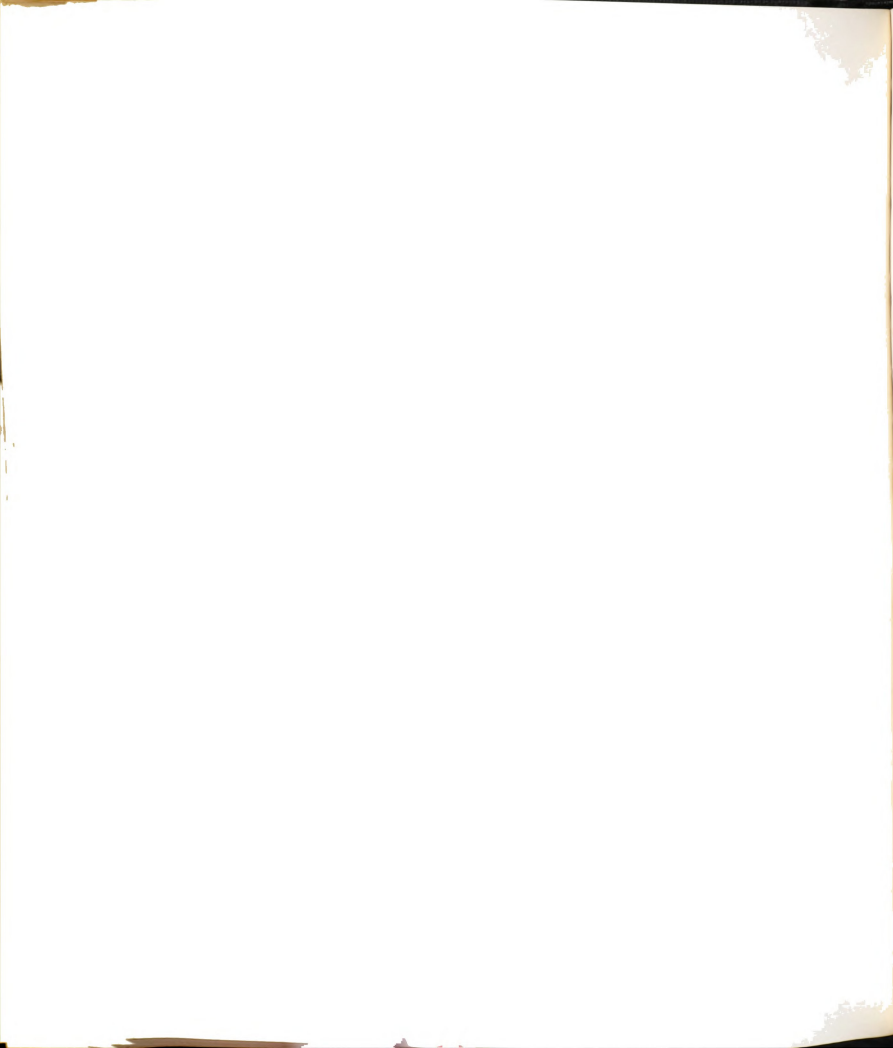


TABLE 24.--Partial and multiple correlations between attitudes toward handicapped persons and attitudes toward education (both progressive and traditional) as related to change orientation variables

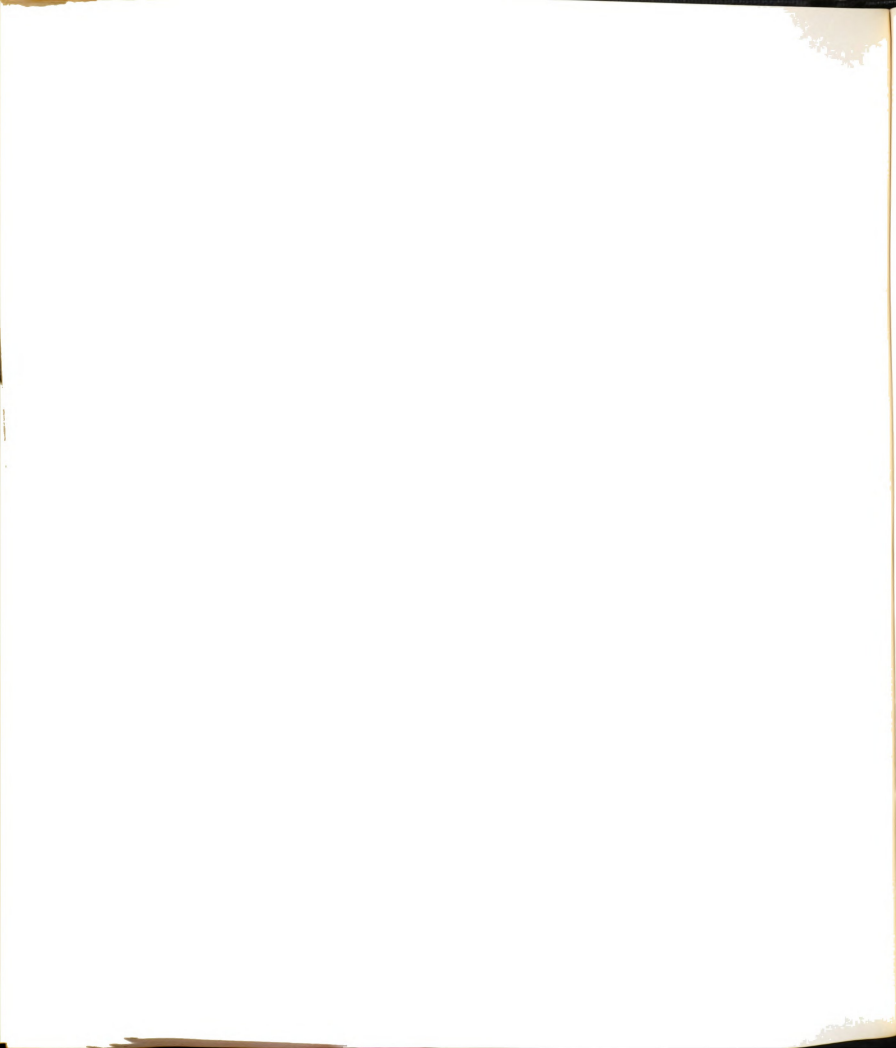
Handicapped Person Scale (dependent) N=206	
Health practices	.03
Child rearing practices	.01
Birth control practices	-.02
Automation	.06
Political leadership	.05
Self change	-.03
Multiple correlation	.11

Additional Attitudes Toward Education (dependent) N=207	
Health practices	.15*
Child rearing practices	.07
Birth control practices	.01
Automation	.11
Political leadership	.07
Self change	-.13
Multiple correlation	.27**

Progressive Attitudes Toward Education (dependent) N=207	
Health practices	.09
Child rearing practices	.21**
Birth control practices	-.07
Automation	.03
Political leadership	-.07
Self change	-.04
Multiple correlation	.28**

* $p < .05$

** $p < .01$



Hypotheses Related to the Characteristics
of Persons Working Directly With Disabled
Persons (the SER group)

H-9: The SER group will have a lower mean Attitude Toward
Disabled Persons score than will persons in other
occupational categories.

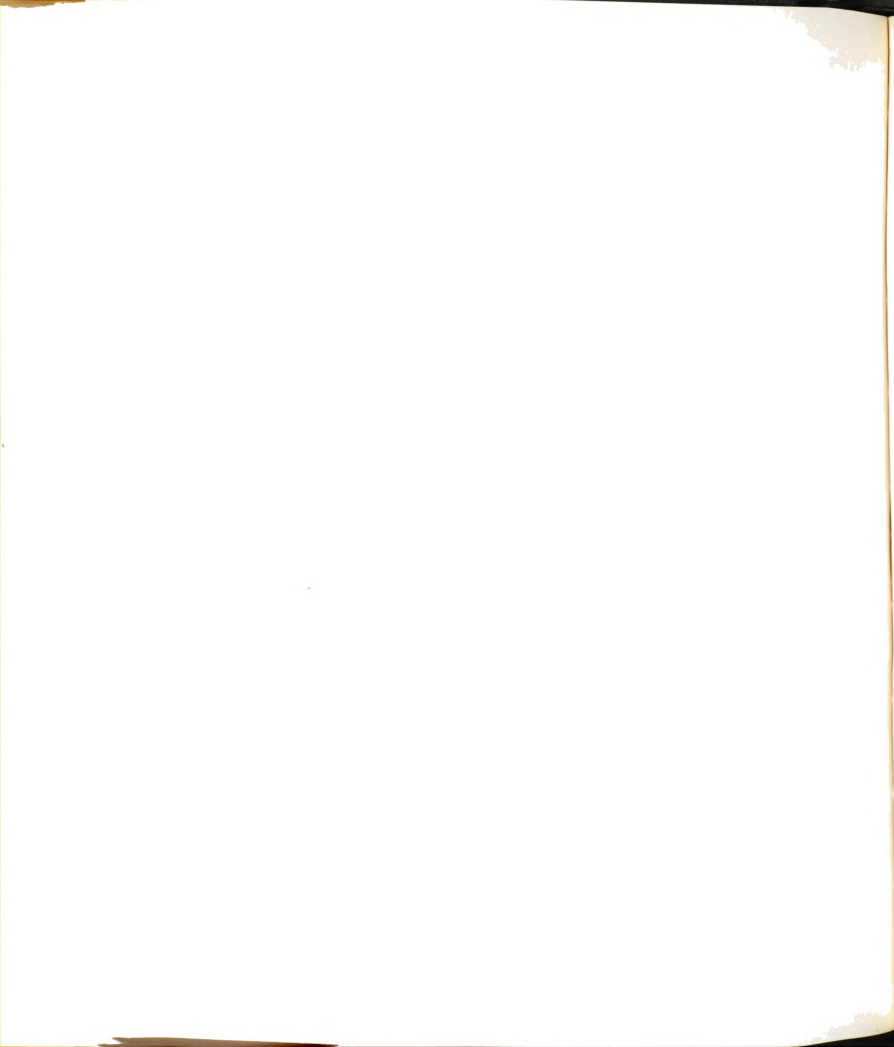
The mean scores, standard deviations, ranking of means, and a summary of analysis of variance data is presented for Attitudes Toward Disabled Persons scores. As indicated, the F statistic was not significant. The scores on the ATDP scale were not significantly different between the four occupational groups, although the results were in the direction of the hypothesis with the SER group having the lowest mean score. High scores on the ATDP scale refer to negative attitudes and the lower the score, the more positive the attitude. This hypothesis was not confirmed.

TABLE 25.--Means, standard deviations, F statistics, and mean rankings for Attitudes Toward Disabled Persons scores for four occupational categories

Occupational category ¹	N	Mean Score	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
SER	50	49.70	3.04	1.24	.29
	40	51.43	3.95		
	84	50.69	5.02		
	36	50.56	4.14		
Total	210	50.57	4.28		

Ranking of Means: E(51.43) > M(50.69) > L(50.56) > SER(49.70)

SER = Spec. Educ. Rehab E = Education L = Labor
M = Manager



-10: The SER group will have a higher mean score than all persons in other occupational categories in respect to the value of Benevolence, and will have a lower mean score in respect to the values of Leadership and Recognition.

The F statistics presented in Tables 26, 27, and 28 indicate the SER group had scores significantly different from other occupational groups. The Duncan's Multiple Means Test results indicate which means are significant from the others. For Benevolence Value (Table 26), the SER mean scores are significantly different from the mean scores of the L, M and E groups, with the SER group having the highest Benevolence score as hypothesized. For Leadership value (Table 27), the M group has next to the lowest score (E group is lower) rather than the lowest as hypothesized. The Duncan's Test results indicate however, that only the M group has a mean score significantly higher than the L group.

For Recognition value, (Table 28), the SER group has the lowest mean score which is significantly different from only the L group.

In summary, this hypothesis is considered confirmed for the Benevolence value, and partially confirmed for Leadership (M group) and Recognition (L group) values.

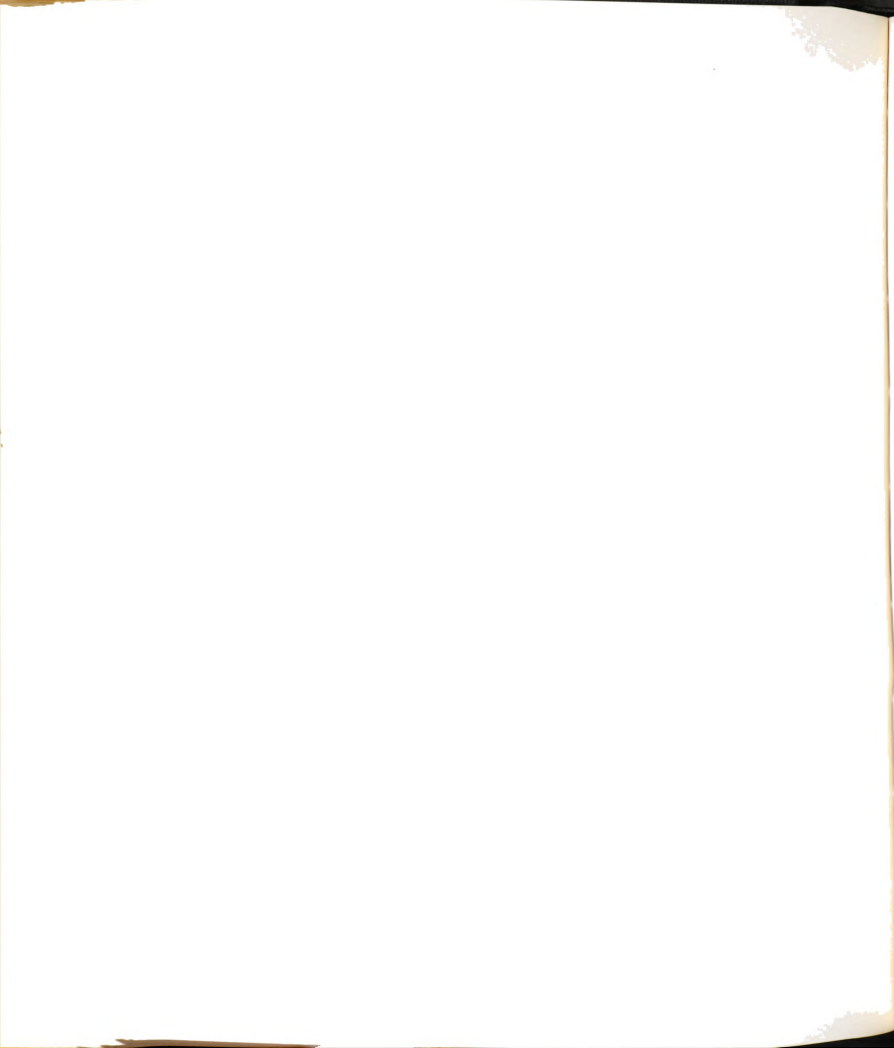


TABLE 26.-- Means, standard deviations, F statistic mean rankings, and Duncan's Test results for Benevolence value scores for four occupational categories

Occupational Category ¹	N	Mean Score	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
SER	50	21.22	3.10	6.39	.005
E	41	19.27	4.78		
M	84	17.80	4.59		
L	36	17.64	4.24		
Total	211	18.87	4.47		

Ranking of Means: $R(21.22) > E(19.27) > M(17.80) > L(17.64)$

Duncan's Test Results: $R > L$; $R > M$; $R > E$

SER = Spec. Educ. Rehab. E = Education L = Labor
M = Manager

TABLE 27.-- Means, standard deviations, F statistic, mean rankings, and Duncan's Test results for Leadership value scores for four occupational categories

Occupational Category ¹	N	Mean Score	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
SER	50	10.28	4.09	2.62	.05
E	41	10.12	4.14		
M	84	13.12	5.21		
L	36	12.86	5.92		
Total	211	11.82	5.07		

Ranking of Means: $M(13.12) > L(12.86) > R(10.28) > E(10.12)$

Duncan's Test Results: $M > E$; $M > R$;

SER = Spec. Educ. Rehab. E = Education L = Labor
M = Manager

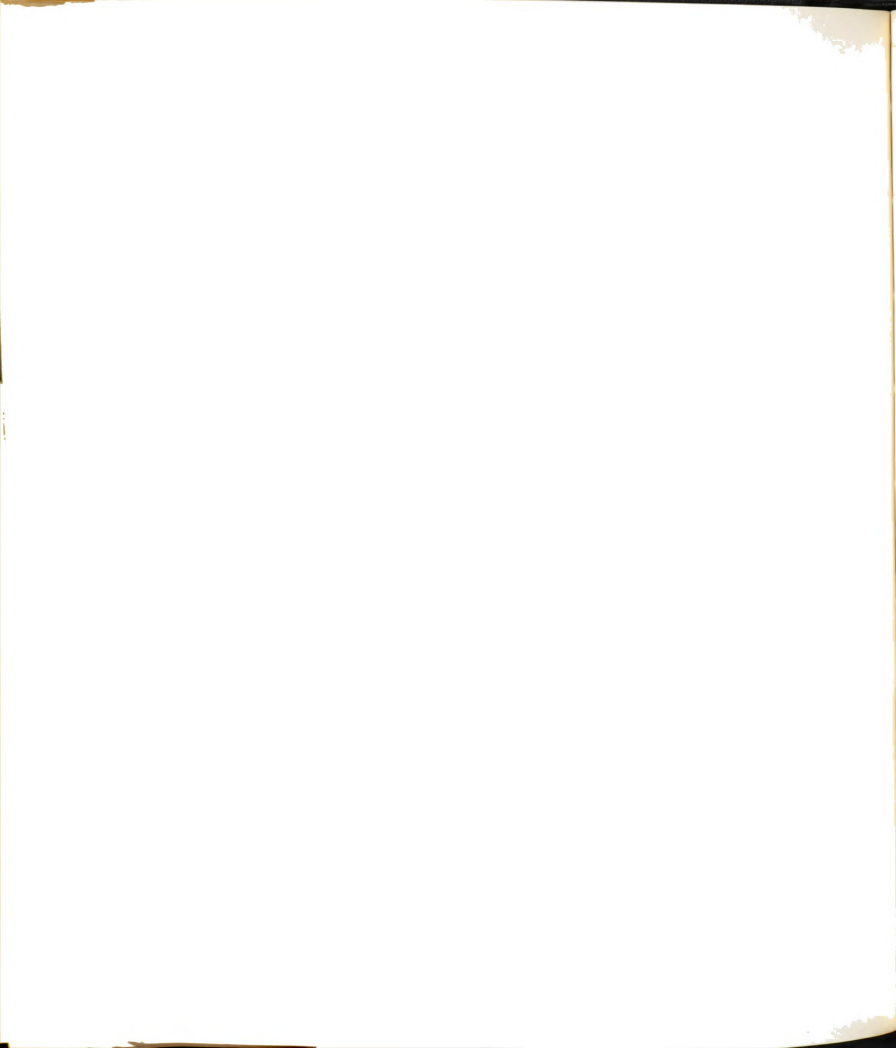


TABLE 28.--Means, standard deviations, F statistic, mean rankings, and Duncan's Test results for Recognition value scores for four occupational categories

Occupational Category ¹	N	Mean Score	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
R	50	7.00	2.87	2.91	.03
	41	7.32	2.65		
	84	7.96	2.67		
	36	8.81	3.11		
al	211	7.75	2.84		
Ranking of Means: L (8.81) > M (7.96) > E (7.32) > R (7.00)					
Duncan's Test Results: L > R; L > E					

R = Spec. Educ. Rehab. E = Education L = Labor
= Manager

a: The SER group will have a higher mean score on progressive attitudes toward education than will persons in other occupational categories.

Data related to this hypothesis are presented in Table 29 showing the SER score to be in the opposite direction from that predicted, with the SER group having a higher score than the L group, and a lower score than the M groups. However, the scores for the four groups were not significantly different. Friesen (1966, p. 183) stated that the progressive attitude scores were not significantly different for the three occupational groups in Colombian and Peruvian samples. H-11a was not confirmed.

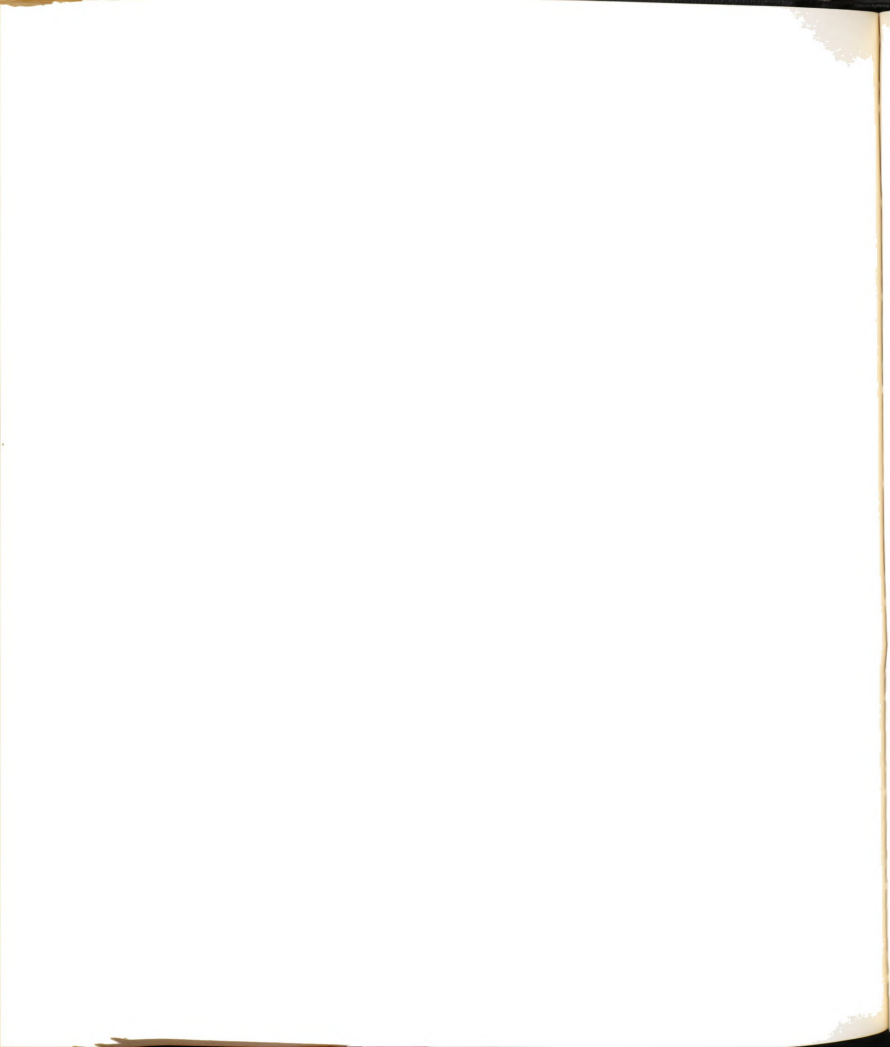


TABLE 29.--Means, standard deviations, F statistic, and mean rankings for Progressive Attitude Toward Education scores for four occupational categories

Occupational Category ¹	N	Mean Score	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
	50	28.50	2.61	.69	.56
	41	29.17	2.72		
	84	28.70	3.27		
	36	28.25	2.79		
Total	211	28.67	2.94		

Ranking of Means: E(29.17) > M(28.70) > R(28.50) > L(28.25)

¹ = Spec. Educ. Rehab. E = Education L = Labor Manager

Conclusion: The SER group will have a lower mean score in traditional attitudes toward education than will persons in other occupational categories.

The F statistic and Duncan's Test results as reported in Table 30, indicate there are significant occupational differences in traditional attitudes toward education. Among the four groups, the SER group had the lowest mean scores. H-11b was confirmed.

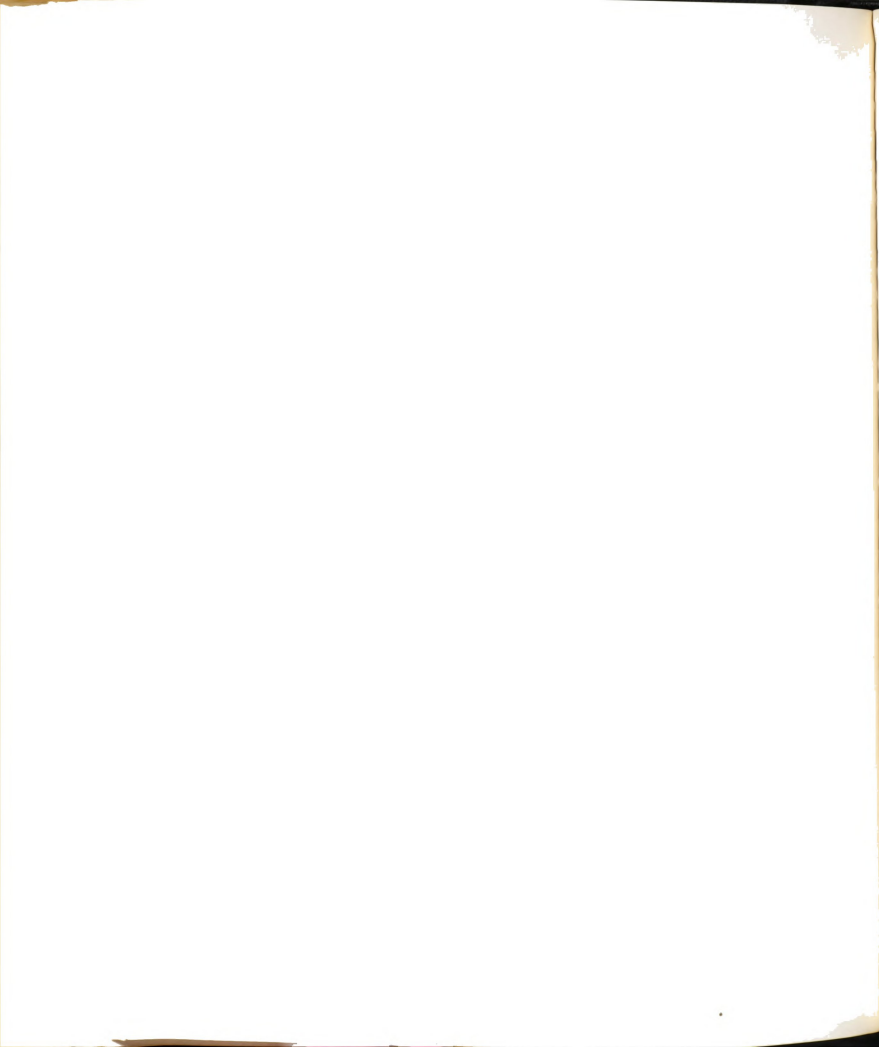


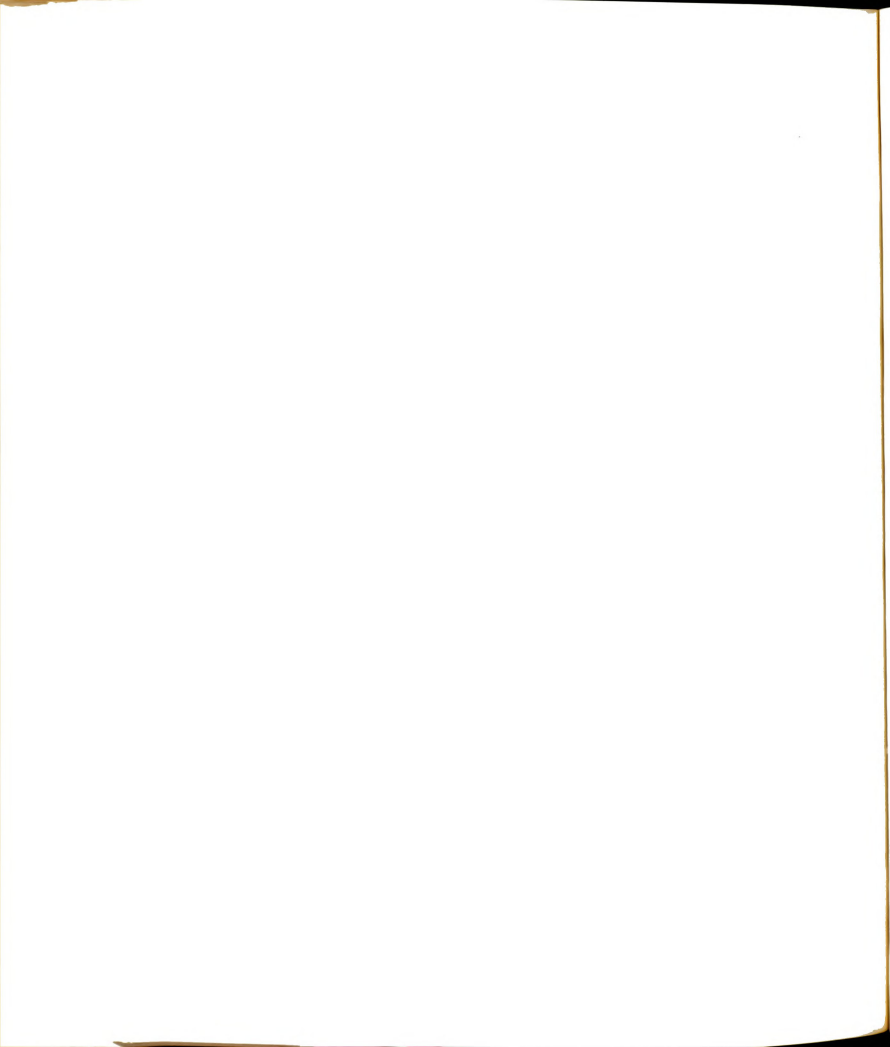
TABLE 30.--Means, standard deviations, mean rankings, Duncan's Test results for Traditional Attitudes Toward Education scores for four occupational categories.

Occupational Category ¹	N	Mean Score	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
	50	25.50	2.86	7.72	.005
	41	26.90	2.91		
	84	27.94	3.22		
	36	27.83	2.89		
Total	211	27.14	3.16		
Ranking of Means: M(27.94) > L(27.83) > E(26.90) > R(25.50)					
Duncan's Test Results: M > R; L > R; E > R					

¹ M = Spec. Educ. Rehab. E = Education L = Labor Manager

: The SER group will have a higher mean score than other occupational groups on the following change orientation variables: (a) health practices, (b) child rearing practices, (c) birth control practices, (d) education, (e) political leadership, and (f) self-change.

Table 31 contains the means, standard deviations, statistics, and Duncan's Test results for six variables relating to change orientation. The data reveal a significant difference between SER and the other groups in automation but in the opposite direction from that hypothesized. The M group had the highest scores on this variable. For the other change variables - health practices,



rearing practices, birth control practices, political leadership and self change there were no significant differences in responses between groups.

The questions to which the respondents reacted are as follows:

Chemicals in Drinking Water: 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 at a little cost to you, would you be willing to have the chemicals added?

Rearing Practices: 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 about the following statement? "New methods of raising children should be used out whenever possible."

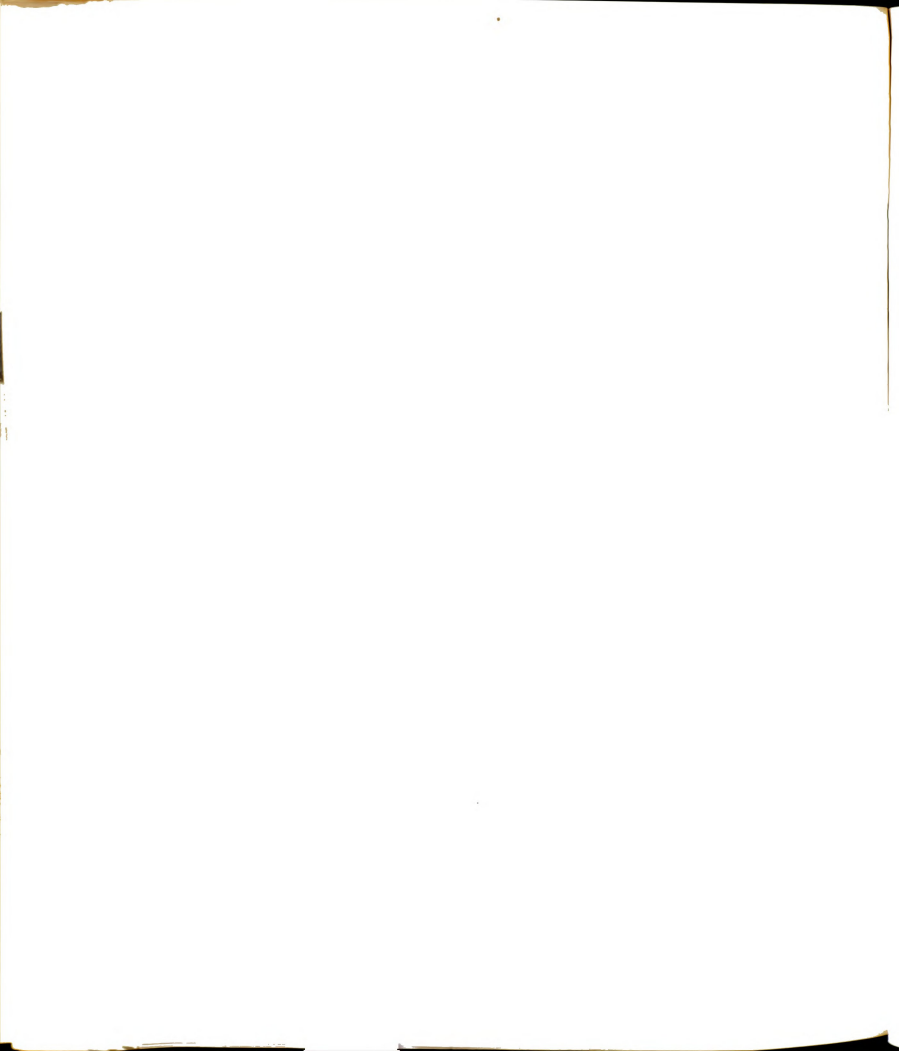
Family Planning: Family planning on birth control has been discussed by many people. What is your feeling about married couples practicing birth control? Do you think they are doing something good or bad? If you had to choose, would you say they are doing wrong, or rather they are doing right?

Automation: People have different ideas about what should be done concerning automation and other new ways of doing things. How do you feel about the following statement? "Automation and similar new procedures should be encouraged (in government, business, and industry) since usually it creates new jobs and raises the standard of living."

Political Leadership: Running a village, city, town or governmental organization is an important job. What is your feeling on the following statement? "Political leadership should be changed regularly, even if they are doing a good job."

Change: Some people are more set in their ways than others. How do you rate yourself? [Choices: very easy or very difficult; somewhat or very easy.]

Since the responses on the five variables are not significantly different between the four occupational

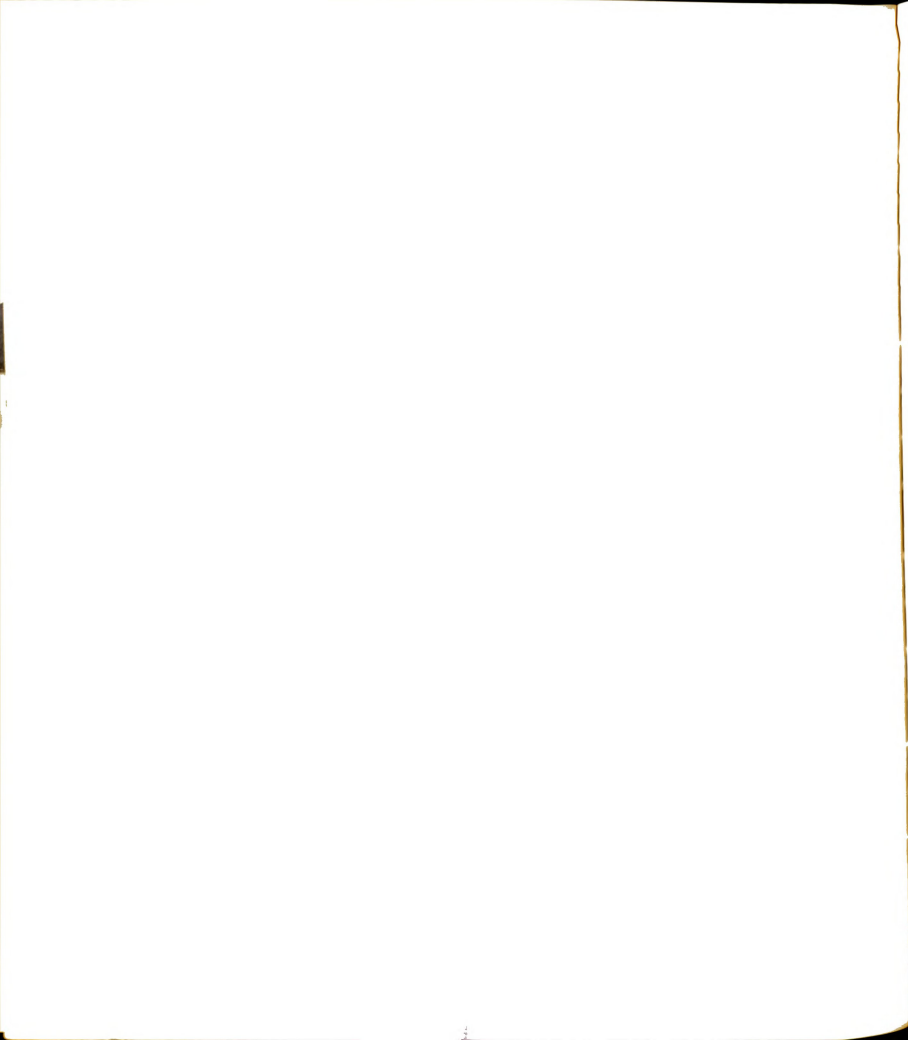


ups, the mean score of the total sample may be an indication of current Japanese thought. For Health Practices, mean score of 2.82 indicates a response between "No" or "Maybe" (3). For this particular sample of Tokyo students, a transitional orientation (i.e., neither traditional nor progressive) to health practices seems to be indicated.

For Child Rearing Practices, a mean score of 2.91 indicates a response between "Slightly disagree" (2) and "Slightly agree" (3). Such a score may indicate a transitional stage with the respondents tending to favor progressive child rearing practices.

For Birth Control Practices, a mean score of 1.99 indicates responses between "It is always right" (1) and "It is probably all right" (2). These responses may indicate current practice in a country where the birth rate is the lowest of Asian nations and lower than many other countries.

For Automation, the mean scores for the groups range from 3.04 (SER) to 3.44 (M) with a total mean of 3.29. This indicates a response between "Agree moderately" (3) and "Agree strongly" (4). Though the groups are significantly different, they can all be placed on a continuum of response between 3.00 and 4.00, indicating a progressive attitude toward automation in all groups.



For Political Leadership, a mean score of 3.00 indicates a response of "Slightly agree." The mean responses for the SER and L groups indicate a response between "Slightly disagree" (2) and "Slightly agree" (3). The mean responses for the E and M groups are between "Slightly agree" (3) and "Strongly agree" (4).

For Self Change, a mean score of 2.61 indicates a response between "Slightly difficult to change" (2), "Somewhat easy to change" (3). The mean scores for groups ranged from 2.56 to 2.67 and may indicate a transitional orientation to self change. That is, personal change may be somewhat easier to accomplish and may be viewed as a concomitant of current rapid social change in which permits the individual to be more self-determining than was previously possible in a traditionally structured society.

In summary, the SER group did not have higher means, as predicted, on any of the six variables. The group was significantly different from the other groups on Automation but in the opposite direction from predicted. (However, for all change variables, Health Practices and Self Change the total sample indicate a progressive orientation to life.) H-12 is not confirmed for any of the change variables.

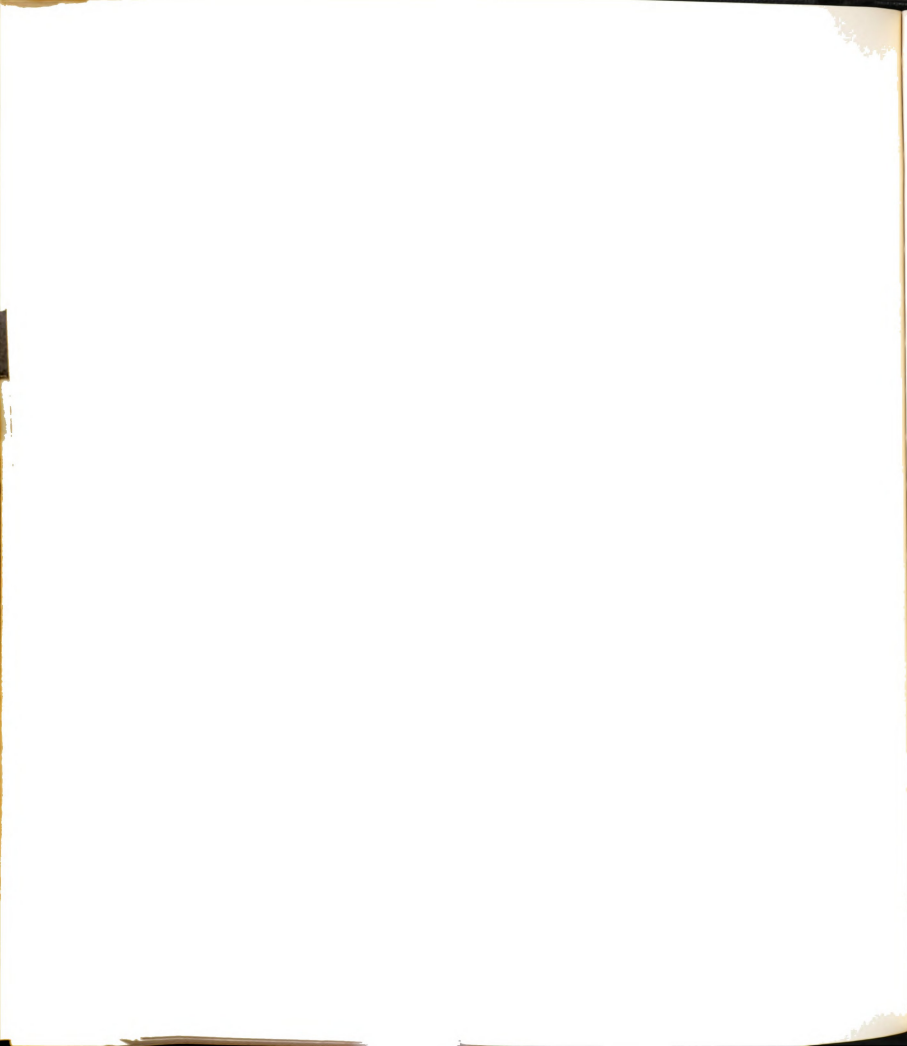
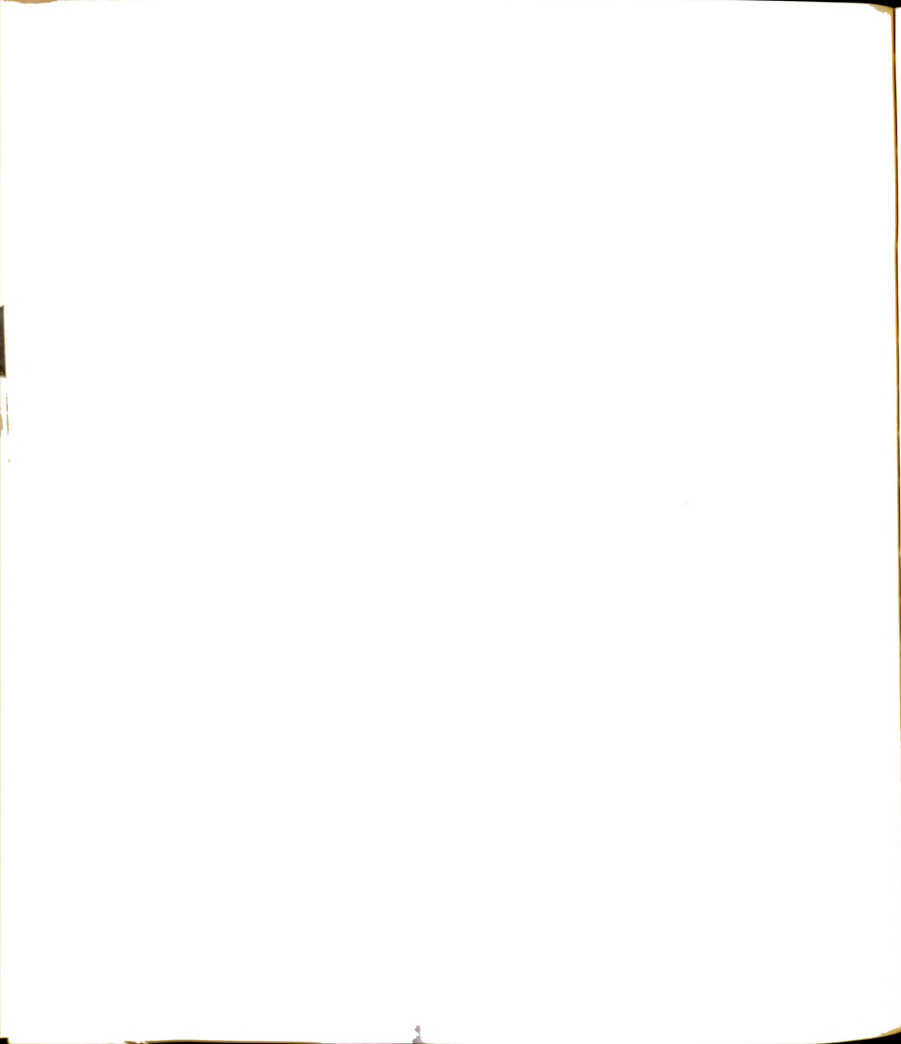


TABLE 31. --Means, standard deviations, F statistic, mean rankings and Duncan's Test results for six change variables for four occupational groups

Variable	Group	N	Mean	Standard Deviation	F	Sig. of F
Health Practices	SER	50	2.68	1.13	.70	.56
	E	41	2.71	.98		
	M	80	2.91	1.07		
	L	36	2.94	.79		
	TOTAL	207	2.82	1.02		
Ranking of Means: L(2.94) > M(2.91) > E(2.71) > SER(2.68)						
Wild Hunting Practices	SER	50	2.92	.60	.11	.95
	E	41	2.88	.56		
	M	80	2.91	.51		
	L	36	2.94	.47		
	TOTAL	207	2.91	.53		
Ranking of Means: L(2.94) > SER(2.92) > M(2.91) > E(2.88)						
Birth Control Practices	SER	50	1.98	.59	1.09	.36
	E	41	2.10	.70		
	M	80	1.86	.65		
	L	36	2.17	.77		
	TOTAL	207	1.99	.67		
Ranking of Means: L(2.17) > E(2.10) > SER(1.98) > M(1.86)						
Information	SER	50	3.04	.63	2.59	.05
	E	41	3.32	.57		
	M	80	3.44	.57		
	L	36	3.31	.62		
	TOTAL	207	3.29	.61		
Ranking of Means: M(3.44) > E(3.32) > L(3.31) > SER(3.04)						
Scheffe's Test Results: M > R; E > R; L > R						
Political Leadership	SER	50	2.92	.75	.97	.41
	E	41	3.10	.66		
	M	84	3.06	.87		
	L	36	2.83	.94		
	TOTAL	211	3.00	.82		
Ranking of Means: E(3.10) > M(3.06) > SER(2.92) > L(2.83)						
Life Span	SER	50	2.64	.56		>.05
	E	41	2.63	.54		
	M	84	2.56	.68		
	L	36	2.67	.68		
	TOTAL	211	2.61	.63		
Ranking of Means: L(2.67) > SER(2.64) > E(2.63) > M(2.56)						

Spec. Educ. Rehab. E = Education L = Labor



H-13: The SER group will have a higher mean score than other occupational groups in the amount of contact with mentally retarded and emotionally disturbed persons.

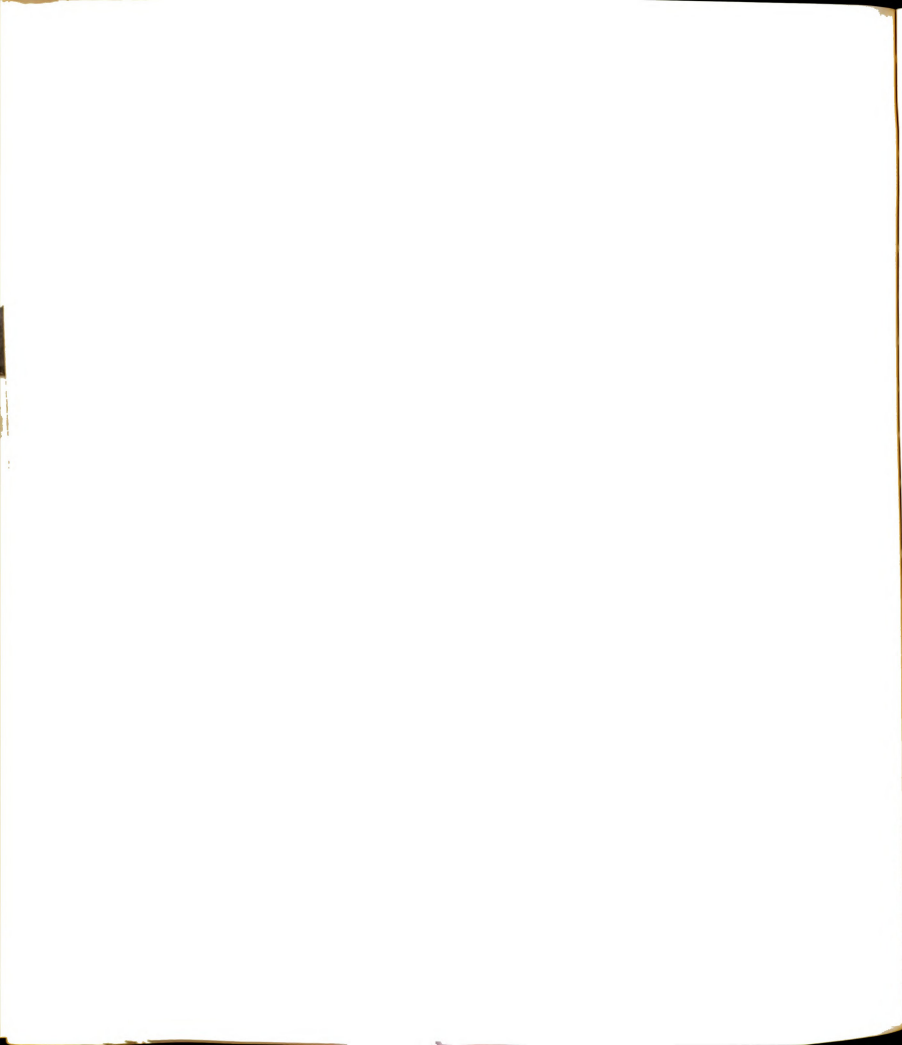
Table 32 indicates that the SER group had significantly higher mean scores than did the E, M, and L groups, as predicted, for amount of contact with mentally retarded and emotionally disturbed persons. The Duncan's Test results indicate that the E, M and L groups did not differ among themselves. H-13 was confirmed.

TABLE 32.--Means, standard deviations, F statistic, mean rankings, and Duncan's Test results related to contacts with mentally retarded and emotionally disturbed persons for four occupational groups

able	Group ¹	N	Mean	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
acts with	SER	50	4.46	1.81	89.71	.005
tally	E	40	1.57	1.10		
arded	M	84	1.65	1.06		
sons	L	36	1.67	1.17		
		210	2.31	1.64		
ng of Means: SER (4.46) >L(1.67) >M(1.65) >E(1.57)						
n's Test Results: R>E; R>M; R>L						

acts with	SER	50	2.16	1.59	10.65	.005
ionally	E	39	1.26	.85		
urbed	M	84	1.42	.71		
ons	L	36	1.28	.65		
		209	1.54	1.06		
ng of Means: SER(2.16) >M(1.42) >L(1.28) >E(1.26)						
u's Test Results: R>E; R>L; R>M						

Spec. Educ. Rehab. E = Education L = Labor Managers



differences between the
various occupational
groups on mean scores
on the value sub-scales

Three value sub-scales were considered in the testing of the hypotheses, namely, Benevolence, Leadership and Recognition. Table 33 contains a summary of the three values not considered in the testing of the hypotheses, those of Support, Conformity, and Independence. Gordon (1960) states that there is a positive relationship between Support and Recognition, Conformity and Benevolence, and between Independence and Leadership. According to the theoretical model, the SER group should have higher mean scores on Support, Recognition, Independence, and Leadership. Among the four occupational groups, there was no statistically significant difference in the mean scores.

differences as indicated by
scores on the value sub-scales

Table 34 contains a summary of the six value sub-scales, according to sex. There was a significant difference between the mean scores for males and females for the three values most related to the present study: Benevolence, Recognition, and Leadership. As hypothesized, males had higher mean scores

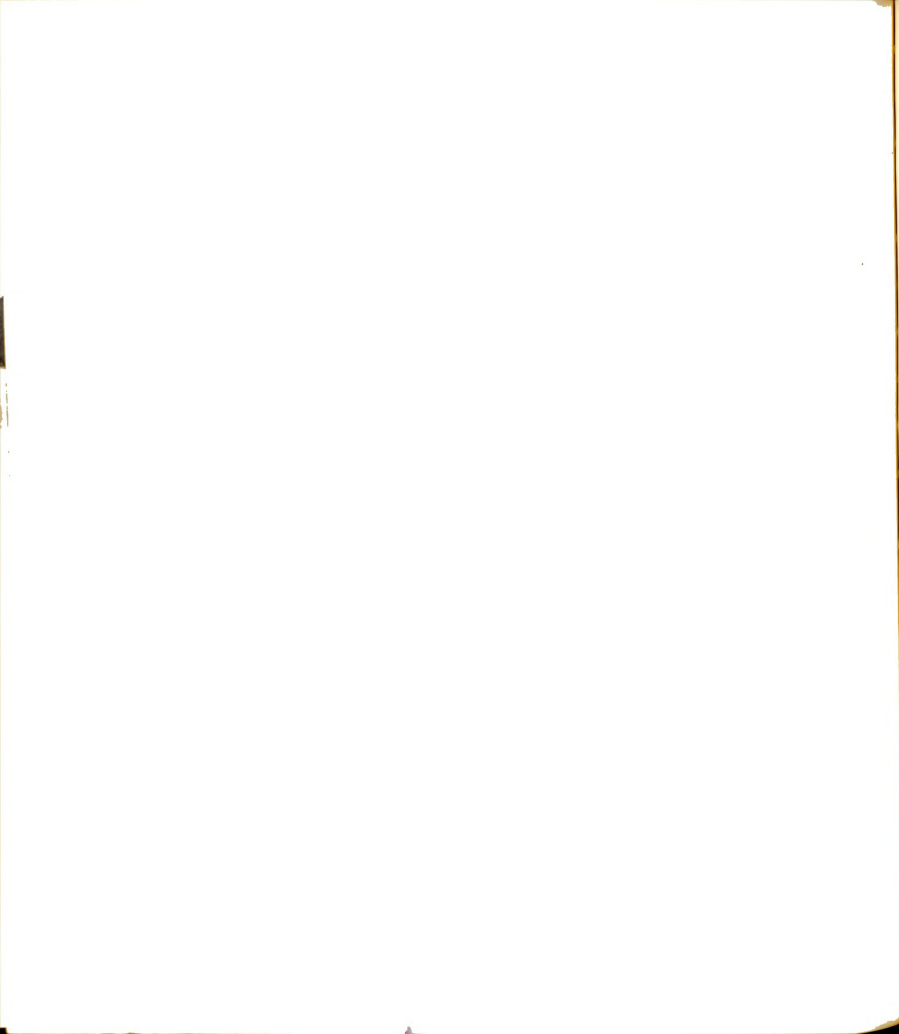


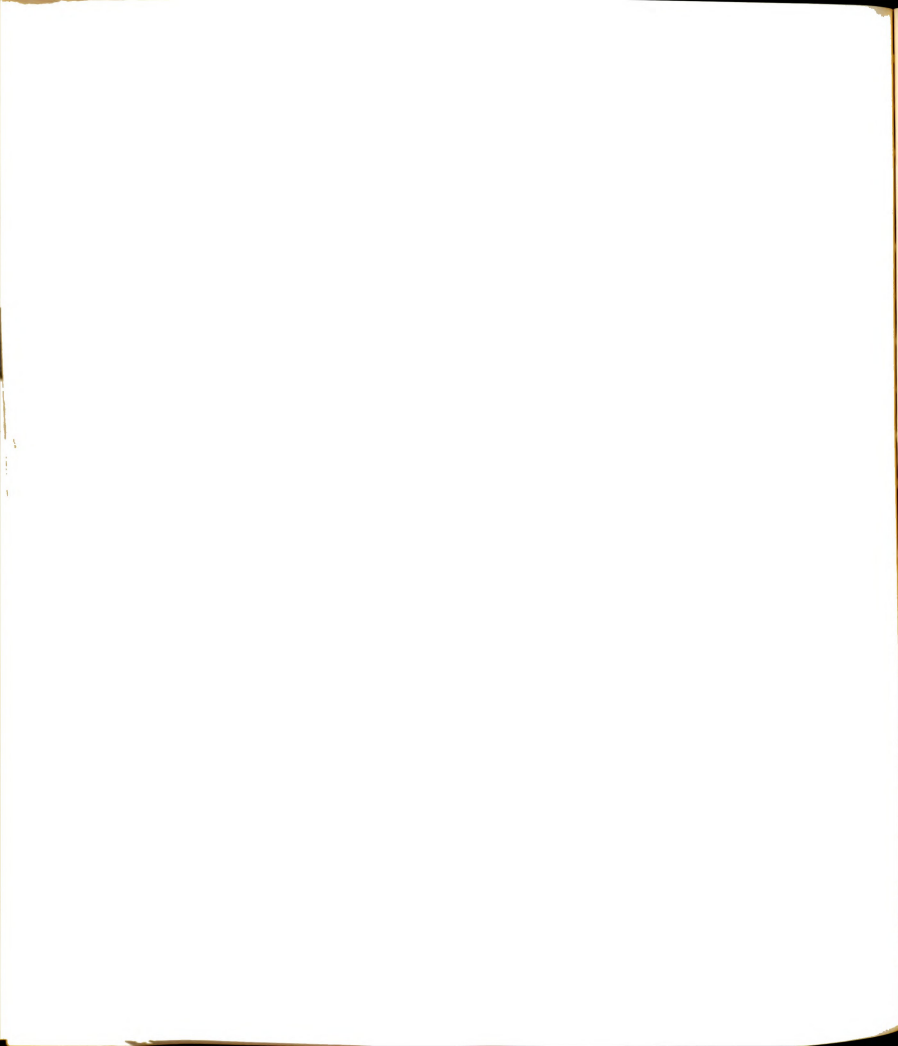
TABLE 33.--Comparison of mean differences, standard deviations, F statistic and mean rankings for three value variables, and four occupational categories

Variable	Group	N	Mean	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
Support value	SER	50	13.04	3.89	.21	.89
	E	41	13.10	3.86		
	M	84	12.84	4.14		
	L	36	13.00	3.66		
	TOTAL	211	12.97	3.92		
Ranking of Means: E(13.10) > S(13.04) > L(13.00) > M(12.84)						

Conformity value	SER	50	17.82	2.83	1.41	.24
	E	41	18.63	2.49		
	M	84	18.43	3.49		
	L	36	17.69	3.96		
	TOTAL	211	18.20	3.26		
Ranking of Means: E(18.63) > M(18.43) > S(17.82) > L(17.69)						

Independence value	SER	50	17.72	4.47	.31	.82
	E	41	18.34	5.19		
	M	84	16.84	4.61		
	L	36	17.53	6.42		
	TOTAL	211	17.46	5.04		
Ranking of Means: E(18.34) > S(17.72) > L(17.53) > M(16.84)						

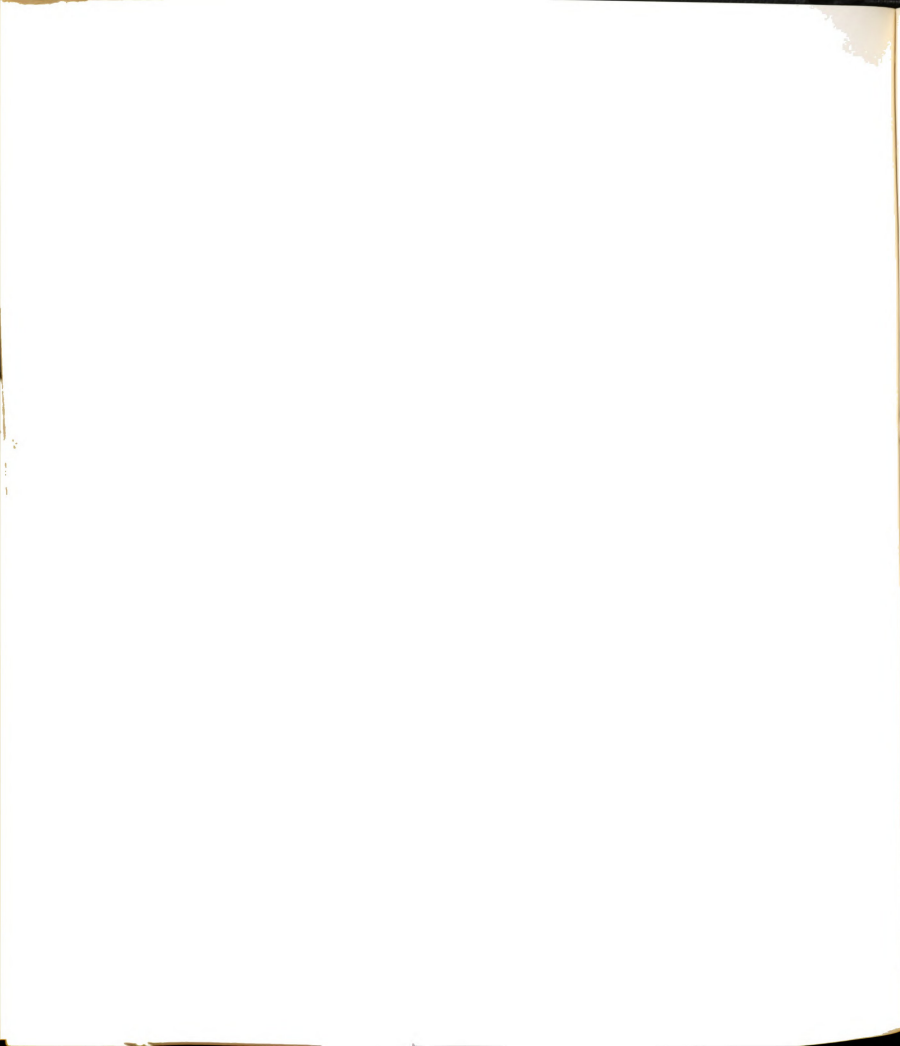
Spec. Educ. Rehab. E = Education M = Manager/
ative L = Labor



gnition, and Leadership and females had higher mean on Benevolence value. There were no significant differences between the sexes on mean scores related to values of Support, Conformity and Independence.

Data relating to Sex Differences between the mean value for nine separate studies are summarized in Table 35. Three values most related to the present study, Benevolence, Leadership and Recognition, show the most consistent sex differences when several divergent cultures are compared. The data in Table 35 indicates that the differences between the sexes found in the present study are generally consistent with findings in other studies, and in another study on Japan. The findings on Japanese studies may not be completely comparable to different translations of the Survey of Interpersonal Relations were used.

For each of the nine studies summarized in Table 35, females had higher scores on Benevolence value, and in most cases the differences were significant. The mean scores for Leadership value are higher for men in all studies, with all but the Colombian scores being significantly different. For the Japan-II sample, the differences were significant at the .005 level or less. For Recognition, males had higher scores in each study reported. Benevolence were significantly higher for the Indian teacher, Colombian, and Japan-II samples. These consistent findings

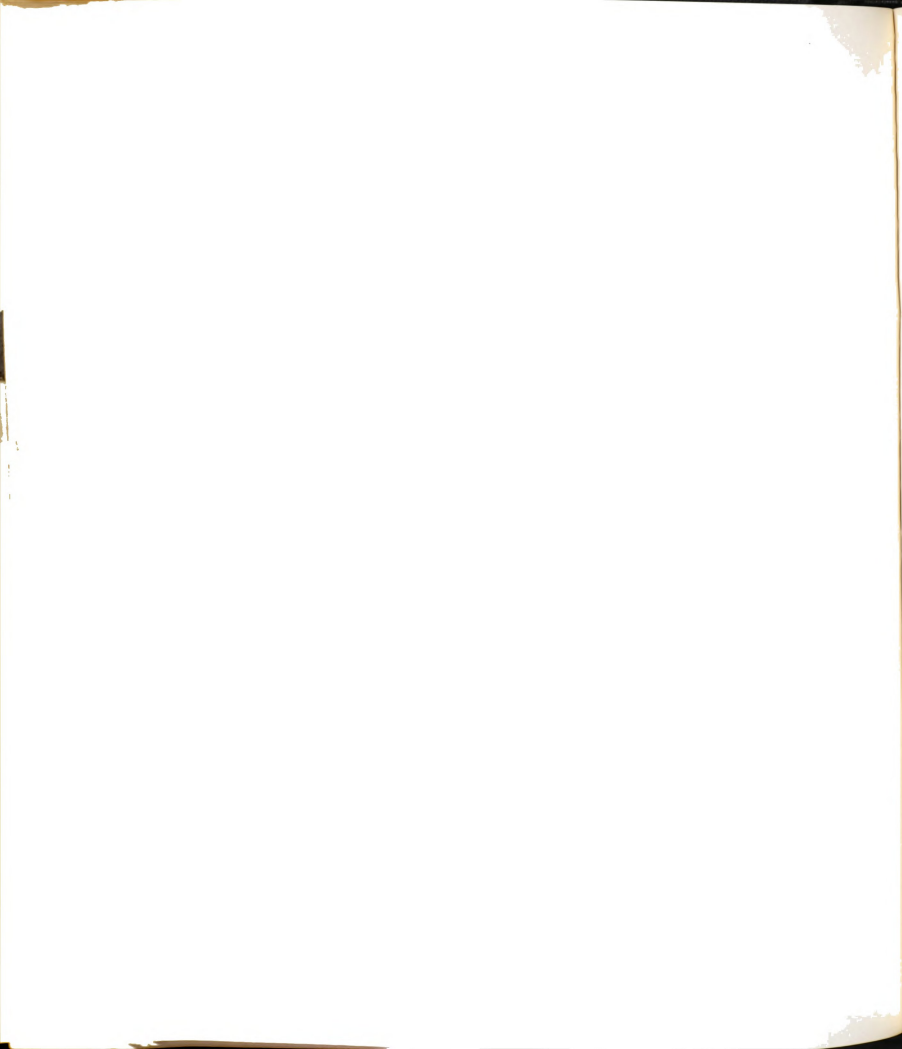


are remarkable when the assumed variations in
 tion, and the variations of the groups within
 s are considered. It appears that the values
 d by the Benevolence and Leadership scales reflect
 ental sex role differences in each of the cultures
 d.

in the current study, the scores for Independence,
 mity and Support show no significant differences
 n the sexes. However, for Independence value, the
 s scored higher than males, contrary to the findings
 studies. These scores may result from the high
 e of females who are engaged in educational and
 alitation professions (N=67) and may reflect
 ational rather than sex role differences. For
 rmity, the present findings are similar to those for
 countries, with females having higher scores. For
 rt, the present findings show the males to have a
 tly higher mean score, opposite from those reported
 most of the studies.

Differences between male
female mean scores
attitude variables

As indicated in Table 36, there were no significant sex
 erences between the mean scores on the three attitude
 ables. This finding is similar to that reported by
 sen (1966) for Colombia and Peru where the only
 ificant difference was for attitudes toward disabled



s with Colombian females having more positive attitudes
 ales. However, for the Japan data, the two-way
 is of variance F statistic indicates a significant
 ence among the groups on progressive attitudes,
 g sex constant.

34.--Comparison of mean differences, standard
 deviation, and F statistic in respect to six
 variables for males and females

Variable	Sex	N	Mean	Standard Deviation	<u>F</u>	Sig. of <u>F</u>
Tolerance	Male	113	18.26	4.76	4.49	.04
	Female	98	19.56	4.02		
	Total	211	18.87	4.47		

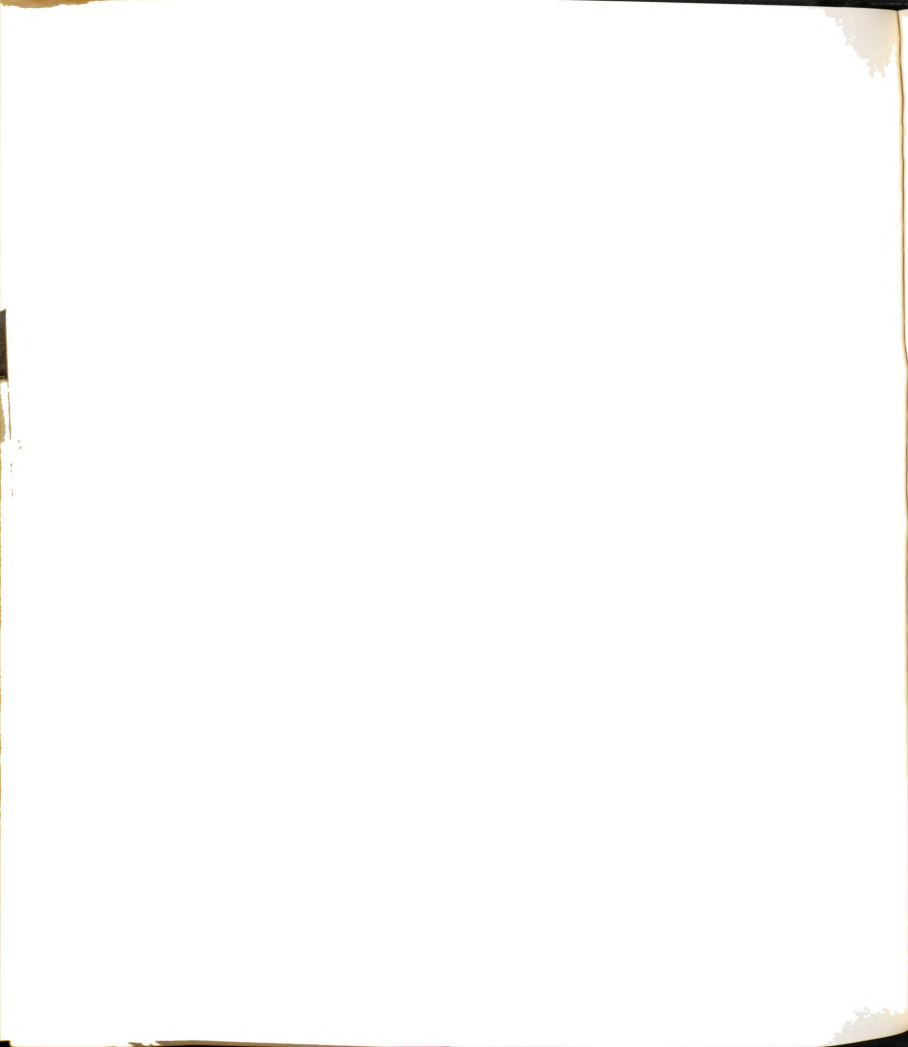
Definition	Male	113	8.11	3.00	3.99	.05
	Female	98	7.34	2.60		
	Total	211	7.75	2.84		

Port	Male	113	13.08	3.75	.20	.66
	Female	98	12.84	4.13		
	Total	211	12.97	3.92		

Firmity	Male	113	18.01	3.52	.83	.37
	Female	98	18.42	2.93		
	Total	211	18.20	3.26		

Dependence	Male	113	16.98	4.83	2.20	.14
	Female	98	18.01	5.24		
	Total	211	17.46	5.04		

Partnership	Male	113	12.98	5.30	13.54	.005
	Female	98	10.48	4.45		
	Total	211	11.82	5.07		



35.--Sex difference scores on various national groups on sub-scales of the Survey of Interpersonal Values (Gordon, 1963)

Group	E	R	S	C	I	L
High School ers ² F=28, N=53	-3.1**	0.0	-0.2	-3.2**	0.8	5.7**
General Adults ³ , F=212, N=425	-4.6**	1.3	-3.2**	-3.2**	1.2	8.2**
General Adults ³ , F=746, N=1821	-4.8**	0.3	-2.9**	-1.9**	3.1**	5.9**
n Teachers ² F=50, N=100	-3.6**	2.3**	0.3	-3.8**	-0.2	4.6**
Rican Sample ⁴ , F=144, N=267	-2.0**	0.6	-0.6	-0.6	1.4*	2.0**
bian Sample ⁵ , F=132, N=219	-1.7**	1.4***	0.1	0.1	0.1	0.5
ian Sample ⁵ , F=20, N=126	-3.3**	0.1	0.6	-0.4	-0.8	3.3*
ese College nts - I ² , F=285, N=473	-0.5	0.0	-1.4**	0.5	0.1	1.4**
a Sample - II ⁶ , F=98, N=211	-1.3*	0.8*	0.2	-0.4	-2.0	2.5***

Significant at the .05 level of confidence

Significant at the .01 level of confidence

Significant at the .005 level of confidence or less

sub-scales on the Survey of Interpersonal values are:

Benevolence S = Support I = Independence

Recognition C = Conformity L = Leadership

en from Gordon (SRA) Research Briefs Supplement (1963)

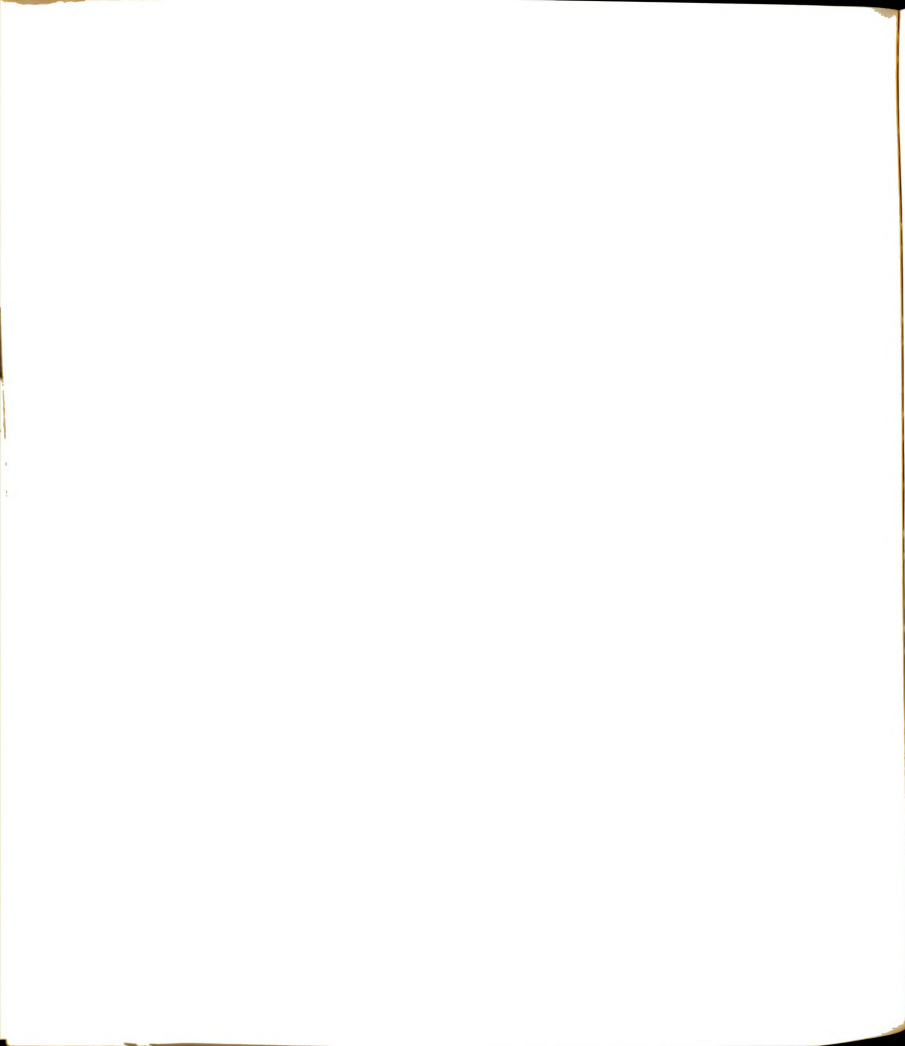
en from Gordon (SRA) Manual (1960)

en from Felty (1965)

en from Friesen (1966)

sna data (1967)

male higher than female; - = male lower than female

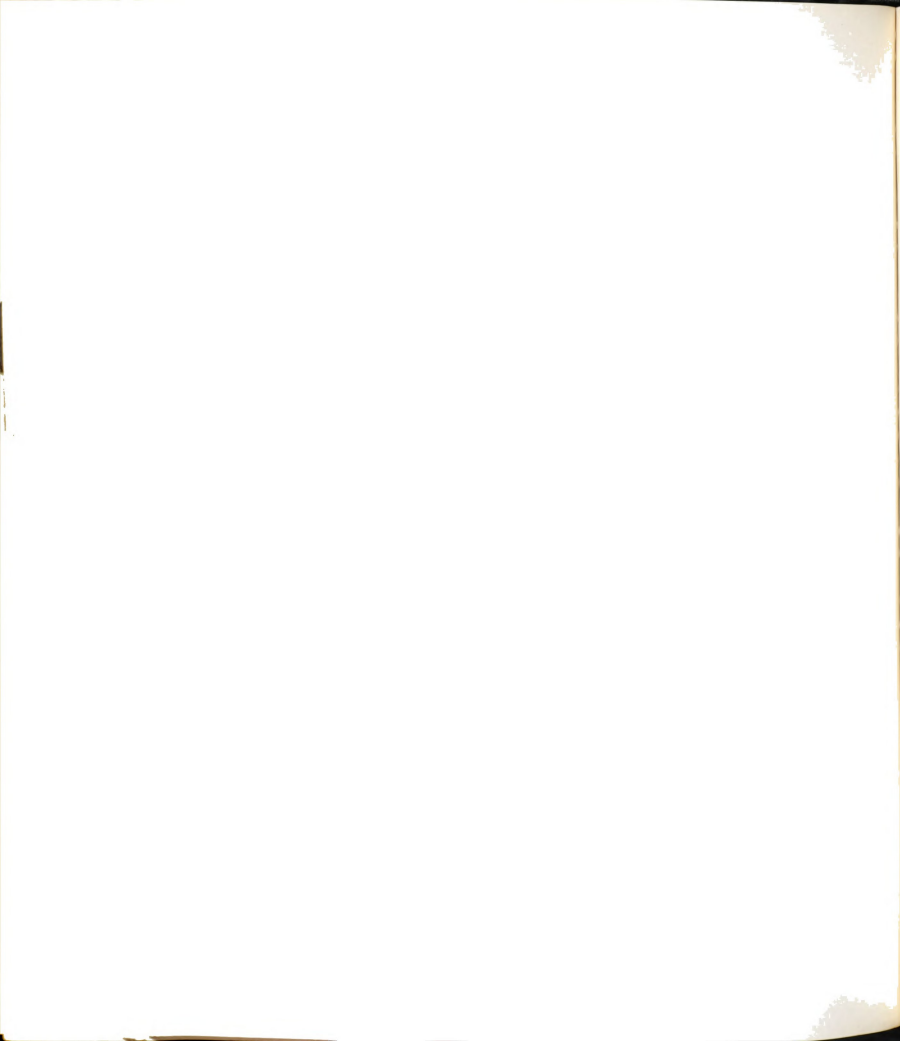


6.--Comparisons of mean differences, standard deviations, and F statistic in respect to three attitude variables for males and females

e	Sex	N	Mean	Standard Deviation	<u>F</u>		Sig. of <u>F</u>	
					1-way Sex	2-way Group	1-way Sex	2-way Group
es ed s	Male	113	50.65	4.40	.09	1.24	.76	.29
	Female	97	50.47					
	Total	210	50.57					

de	Male	113	27.33	3.38	.83	7.72	.37	.005
	Female	98	26.93	2.90				
	Total	211	27.14	3.16				

- de	Male	113	28.63	3.10	.04	.69	.82	.56
	Female	98	28.71	2.75				
	Total	211	28.67	2.94				



CHAPTER V

DISCUSSION, RECOMMENDATIONS, AND SUMMARY

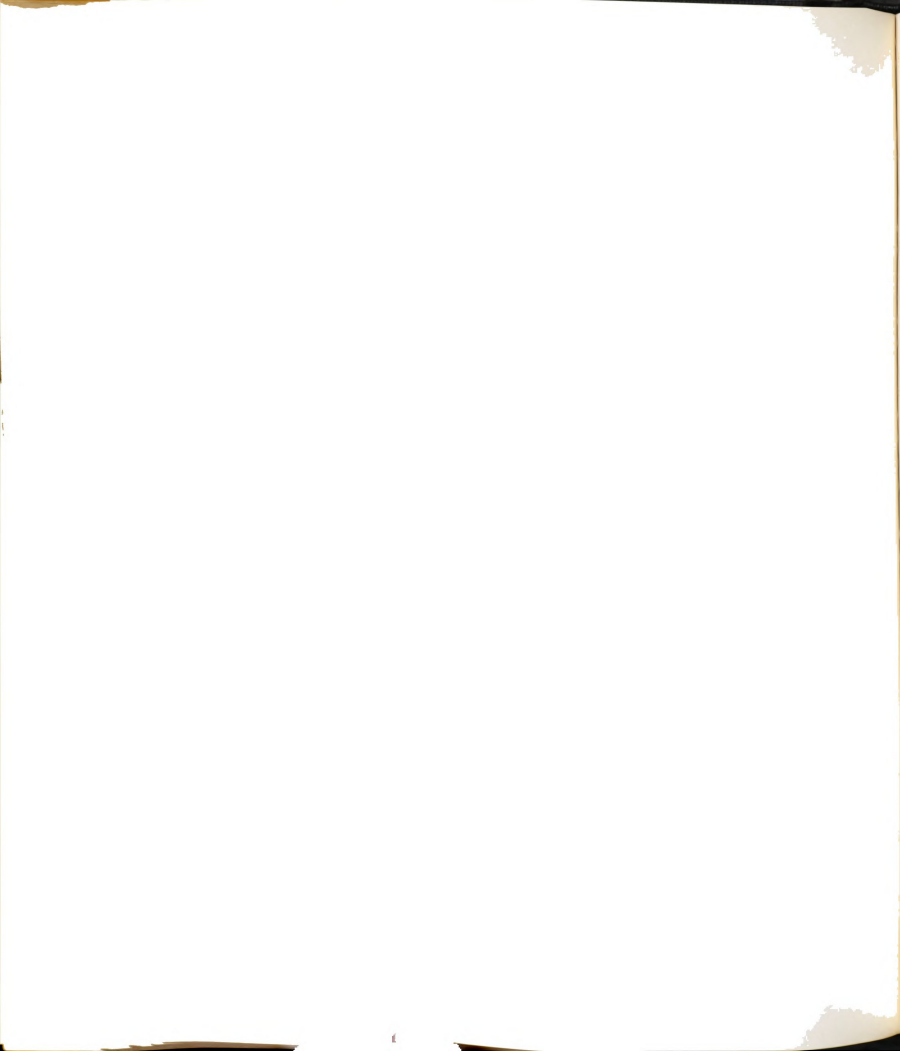
attempt will be made in this chapter to relate the results and implications of the research to the purposes of the study as outlined in Chapter I. These implications will be integrated with the theoretical model. To accomplish this task, the chapter is divided into four sections.

Part I, the findings will be discussed in relation to the hypotheses. Five categories of hypotheses will be presented.

Part II, theoretical and methodological issues will be discussed. The adequacy of the present theoretical and methodological procedures will be evaluated in light of future research efforts.

Part III, recommendations evolving from the conclusions of the preceding section will be formally presented. Recommendations will be related to sampling, instrumentation, and statistical analysis.

The final section, Part IV, will contain a concluding summary with a focus on the overall results and conclusions. It will state whether the primary purposes of the study have been accomplished and whether the hypotheses have been confirmed.

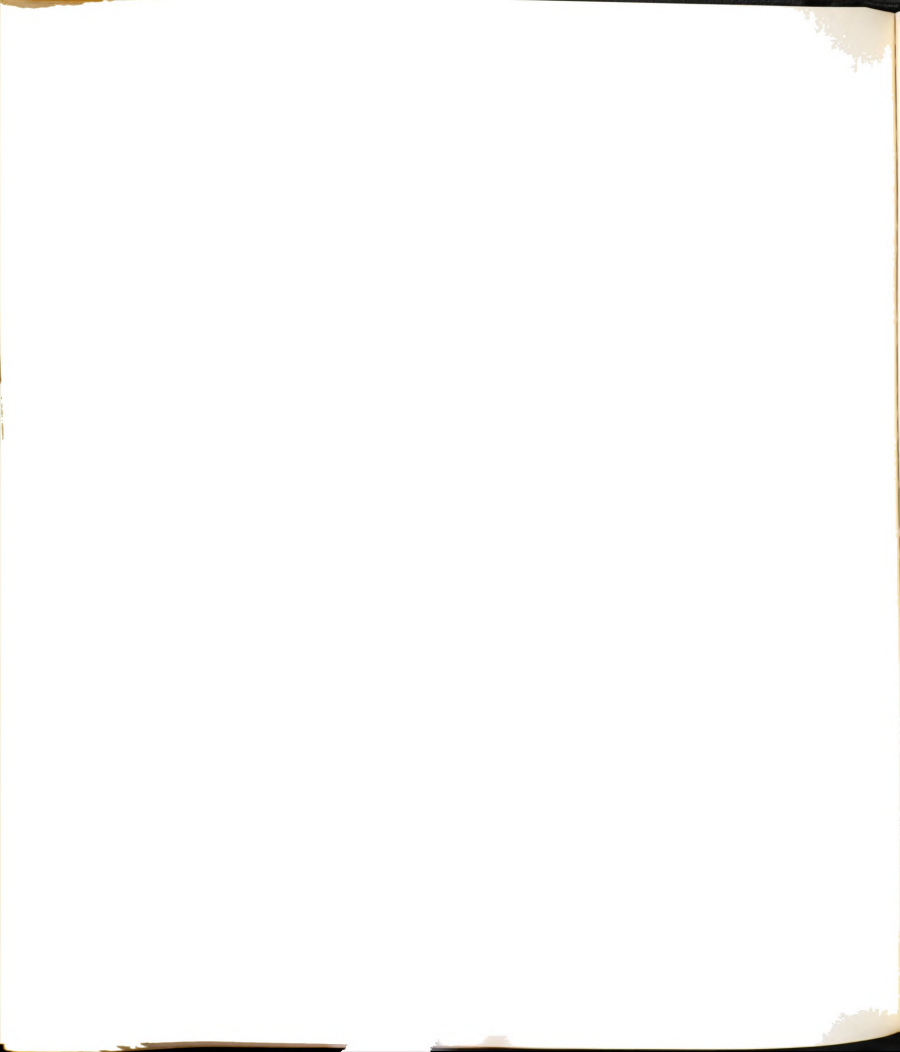


Part I: Discussion of Results

ere were thirteen hypotheses(41 sub-hypotheses)
ere classified into six major categories: (a) scale
ensity analysis in relation to attitudes; (b) contact
cy in relation to intensity; (c) contact variables
tion to attitudes; (d) value variables in relation
tudes; (e) change orientation variables in relation
tudes; and (f) group differences in relation to
attitude, change, and contact variables. Each major
y was examined by testing one or more hypotheses in
mpt to make inferences about sex or occupational
nces or about characteristics of the total sample.
ry of the 13 hypotheses, with an indication of
onfirmation or non-confirmation, are presented in
7, page 160.

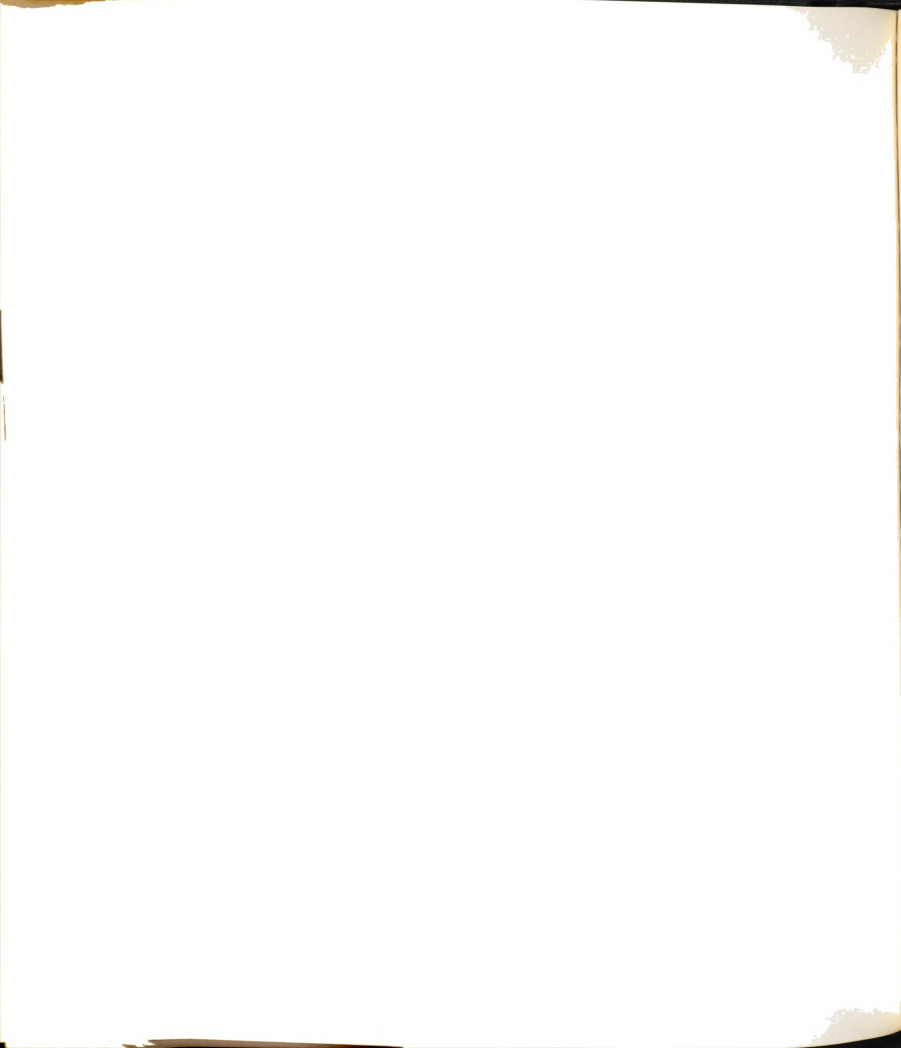
nd Intensity Analysis tion to Attitudes

noted on pages 118 and 119, scale and intensity
s was not attempted in the statistical analyses due
lications in computer programming. Although hypotheses
indicated such analysis would result in a U- or J-
curve when content was plotted on the abscissa and
ty on the ordinate. This analysis will be completed
ter date and reported with the more comprehensive
currently underway (see footnote on page 6).



7.--Summary of Hypotheses 1 through 13 indicating
confirmation or non-confirmation

	Confirmed	Not confirmed
ne dimensional scale for P, P-Ed, T-Ed ¹		X
- or J-shaped curve for intensity and content scores for HP, P-Ed, T-Ed		X
f high contact frequency, high intensity scores for P	X	
-Ed		X
-Ed		X
f high contact frequency s accompanied with alternative rewards, enjoyment, and ease of contact, then P, positive	X	
-Ed, high		X
-Ed, low		X
f Leadership high P, negative		X
-Ed, low		X
-Ed, high	X	
f Recognition high P, negative		X
-Ed, low		X
-Ed, high		X
f Benevolence high P, positive		X
-Ed, high		X
-Ed, low		X
omen higher than men on enevolence	X	
P		X
-Ed		X
f change orientation high P, positive		X
-Ed, high	X	
-Ed, low	X	



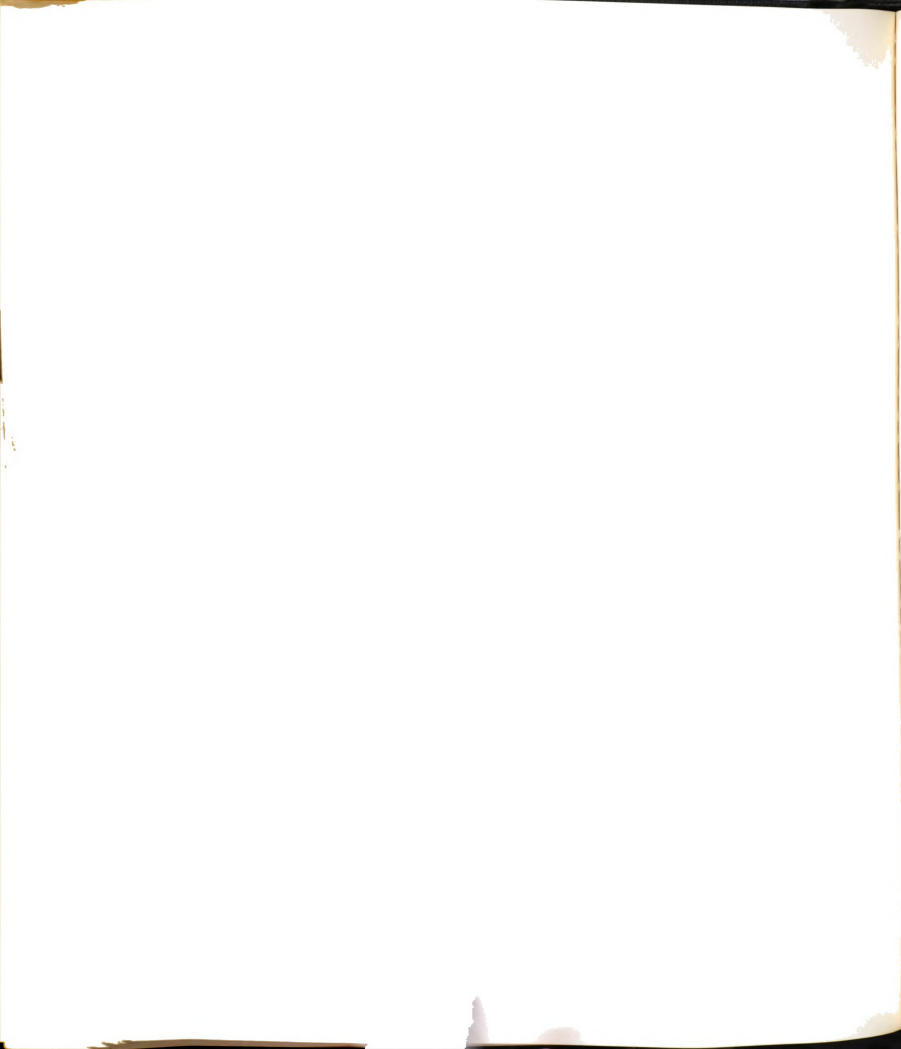
H-13: In contrast to other groups, SER will have scores in the direction indicated

HP, positive		X
Benevolence, higher	X	
Leadership, lower	X ²	
Recognition, lower	X ³	
P-Ed, higher		X
T-Ed, lower	X	
All change orientation variables higher:		
Health practices		X
Child rearing		X
Birth control		X
Automation		X
Political leadership		X
Self change		X
Higher contact with		
Mentally retarded	X	
Emotionally disturbed	X	

Attitudes toward disabled persons
 = Progressive attitudes toward education
 = Traditional attitudes toward education
 Formed for M group which has significantly higher score
 Formed for L group which has significantly higher score

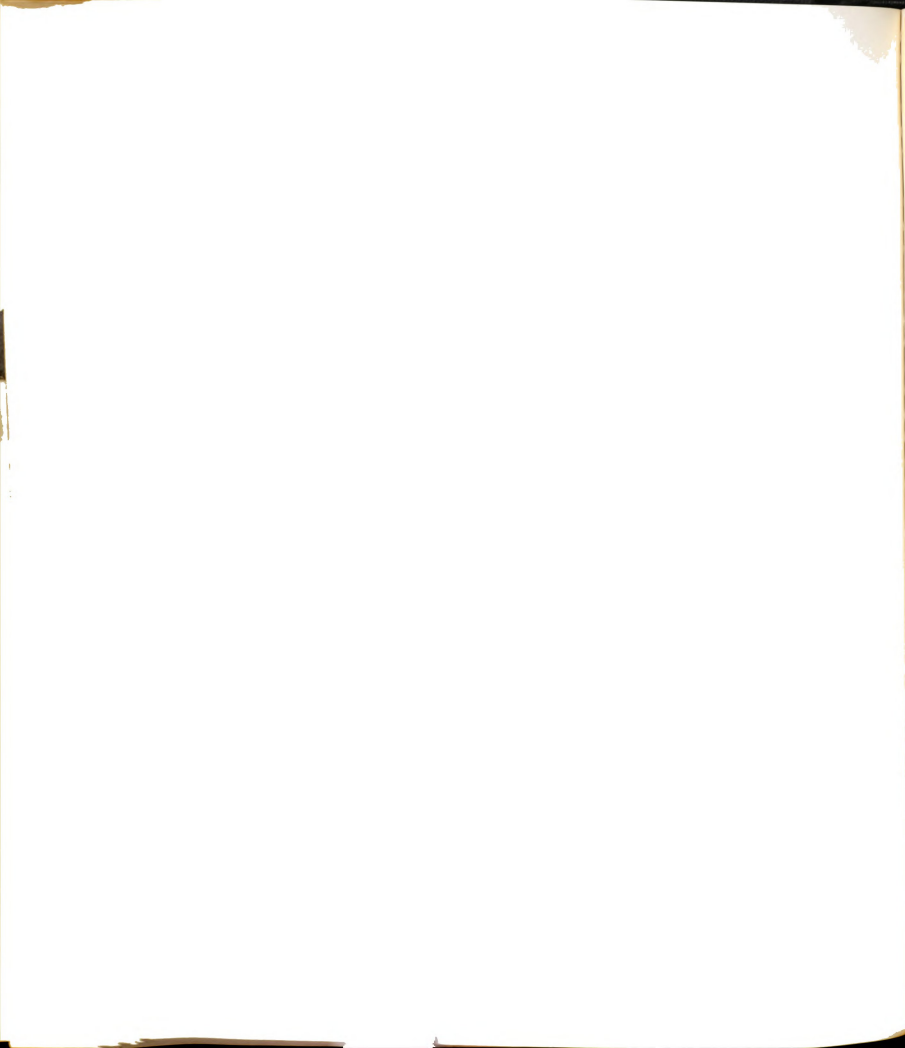
Contact Frequency Relation to Intensity

According to the theoretical model, contact frequency is directly related to intensity of attitudes regardless of the content of the attitude. The hypothesis was confirmed for attitudes toward handicapped persons but was not confirmed for either the progressive or the traditional attitudes toward education (H-3). As noted in Table 7, the relationship between amount of contact with disabled persons



ATDP scores is highly significant for the total sample. Further, the scores for progressive and traditional attitudes toward education, though not significant, are quite from the hypothesized direction (Tables 8, 9). Scores were examined according to sex, a significant relation between amount of contact and ATDP intensity was indicated for the female SER and male M groups. When examined according to occupational groups, amount of contact was significantly related to ATDP intensity scores in the SER, M, and L total groups (Table 10). The data did not reveal any significant relationships between contact frequency and progressive and traditional attitude scores when examined according to group or sex.

A possible explanation of these findings is that contact with handicapped persons sharpens perception of the issues involved whereas contact with education may be a more superficial type of contact. In this way, contact with handicapped persons may increase one's awareness of the implications of a handicap in an affective manner whereas increased contact with education may not indicate an increased affective involvement. The contact with handicapped persons may be more specific and concrete whereas the contact with education would tend to be more diffuse. This would very well be the case in Japan where the handicapped are secluded from the main stream of society as much as possible and where a physical disability is occasionally

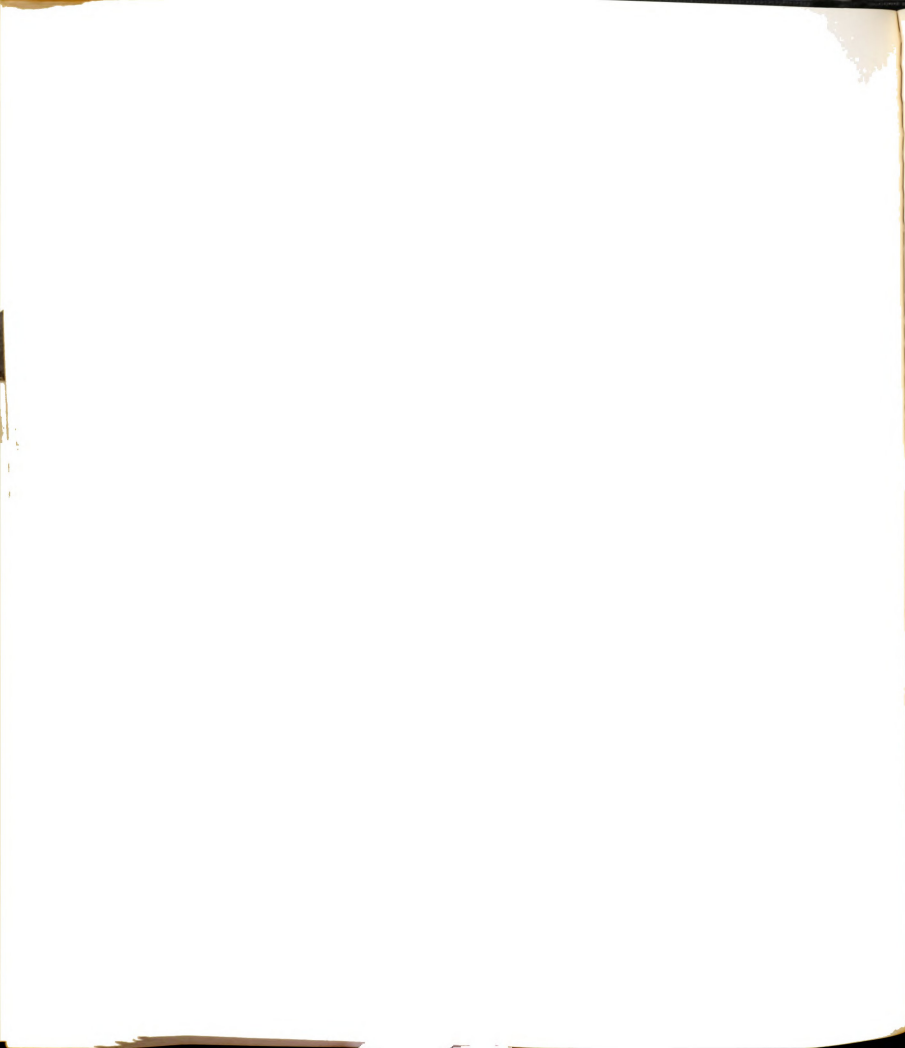


s a "pity" evoker (now relatively rare with increased standards) by alms-seekers in public places.

ne sex and occupational differences as indicated in 10 seem to support this explanation. When amount of t and attitude toward handicapped persons scores ompared, no significant correlation was found for group. It is known that E personnel had less contact andicapped persons and more contact with education (Table 39 Appendix A). This lack of correlation for group is more interesting when it is remembered that e E group is composed largely of females, and (b) that es for the total sample had slightly higher ATDP scores males. These inferences may reasonably lead to the ctive conclusion that lack of significant correlations en amount of contact with education and educational ude intensity scores may be the function of a less tive (and more cognitive) type of contact with education is possible in the case of contact with handicapped ns. Therefore, increased intensity of response es evident in responses on the ATDP scale for those g more contact with handicapped persons. On the e hand a more cognitive contact with education may be red to inhibit increased intensity scores.

act Variables elation to Attitudes

In hypothesis 4, favorable attitudes are postulated eing dependent on high frequency of contact when the



c is associated with other rewarding opportunities, ent of contact, and ease of contact. The multiple ation between the combined contact variables ctors) and attitudes toward handicapped persons rion) was significant at the .01 level of significance e total sample. The partial correlations indicate njoyment of contact was a significant contributor to ltipple correlation. As noted in the preceding n, an affective rather than a cognitive factor may rative in the determination of positive attitudes disability.

These findings are comparable to those found in r studies. Siller and Chipman (1964) found a ation between amount of contact and attitudes for a e composed primarily of high school and college ts. Genskow and Maglione (1965) found scores for ts at two mid-west universities to be significantly positive on the ATDP scale when contact was more ent, and under favorable conditions. LeCompte and pte (1966), on the other hand, did not find a fificant relationship between amount of contact and scores for Turkish college students. The LeCompte and pte finding may be a function of the sample selection ege students) who may have had limited contact with disability and education. Friesen (1966) found a fificant relationship between amount of contact and ATDP



scores for a sample of Colombian and Peruvian respondents occupationally similar to those of the present study.

The multiple and partial correlations between the combined contact variables and progressive and traditional attitudes toward education indicate a lack of significant relationships. H-4b was not confirmed. These data may indicate that the contact variables selected for this analysis do not make a differential contribution to attitudes toward education, but that some variables, especially enjoyment of contact, do make a contribution to positive attitude toward physical disability.

Value Variables in Relation to Attitudes

It has been suggested that values are instrumental in determining and maintaining attitudes (see page 75ff). In the analysis of values, the major concern focused on a dichotomy of asset and comparative values (p. 83). On the basis of face validity and inter-correlations of the Survey of Interpersonal Values (SIV) and Edwards Personal Preference Schedule, Benevolence value was judged to be an adequate operationalization of asset value, and Recognition Leadership value were judged to be an operationalization of comparative value.

Three other SIV values (Conformity, Independence, and Obedience), though not related directly to the hypotheses of the study, were included in the analysis. According to

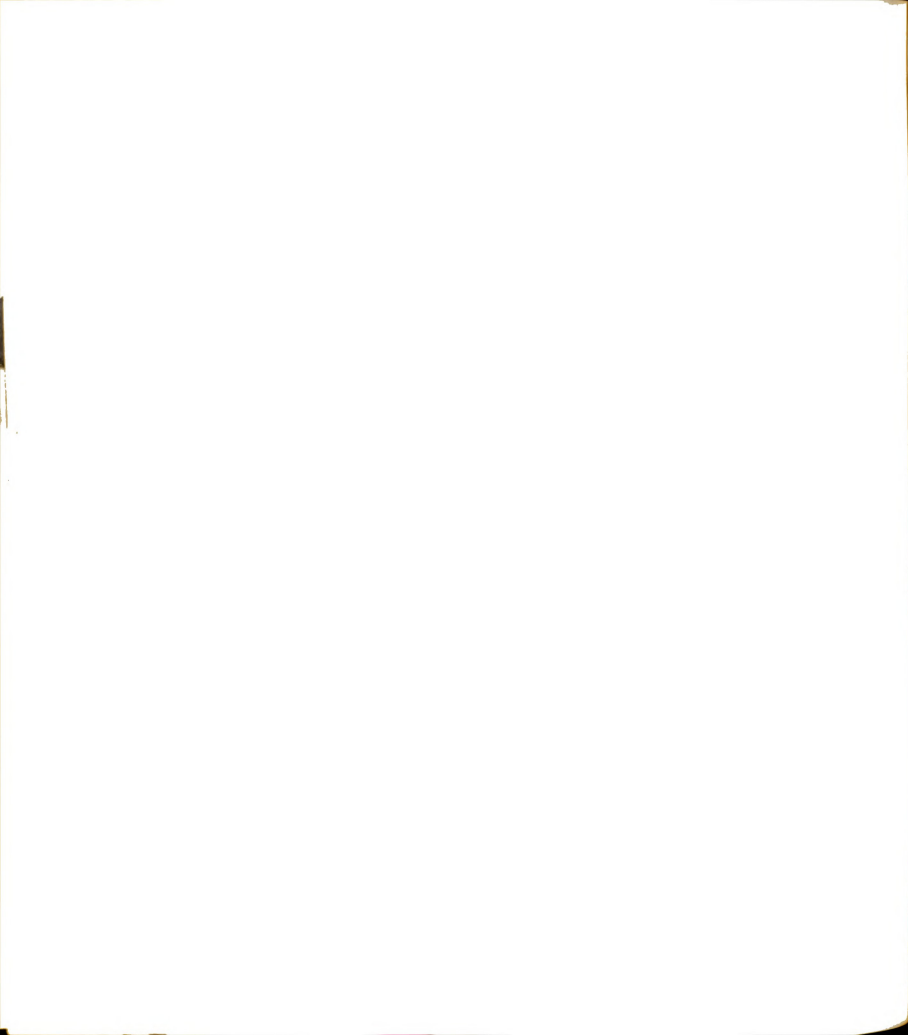


Gordon (1960), Support value is positively correlated with Recognition (.40), Conformity is correlated with Benevolence (.39), and Independence is correlated with Leadership (.06).

Twelve sub-hypotheses were specifically related to values. Two were confirmed; data for eight were in the hypothesized direction; and two were opposite from the hypothesized direction.

The sub-hypotheses which were confirmed by the data are related to Leadership and Benevolence scores (5b, 7c). Persons having high Leadership scores also scored high on additional attitudes toward education (Table 14). Women are hypothesized to have higher scores than men on Benevolence value, on attitudes toward disabled persons, and on progressive attitudes toward education. The data (Table 21) reveals a significantly higher score for females than for males on Benevolence value only. Friesen (1966) reported a significantly higher mean score for female respondents in Colombia and Peru on Benevolence value.

As indicated by the zero-order correlations (Tables 22 and 23), Conformity, Recognition, and Independence values do not appear to be satisfactory predictors of either attitudes toward disabled persons or attitudes toward education. For example, the negative correlations between attitudes toward education (both progressive and traditional) and Support value may render the interpretation of results

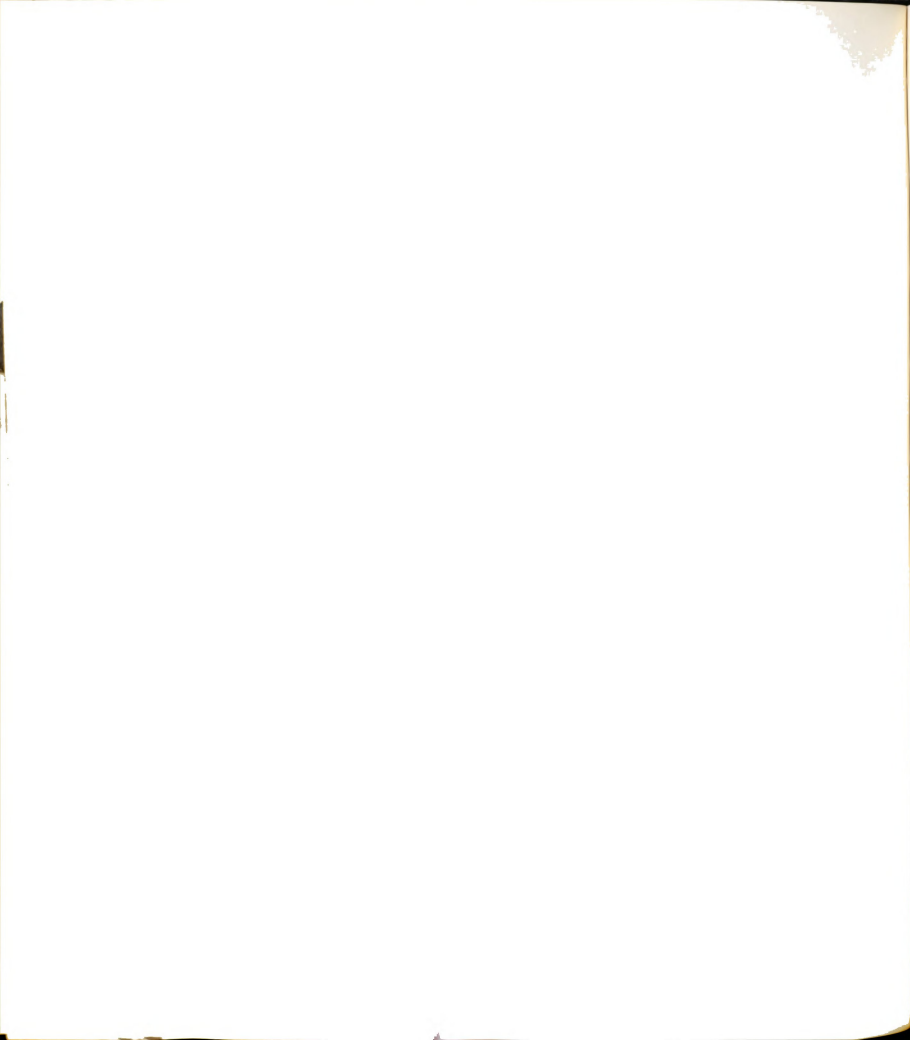


confounded. Friesen (1966) reported a similar finding between both progressive and traditional attitudes and leadership value for a Peruvian sample. However, Kerlinger indicates that Traditionalism and Progressivism are not merely opposites but are distinct in their own right. Theoretically then, a person may have both traditional and progressive attitudes. If this is the case, the terminology could be changed since traditionalism and progressivism, commonly used, indicate opposite poles on a single continuum.

Although there is a confounding of interpretation of the value-attitude relationship, the results suggest that leadership, Recognition, and Benevolence values may be predictors of attitudes. Ten of the twelve sub-hypotheses were either confirmed or the scores were in the hypothesized direction. This would suggest that a larger, more heterogeneous, randomized sample may show these values to be more discriminatory than the present data indicates.

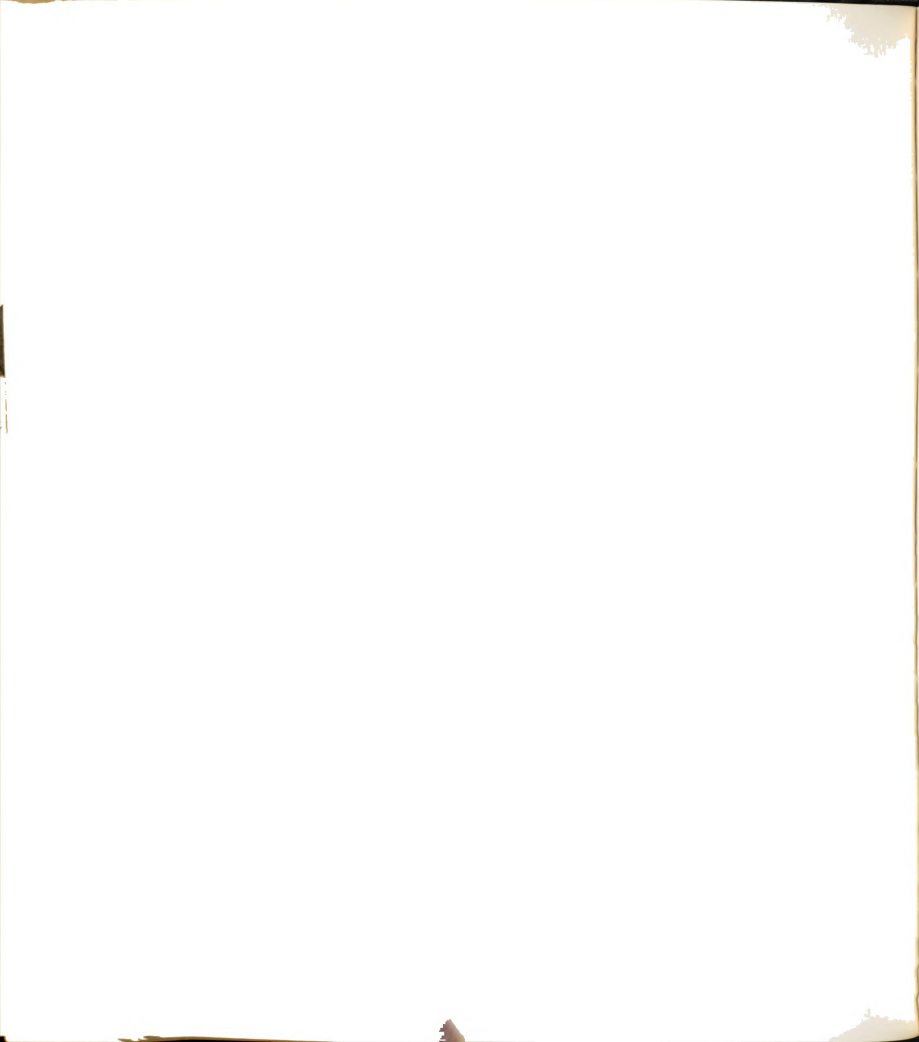
Change Orientation Variables Relation to Attitudes

The rationale for this hypothesis is that the SER and other groups would score relatively higher on the change orientation variables than other occupational groups. It was also hypothesized that a high degree of change orientation would result in positive attitudes toward changed persons, high scores on progressive attitudes



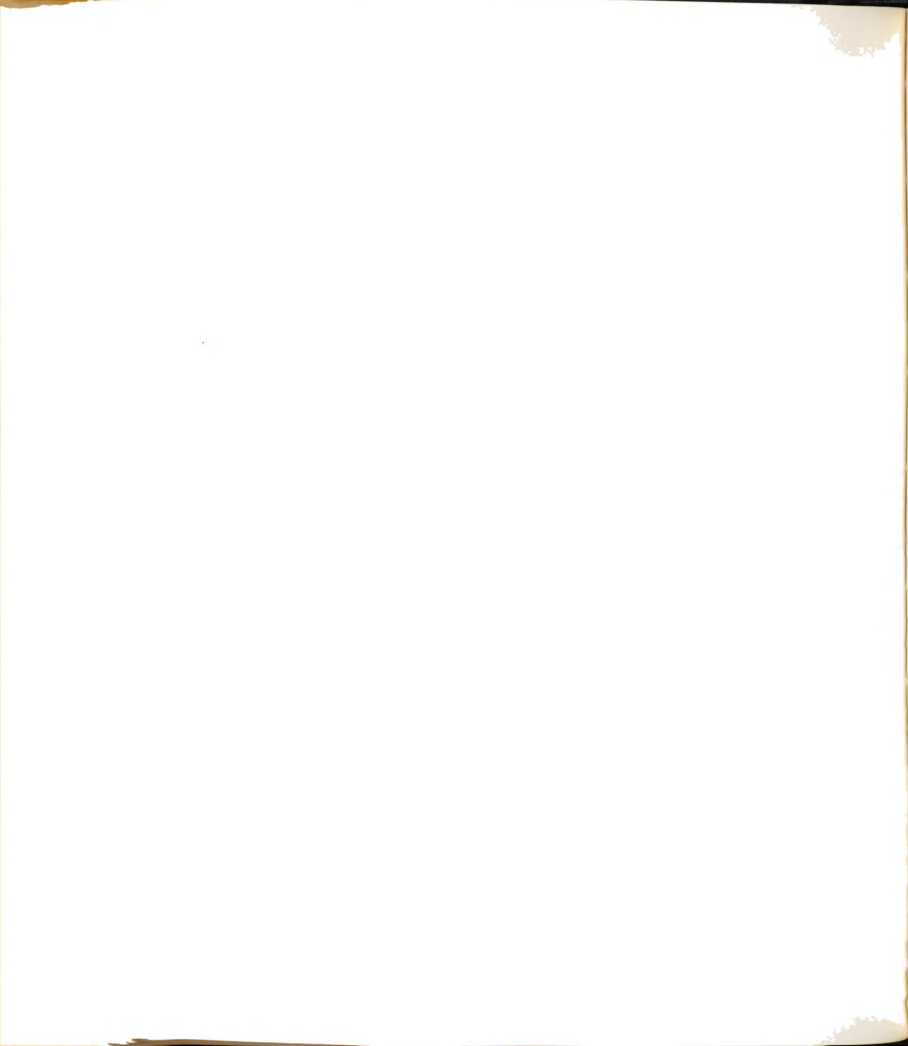
education, and low scores on traditional attitudes education. In contrast with the SER and E groups suggested that the M and L groups would have the scores, reflecting a resistance to change. High were conceived as representing a departure from the quo and a receptivity to new ideas. Correlational is and analysis of variance were used to test this thesis relating to six change variables: health ces, child rearing practices, birth control practices, tion, political leadership, and self change. The onnaire items relating to these variables are listed e 146 and in Appendix B-2.

hough the multiple correlation between the combined orientation variables and attitudes toward disabled s is not statistically significant, a salient relation- ay be inferred from the multiple correlation of .11 24). To be significant at the .05 level, a ation coefficient of .14 is needed. When the change les are partialled out, automation and political ship are most contributory to the multiple correlation. th of these variables, the E and M groups have higher than the SER and L groups (Table 31). This would t that some kind of relationship exists between tion and political leadership change orientation les and attitudes toward disabled persons but further igation is needed to warrant a positive interpretation.



It is remembered that Japan has been described as a "modern" or progressive country, and that great changes have taken place in industry and politics in the last decade, a correlation between change in these areas and a positive attitude toward disabled persons appears to be a reasonable interpretation of the data.

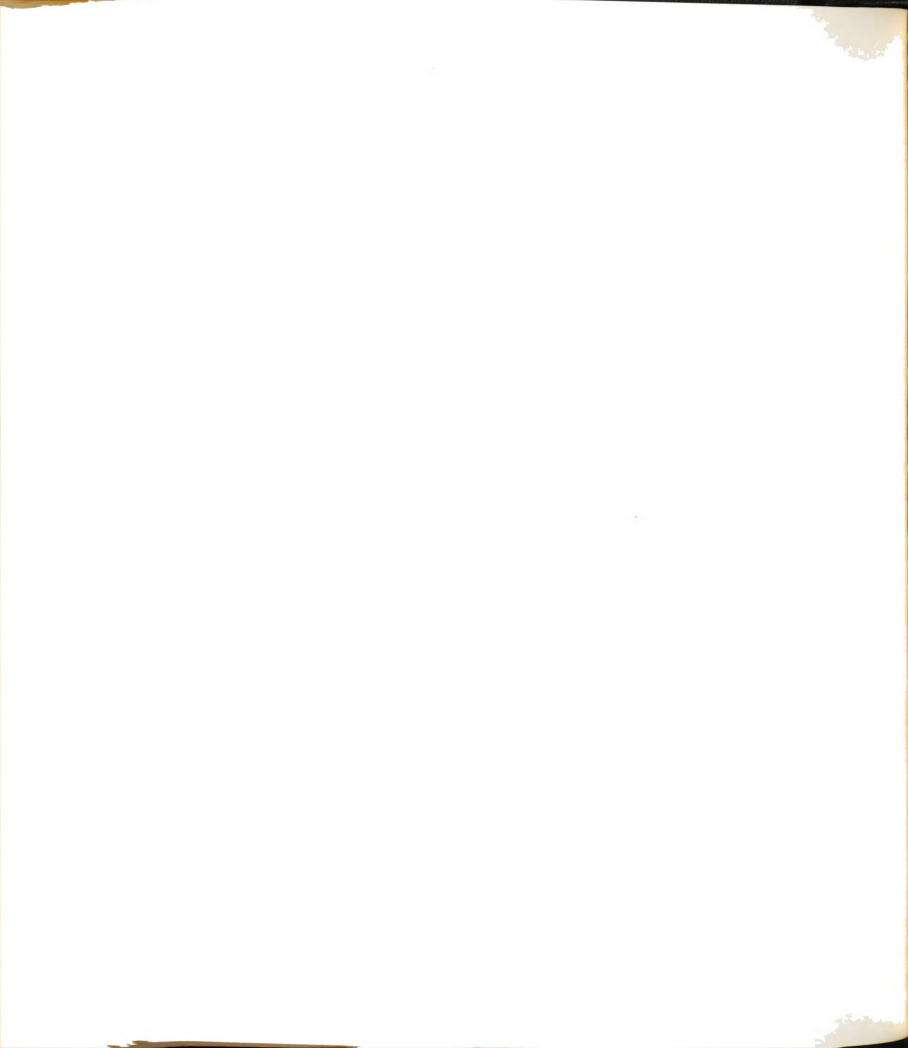
On the other hand, a significant multiple correlation was indicated for the relationship between change orientation variables and both traditional and progressive attitudes toward education. When the six change variables are entered into the equation, health practices had a significant incremental contribution to the multiple correlation related to traditional attitudes. As might be expected, the change variable shows salient negative relationship with the multiple correlation though not quite reaching the 5% level of significance. Automation makes an unexpected positive contribution to the multiple correlation between change orientation variables and traditional attitudes toward education. However, the mean scores for automation for the total sample was 3.20, indicating a "moderately progressive" orientation. Since Japan is highly industrialized (for instance, producing more ships annually than any other country), automation may not be an indicator of progressive attitudes but one related primarily to economic modernization. The findings cited here support the hypothesis that automation may be considered to be indicative of current Japanese attitudes and practice.



the relationship between change orientation variables and progressive attitudes toward education indicates child rearing practices make a highly significant differential contribution to the multiple correlation. It seems reasonable to assume that a person's acceptance of changing patterns has a direct relationship to new (i.e., progressive) attitudes in other areas, especially in education. It must be remembered that the traditional Japanese family was a pyramid type with the father at the apex of status and authority, and personal interests were always sacrificed for the family welfare. The three most significant influences of Japanese life have been the family system, the social system and the educational system (SCAP, 1952). The influence of each may be assumed to be interrelated with the others. Article 24 of the new Constitution guarantees "individual dignity and essential equality of the sexes" in matters pertaining to marriage and the family. It may be inferred then, that in contemporary Japan and perhaps throughout Japan, attitudes related to child rearing are the most cogent indicators of a progressive, change orientation to life situations.

Differences in Relation to Attitude, Change Orientation, Contact Variables

Hypotheses 9 to 13 predict that the SER group is different from the other occupational groups in the following ways:



Lower (more positive) attitudes toward disabled persons score.

Higher Benevolence value score.

Lower Leadership value score.

Lower Recognition value score.

Higher progressive attitudes toward education score.

Lower traditional attitudes toward education score.

Higher change orientation variable scores.

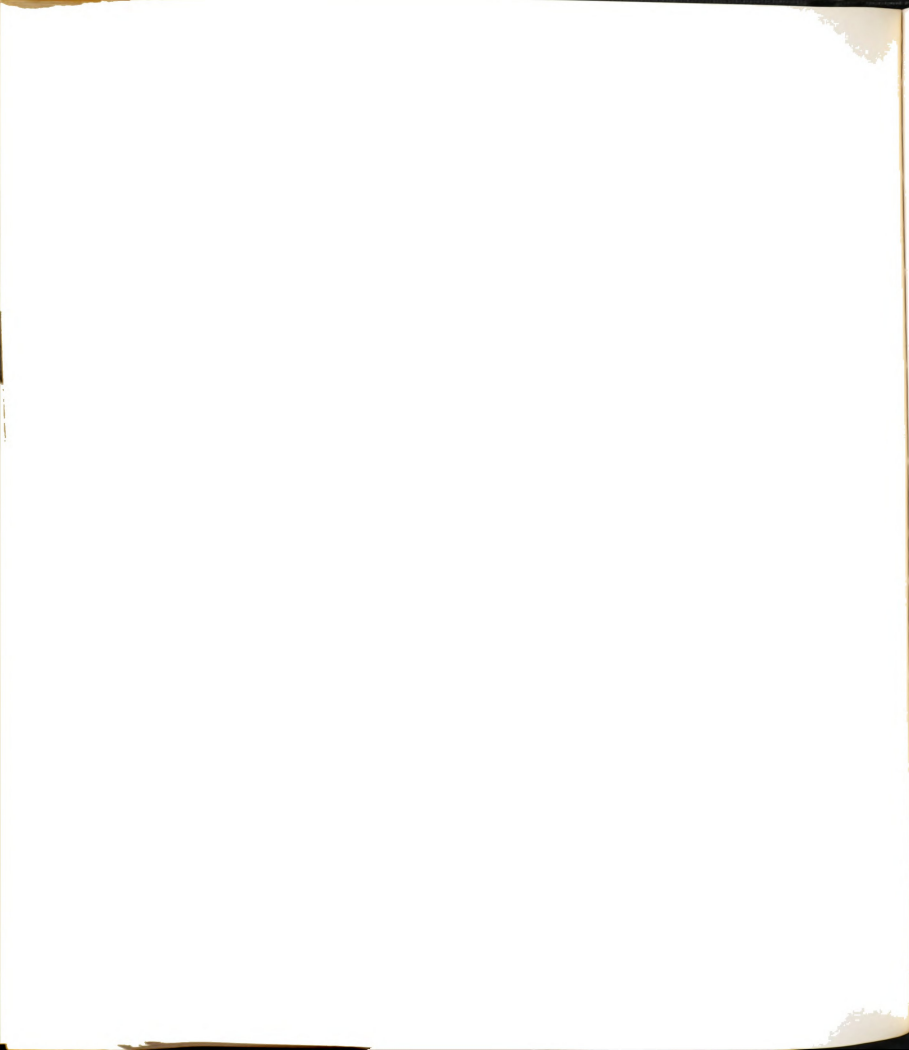
Higher amount of contact with mentally retarded persons.

Higher amount of contact with emotionally disturbed persons.

Six of the sub-hypotheses listed above were confirmed or partially confirmed by the study (Table 37). Those related to Benevolence value, traditional attitudes toward education, contact with the mentally retarded, and contact with the emotionally disturbed were confirmed while Recognition, and Leadership values were partially confirmed.

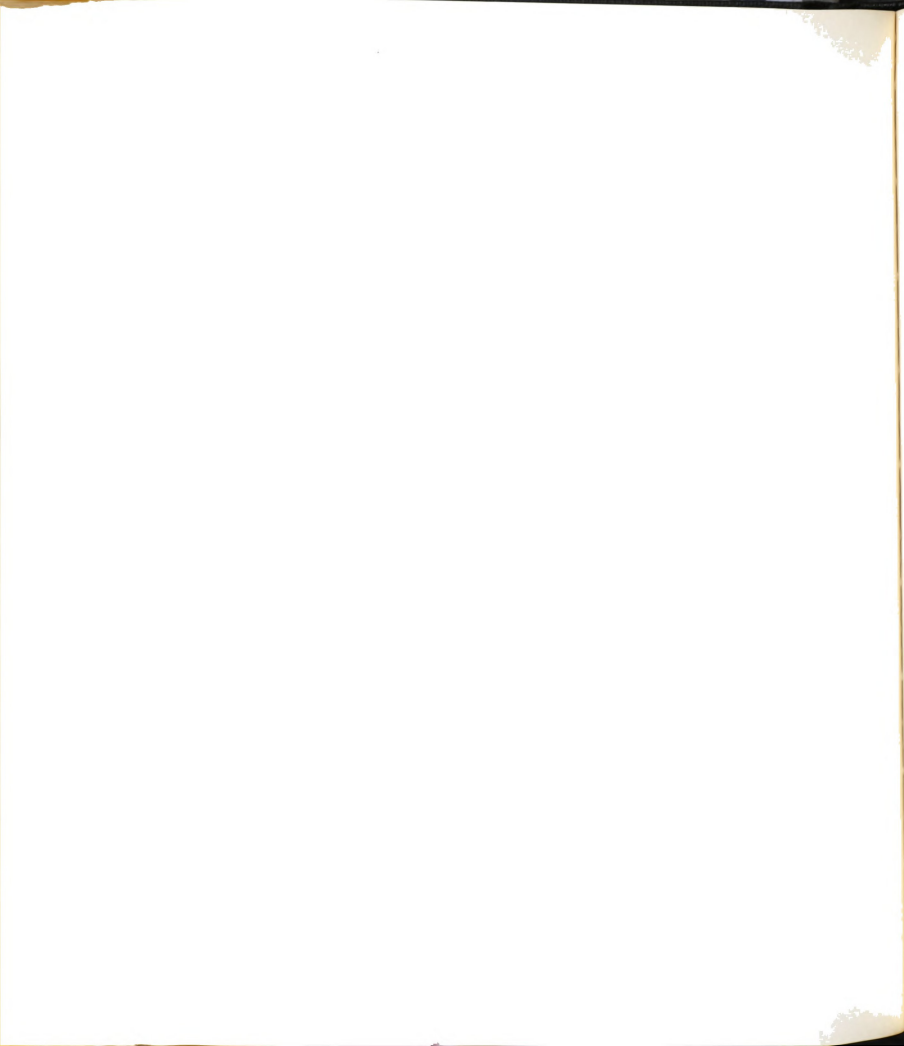
The SER group had the lowest (most positive) scores on the four groups on the ATDP scale (Table 25) as hypothesized. The scores were not statistically different, however.

Three value scores were of primary importance in the study: Benevolence, Leadership and Recognition. The SER group had the highest Benevolence scores which were different from the other occupational group scores at a highly significant level (.005 or less). The M group



the highest Leadership scores which is consistent with the theoretical model. However, the E group had the highest Leadership score rather than the SER group as hypothesized. The SER group mean score for Leadership is higher than those for the L and M groups but it is not significantly different from only the M group mean score (Table 27). For Recognition, the SER group attained the highest mean score which was significantly different from the L group only (Table 28). Although the scores are not significantly different for all groups on the three value scales, the scores were in the direction of the hypothesis except for one score (the E group mean score for Leadership was lower than the SER group mean score). It is inferred that the SER group is different from the other groups in relation to these variables in the hypothesized direction.

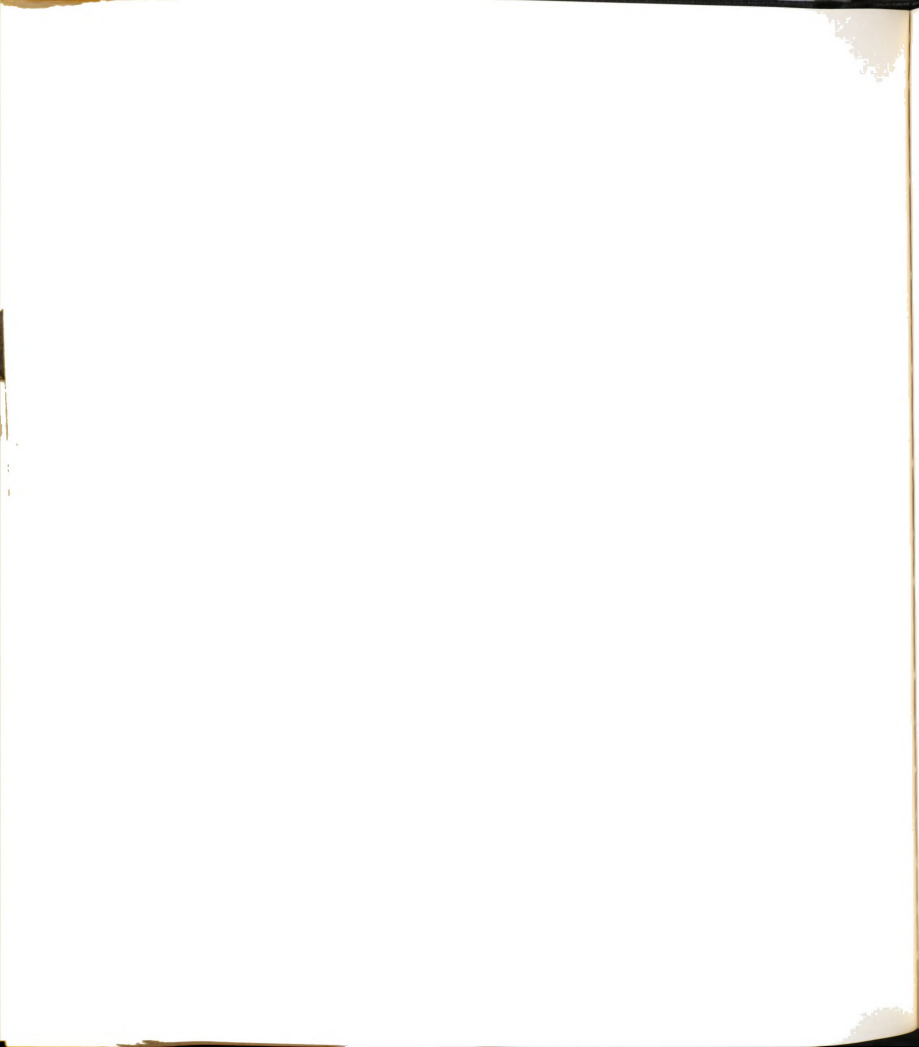
The hypothesis concerning the educational scales was partially confirmed for traditional attitudes toward education but not confirmed for progressive attitudes toward education (Tables 29, 30). The SER mean score on progressive attitudes was lower than the mean score for the total sample. This finding for progressive attitudes, opposite from that hypothesized, makes interpretation difficult in the light of the highly significant difference (.005 or less) in group mean scores for attitudes toward traditional education. A similar confounding of results was noted for the zero-



correlations (Table 23). A significant negative relationship was indicated between Support value and both progressive and traditional attitudes toward education. Change orientation variable scores were not significantly different for the SER group as hypothesized (Table 31). Automation mean score for the SER group was significantly different from the other occupational group scores but not from the hypothesized direction. However, the mean scores on automation for all groups are 3.04 or higher, an indication of a progressive orientation to change for all groups. The mean scores for the change variables indicate a progressive orientation (for child rearing practices, control practices, automation, and political leadership) and a transitional orientation (i.e., neither traditional nor progressive for health practices and self-change). The SER group had significantly more contact with the mentally retarded and emotionally disturbed than did the other groups. Friesen (1966) also found the same conditions in Colombia and Peru. The very highly significant results support the hypothesis.

In summary, the findings of the present study, in terms of supporting the hypotheses, are as follows:

High frequency of contact resulted in high intensity responses for the ATDP. High frequency of contact, if accompanied with alternative rewards, enjoyment of contact, decrease of avoidance of contact resulted in positive ATDP responses.



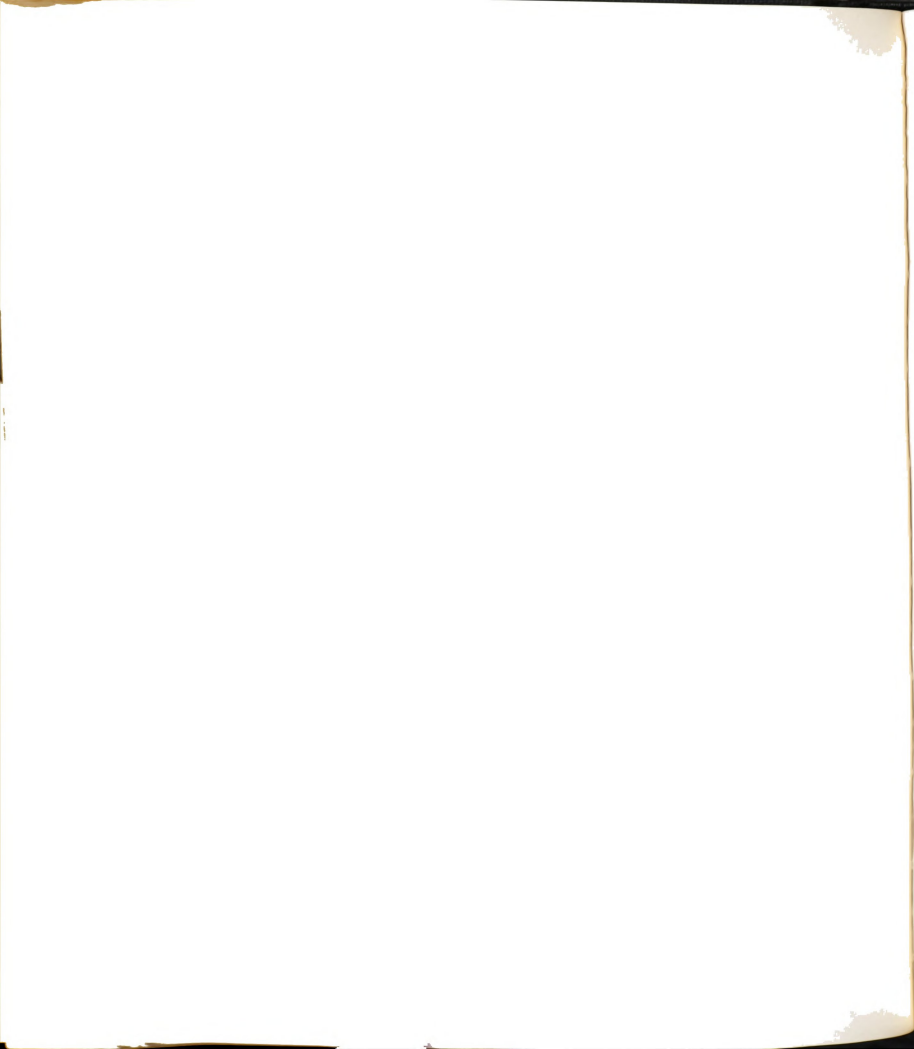
hypothesized, high Leadership value scores resulted in traditional attitudes toward education. Recognition value scores were not differentially related to the attitude toward education. Benevolence value scores were not significant for occupational groups but were significant for the sexes; females had higher scores than males.

Change orientation scores were correlated with positive attitudes toward education.

The SER group had higher Benevolence value scores than all groups in the sample, lower Leadership value scores than the L group, and lower Recognition value scores than the L group. The SER group also had lower traditional attitudes toward education scores than all groups but not higher progressive attitude scores. All groups indicated a transitional orientation to change, with no significant differences. The SER group had more contact with severely retarded and emotionally disturbed persons than other groups.

Part II: Discussion of Theoretical and Methodological Issues

The theoretical basis of the study together with methods used in the investigation were discussed at length in the chapters. In this section, the emphasis will be on examination of the theoretical and methodological issues as they relate to the outcomes of the study in

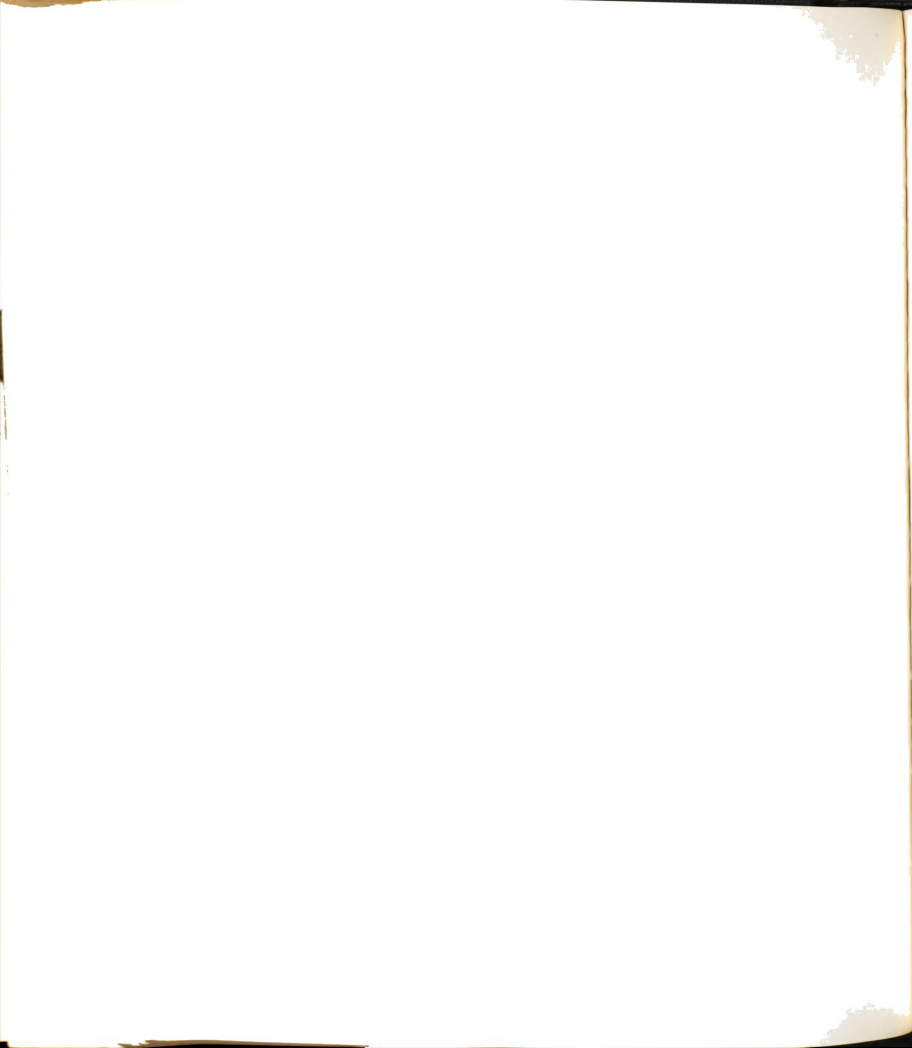


, and in particular as the issues are related to the
 ation or non-confirmation of the hypotheses.

Local Issues

The general theoretical orientation of the study was
 psychological with a primary focus on the relation-
 between attitudes and personal contact, interpersonal
 change orientation, and certain demographic
 es (age, sex, income, education, etc.). An attempt
 e to establish a differential pattern of attitudes
 disabled persons and attitudes toward education on
 is of such variables.

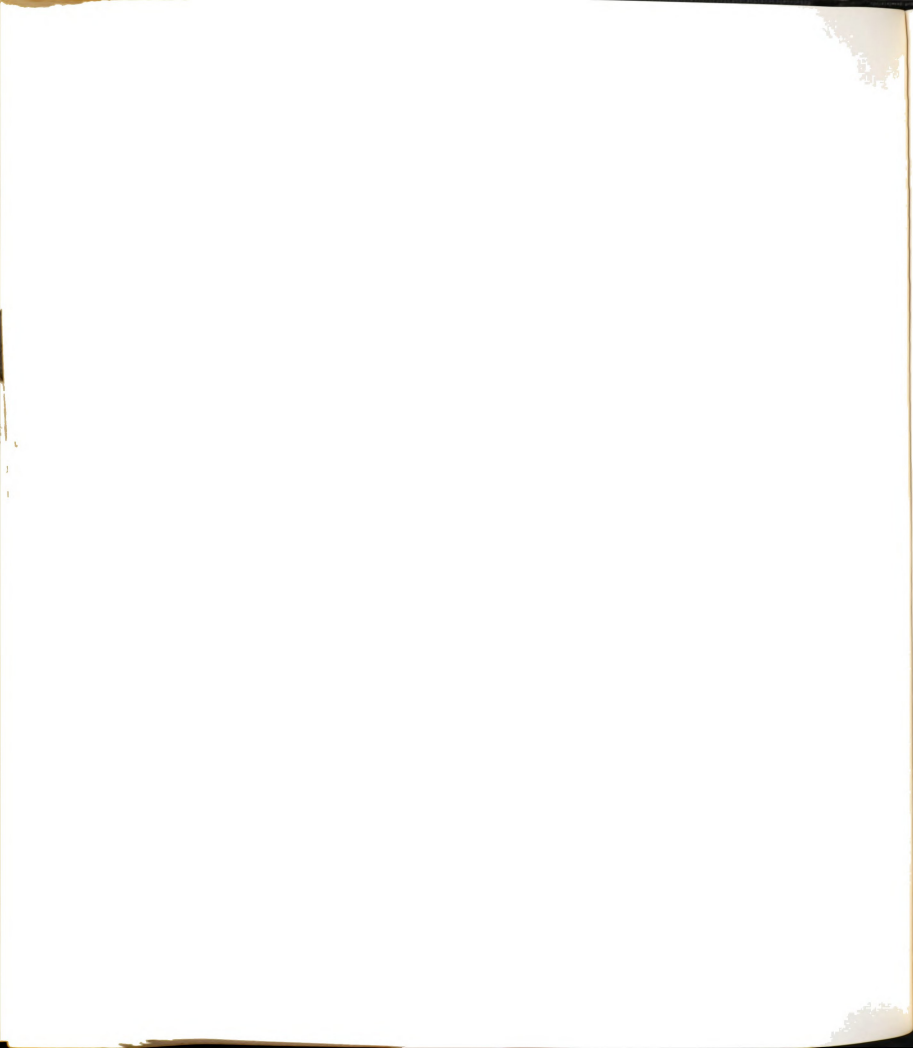
The theoretical framework for attitudes toward education
 provided by Kerlinger (1956) who postulated a dichotomy
 ational attitudes having permissive-progressive
 strictive-traditional dimensions. Kerlinger postulated
 progressive-traditional dichotomy of attitude orientation
 education can be generalized to other relevant
 les. Kerlinger emphasizes that progressivism and
 ionalism are not just opposite constructs but that
 re distinct orientations in their own right. In view
 confounding of the derived scores, when both the
 ional and progressive dimensions are significant, it
 reasonable to assume that the issues are more com-
 ed and the attitudes not so neatly dichotomous as
 ger's research seems to indicate. It may be, however,



the interaction of attitudes and values produces these expected results. These results may also be interpreted as response generalization. However, the need for further empirical evidence appears to be indicated by these results in order to permit a confident interpretation of the progressive-traditional attitudes toward education as used in the present study.

Attitude intensity and contact are considered to have a direct relationship with an increase of contact with the attitude object resulting in an increase of attitude intensity (Guttman and Foa, 1951). Rosenberg (1960) indicated that intensity is an action predictor. Zetterberg (1963) has suggested that the location of a score on the favorable-unfavorable continuum of attitude intensity is directly related to whether the contact was voluntary and perceived to be rewarding. For the Japan sample, intensity of contact proved to be meaningful correlates of enjoyment of contact and alternatives to contact.

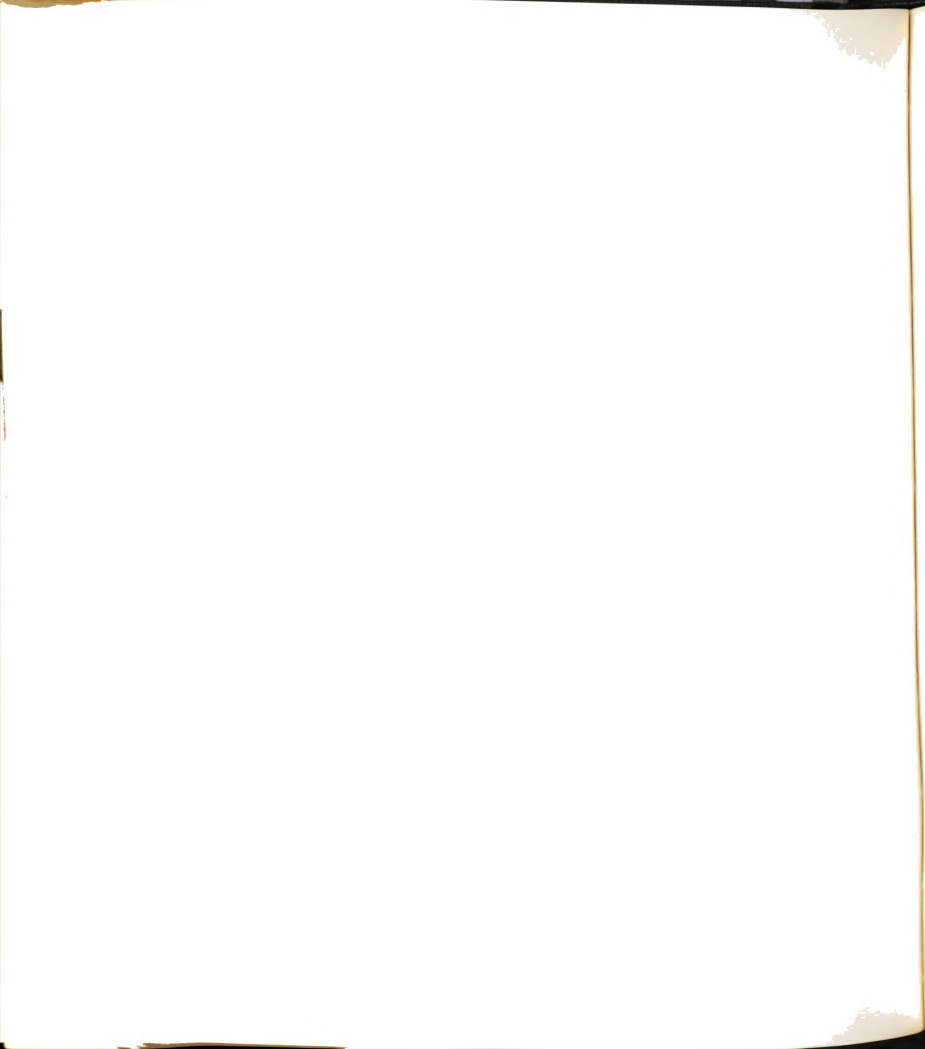
The framework for attitudes toward disabled persons is provided by Wright et al. (1960) and Meyerson (1963) in which the relationship of attitudes and values are given careful attention. Wright et al. (1960) emphasized two broad types of values: asset and comparative. Asset values are derived from an evaluation of intrinsic worth; comparative values are derived on the basis of comparison with a normative standard of the past or present. As related



In the present study, it was postulated that the SER group would perceive disabled persons from an asset value frame of reference more than would the other occupational groups, and their scores would be more positive toward disabled persons. This concept was extended in hypothesizing a positive relationship between positive attitudes toward disabled persons and progressive attitudes toward education as measured by the instruments of the study.

Operationally, asset and comparative values were measured by the Gordon Survey of Interpersonal Values. Asset values were measured by the Benevolence sub-scale (altruistic needs); comparative values were measured by the Power sub-scale (power needs), and by the Achievement sub-scale (achievement needs). The data indicated a relationship between these values and positive progressive attitudes. The summary of results (Table 37) indicates that scores on the relationship between values and attitudes are not consistently significant although in some cases the relationship was in the hypothesized direction. These results suggest that further investigation of these attitude-value interrelationships may indicate consistent significant relationships.

An orientation toward change has been postulated as indicative of positive or progressive attitudes. An orientation to change represents a departure from status quo and an acceptance of new ideas. For the



al sample, high scores on change orientation variables resulted in significantly high scores on progressive attitudes toward education and low scores on traditional attitudes toward education. Though not significant, a positive relationship between high change orientation scores and positive attitudes toward disabled persons was indicated. The SER groups, however, did not show a significantly higher score than other groups, as hypothesized, on any of the change variables.

Methodological Issues

Several issues will be discussed in this section, including scaling, instrumentation, sampling, concept equivalence, and statistical analysis. Recommendations, where applicable will be summarized in the following section.

As reported in an earlier chapter, scaling procedures could not be completed due to computer programming difficulties. Scale and intensity analysis was suggested as one approach to concept equivalence. It is hypothesized that similar scale outcomes for different linguistic and cultural groups reflect similar psychological orientations toward the attitude object (see page 61ff).

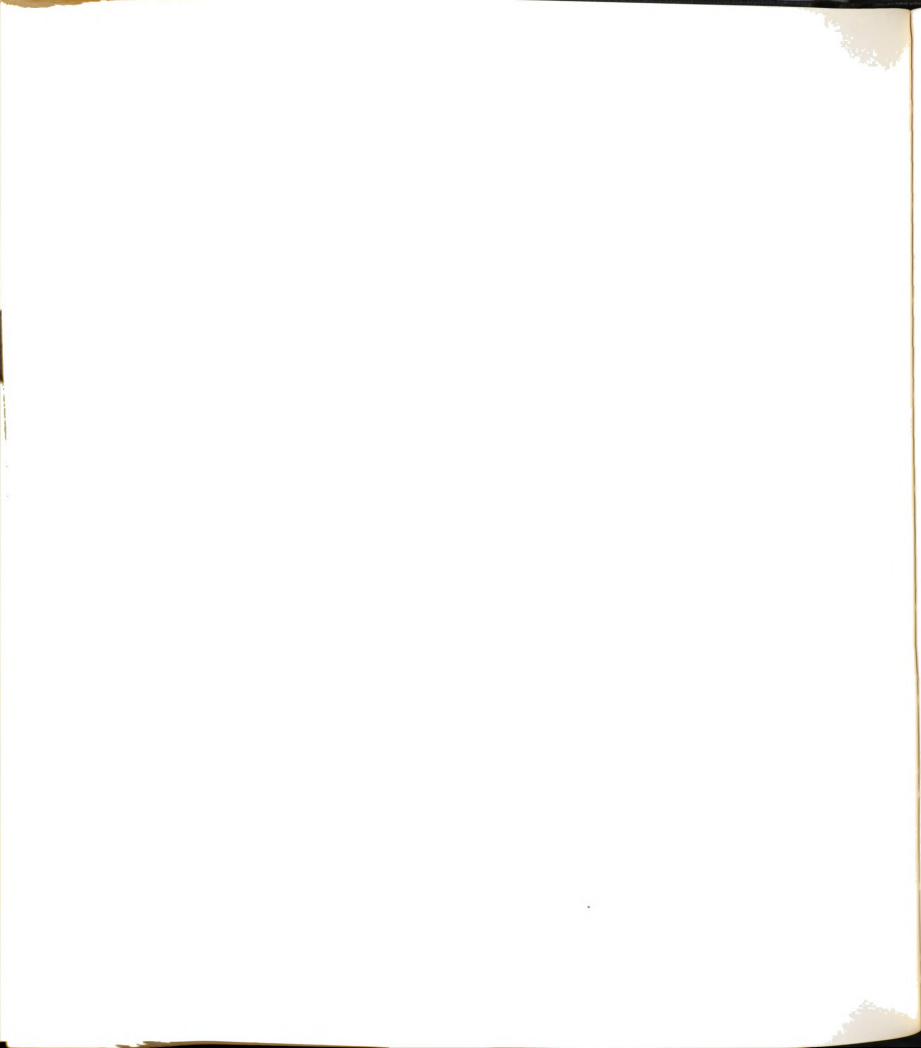
In Felty's (1965) Costa Rican study, the scale analysis resulted in only marginal success. Friesen (1966) reported that no meaningful unidimensional scales were formed in his study of attitudes in Colombia and Peru. He cites the



ty of attitudes and their multi-dimensional nature responsible for the failure of the items to scale. n data will be computer processed for scaling when I program becomes operational (see pages 118, 119) results will be published in the report on a larger (see page 6).

strumentation for the study consisted of Attitudes Disabled Persons, Kerlinger's Education Scale (massive and traditional sub-scales), Gordon's Survey of Personal Values (producing six value sub-scales), a Personal Questionnaire, and a Personal Questionnaire-Disabled Persons (specifically related to issues involving disabled persons). The attitude instruments and the questionnaire have one feature in common: the score for each of the sub-scales is determined by the summation of the scores given to each of the items of the scale. These instruments, except the questionnaires, have been used in previous investigations and their reliability and validity are considered to be adequate for the purposes of the present study. However, in translation into another language, the reliability and validity of the instrument may become inadequate. Two approaches to maintaining the properties of the original instrument will be discussed in the recommendations.

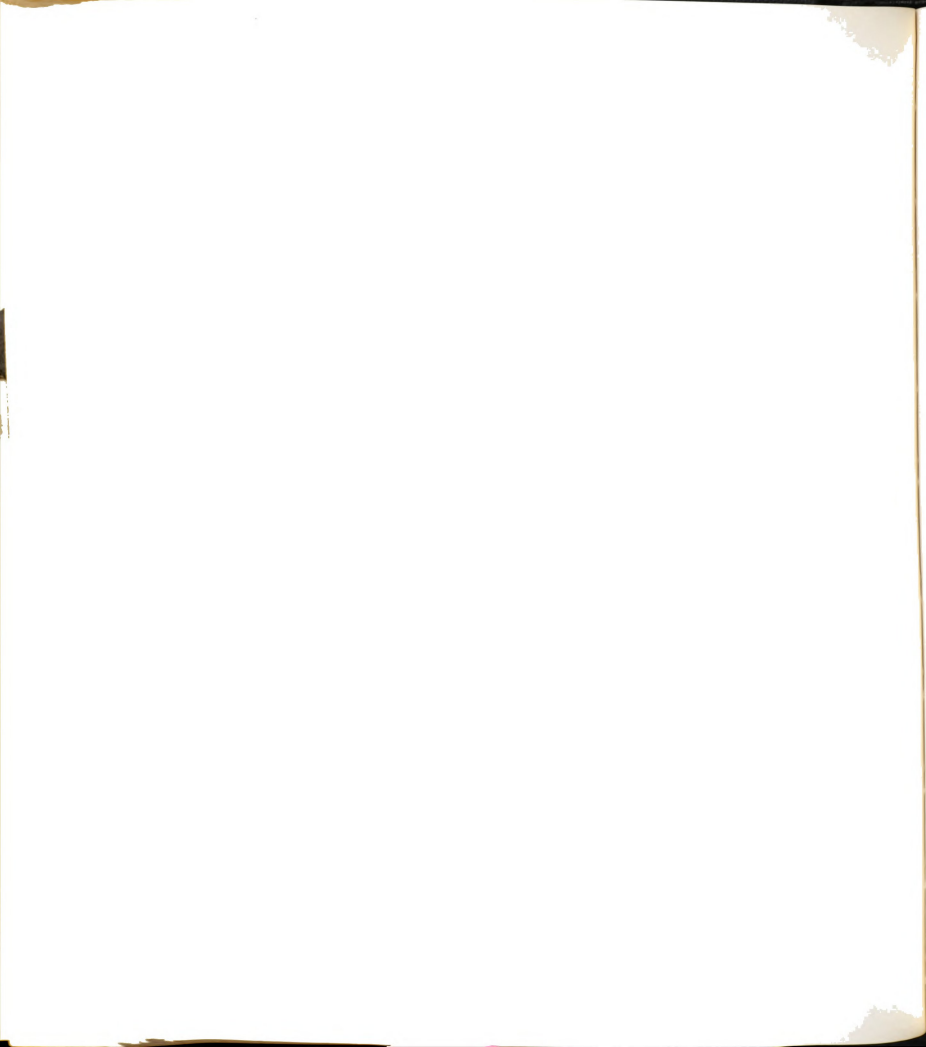
The sample used for the study places limits on the generalizability of the findings. Although a stratified



om sample would have been more meaningful, the laboratory nature of the present research indicated the selection of 50 respondents in each of 5 occupational groups: special education and rehabilitation personnel, educators, business managers and executives, government executives, and laborers. The total sample included respondents from all groups but the business and government executives were combined as a single group. The total sample of 211 respondents had the following composition by groups: E = 50; E = 41; M = 84; L = 37. The sex distribution for the total sample was nearly equal. However, within groups, the sex distribution was especially noticeable for the E group (males = 8, females = 33), and for the M group (males = 75; females = 9). The L group was composed mainly of white collar office workers with no representation from the commonly described "laborer" group.

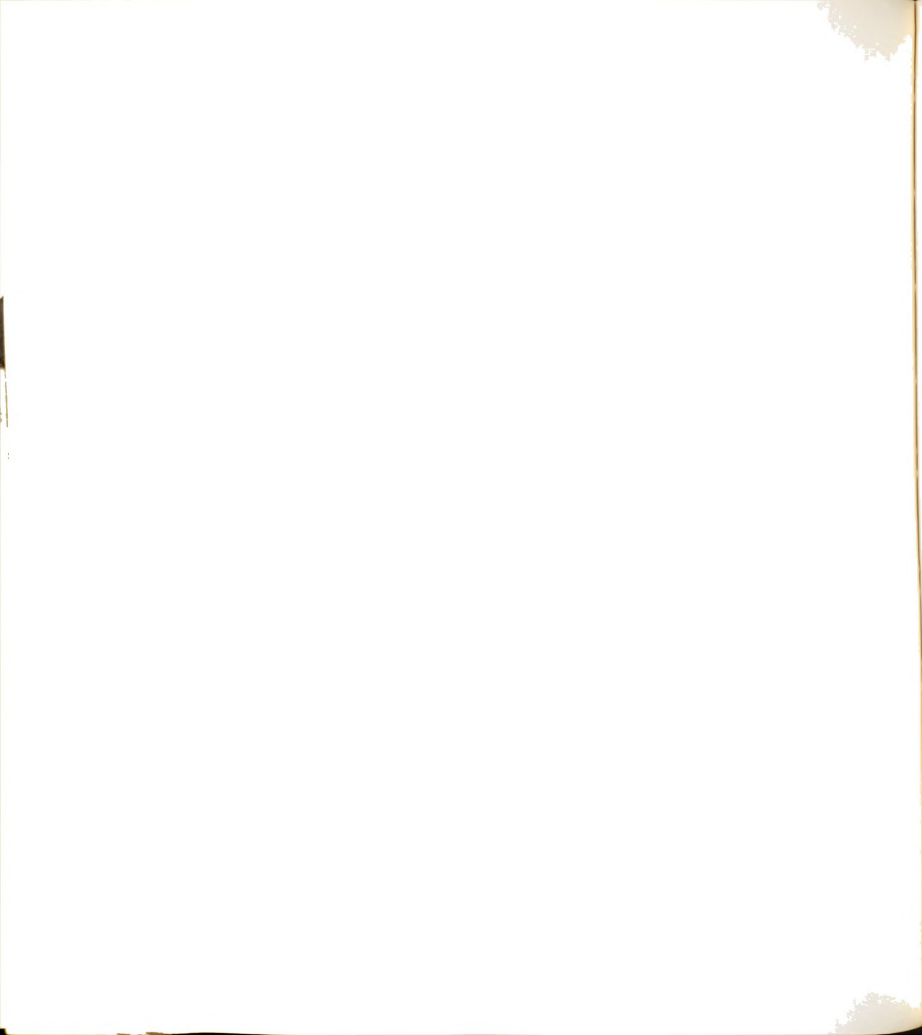
Concept equivalence has been cited as being of prime importance in cross-linguistic/cultural research. It is suggested that the translation into comparative concepts should be preferred to exact translation, i.e., dictionary word for word translation. To attain concept equivalence, the researcher worked with the Japanese translators in reaching an understanding and agreement of the meaning of the Japanese expressions and hard to understand phrases and

The use of three translators, reviewing each other's translations, served as a precaution in assuring concept



equivalence. However, pre-testing of the instruments in Japan was not attempted because of the pressure of time and finances. On the other hand, pre-testing may be less essential in a highly literate nation like Japan where the terms used in the instrument would be understood by the majority of the population. The qualifications of the Japanese research assistants, being involved in special education and rehabilitation work professionally and being competent in the use of the English language, may be considered another guarantee of concept equivalence. It can be inferred that the whole problem of concept equivalence can be minimized by using nationals familiar with the general field of the research and by employing persons having a good understanding of both the original language of the instruments and the general educational level of the research population. These two conditions prevailed in the present study.

Statistical analysis utilized the following procedures: frequency column count; one-way (sex) and two-way (group) analysis of variance; and zero-order, multiple, and partial correlation. The frequency distributions were used to gain a statistical "feel" for the data, and to determine the high and low scores for the dichotomized variables used in the analysis of variance routine. The analysis of variance routines were adapted to correct for unequal frequencies in cells (missing data). This routine also provided the



mate level of significance in the computer print-off. Relation coefficients were also provided in a readily form in the computer print-off.

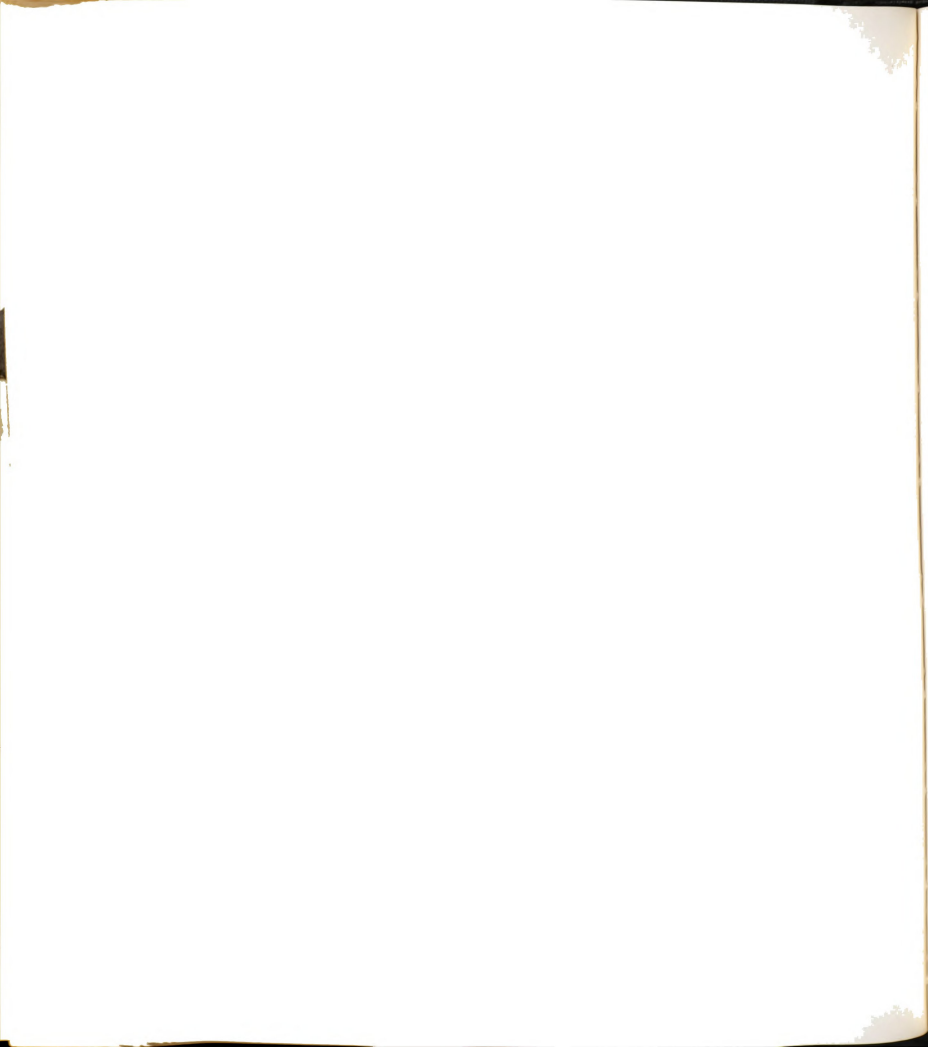
Part III: Recommendations

The recommendations in this section are the result of analysis of the data (Chapter IV) and the discussion of ethical and methodological issues (Chapter V). Foundations will be presented for three aspects of the sampling, instrumentation, and statistical analysis.

Foundations Related ling

Though the sample consisted of "known" groups, other not included in the sample might reasonably be expected provide new clues as to the nature of the composite structure for a given culture. For example, the attitudes of students (the new generation) and retired persons (older generation) might profitably be compared. The attitudes of employed women with non-employed women (i.e., mothers) should provide differential data pertaining to the influence of outside work experience or professional activity on attitudes. Another meaningful comparison might be between attitudes of professors and elementary and secondary teachers. For these and similar categories, a difference in attitude scores is suggested.

The mean age of the Japan sample was 35.16 years. Many of these persons were children during World War II and may



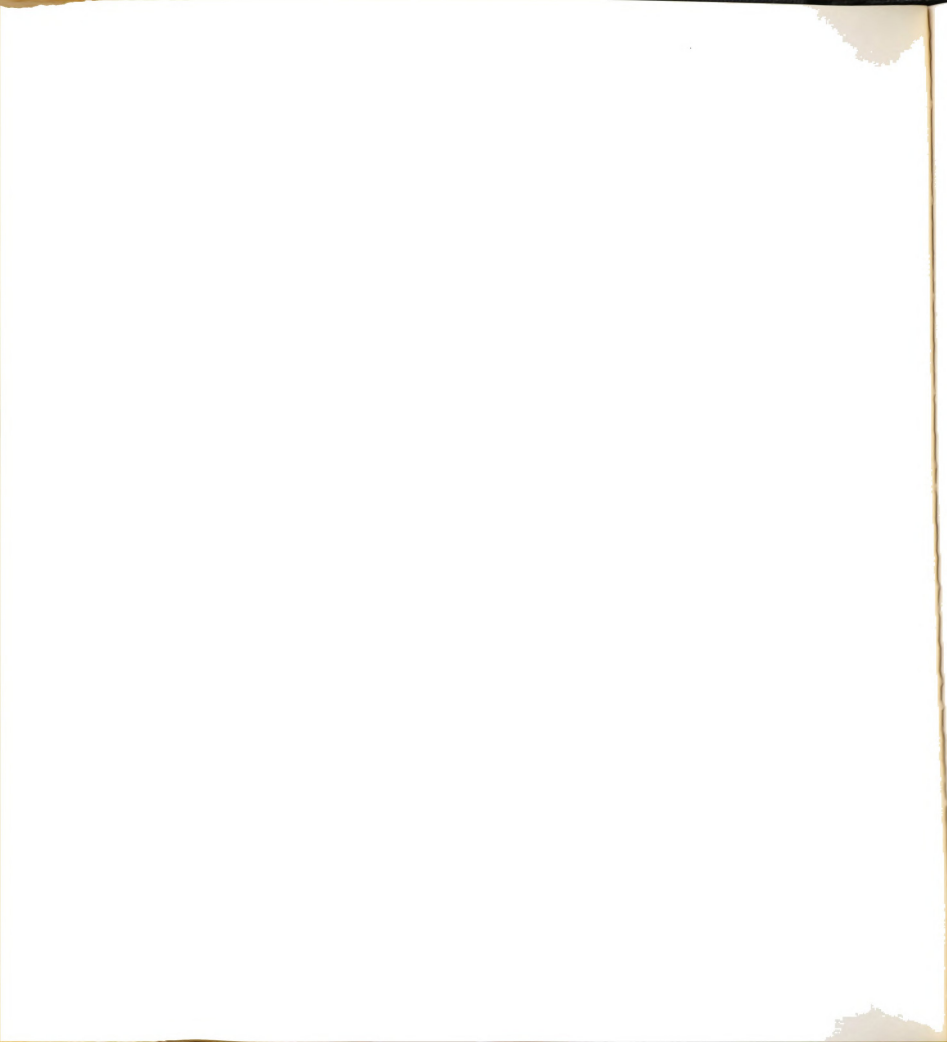
itudes quite different from a sample of older

It seems reasonable to assume that a future study, controlled for age, would indicate significant age differences especially in a country like Japan where rapid change is assumed to have taken place beginning at some identifiable point in time (e.g., at the end of war period).

Whenever feasible, the sex distribution within groups should be controlled. In the present study, the sex ratio in the total sample is relatively equal but the E and M groups are unequal, with more females in the E group and more males in the M group. This condition makes a partial sex interpretation meaningless. Following (Guttman, 1966) who cites Guttman, a sample composed of 100 subjects (50 males, 50 females) is recommended for each condition within the sample.

Confounders Related to the Instrumentation

The change variables used in the present study make a partial contribution to attitude scores. Six change variables were included in the analyses. The addition of other change variables in the analyses such as geographic, social, and social mobility may also be assumed to bear a partial relationship to attitudes. On the other hand, some data which have not shown a relationship to attitudes were eliminated in an effort to shorten the time required

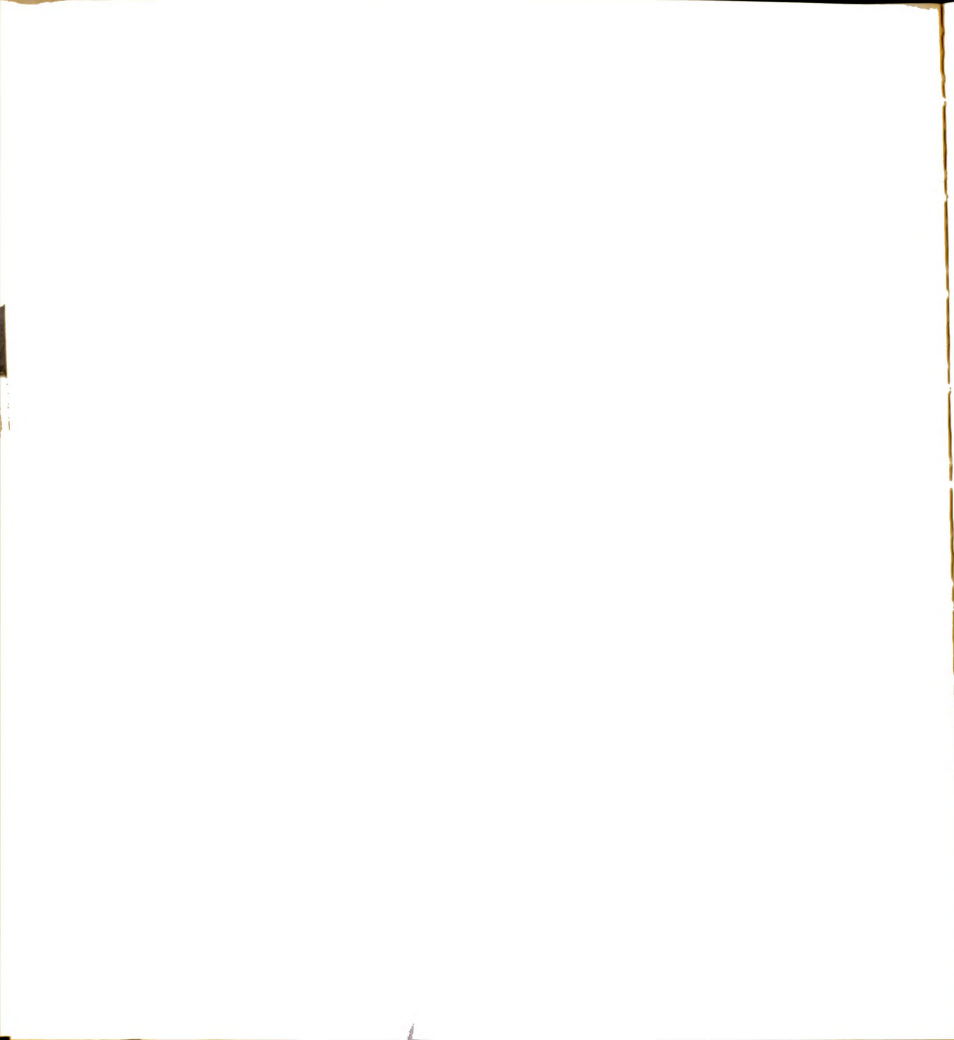


plete the questionnaires. In the present study both number of brothers and number of sisters is requested on the Personal Questionnaire but in analysis, number of siblings is used. Both amount of rent and amount of family income are requested. For Japan, with subsidized housing, rent payments become irrelevant as an indicator of economic status.

The addition of another question, requesting the amount of income of the respondent (or the primary wage earner of the family) would have been desirable in addition to the amount of income for all members of the respondent's family.

Because of the length of time required to complete the battery of instruments, an attempt should be made to reduce the administration time by eliminating or revising nonproductive items.

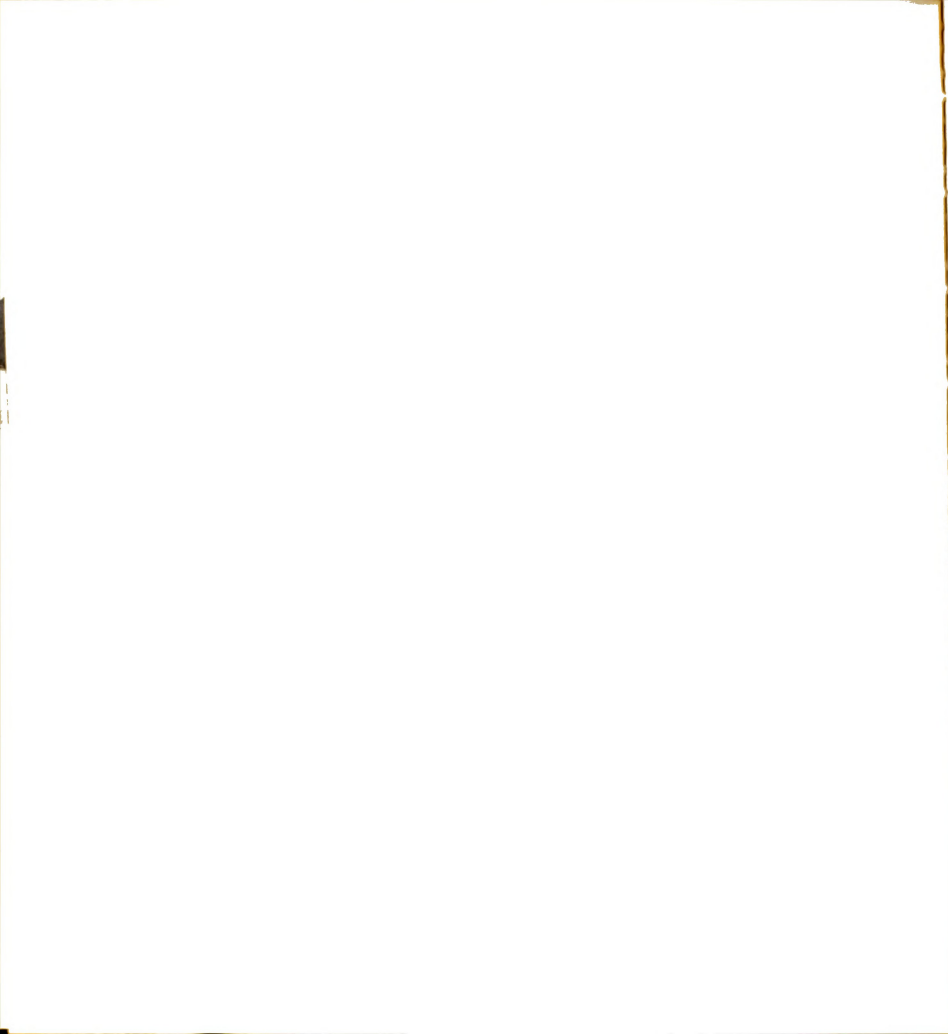
Although the reliability of the instruments has been established on United States samples, translation into other languages will make reliability data relatively meaningless. Therefore, it is strongly urged that reliability studies be completed after translation, and before administering the instruments to the major sample. Although extreme caution may be exercised in translation, reliability studies are recommended. On the other hand, cross-national scaling of items in two or more countries is assumed to be evidence of concept equivalence and is a measure of construct validity (see page 62ff). When scaling techniques become more operable, they may be an adequate alternative for the present reliability measures.



concept equivalence, emphasizing ideas rather than
 is more important than index equivalence (formal,
 ary-type translation). In an attempt at ensuring
 equivalence, Guttman (1959, 1961) has developed a
 tic model, called facet theory, for the selection
 ysis of items in scaling (see Felty, 1965, pp. 173-
 a detailed discussion of facet theory). Guttman
 in analyzing the research by Bathide and van den
 (1957), proposed three necessary "facets" or factors
 ay be combined in various ways to determine the
 nt structure of the attitude universe of intergroup
 r.
 e three facets were labeled Subject's Behavior,
 t, and Referent's Intergroup Behavior (Figure 1). One
 from each facet must be represented in any given
 nt. This facet model was later expanded to include
 itional facets, Psychological Level and Concreteness.

<u>Facets</u>		
<u>Subject's</u> <u>Behavior</u>	B. <u>Referent</u>	C: <u>Referent's</u> <u>Intergroup</u> <u>Behavior</u>
ief	^b ₁ subject's group	^c ₁ comparative
ert action	^b ₂ subject himself	^c ₁ interaction

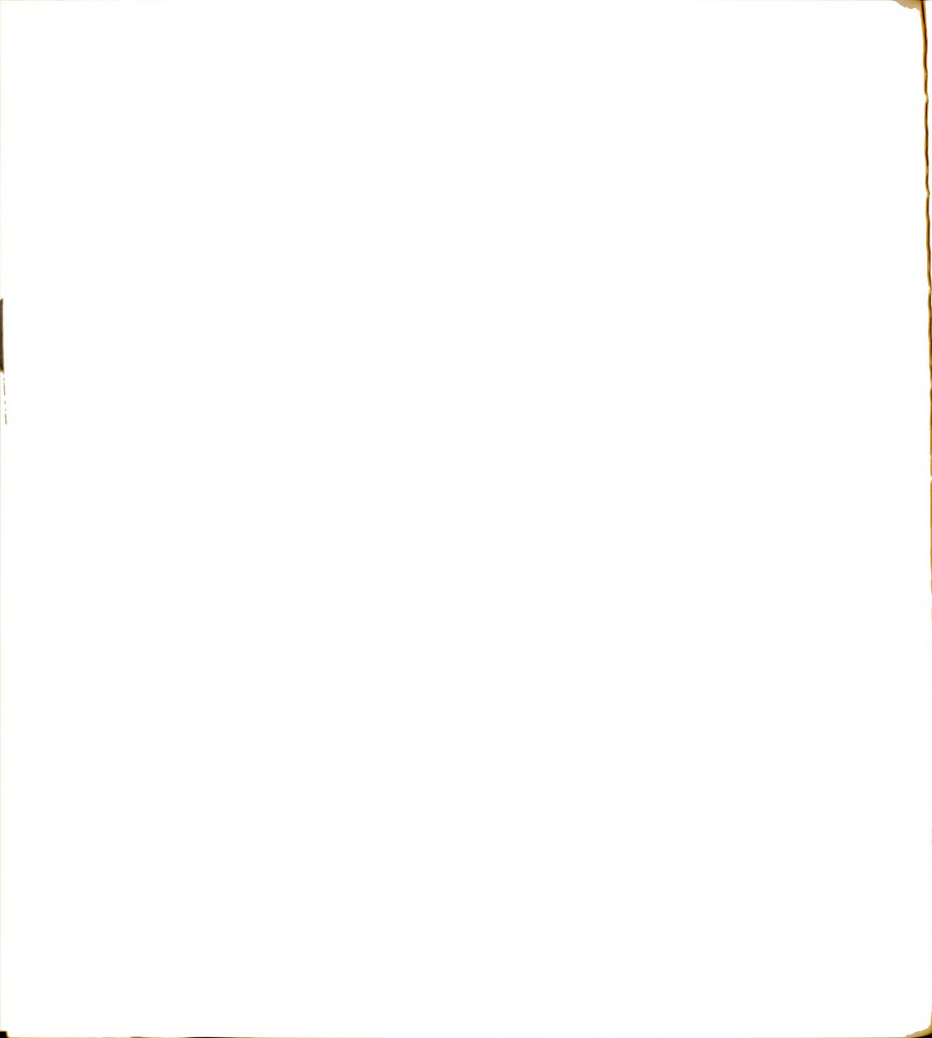
g. 1.--Basic facets used to determine component
 ure of attitude universe.

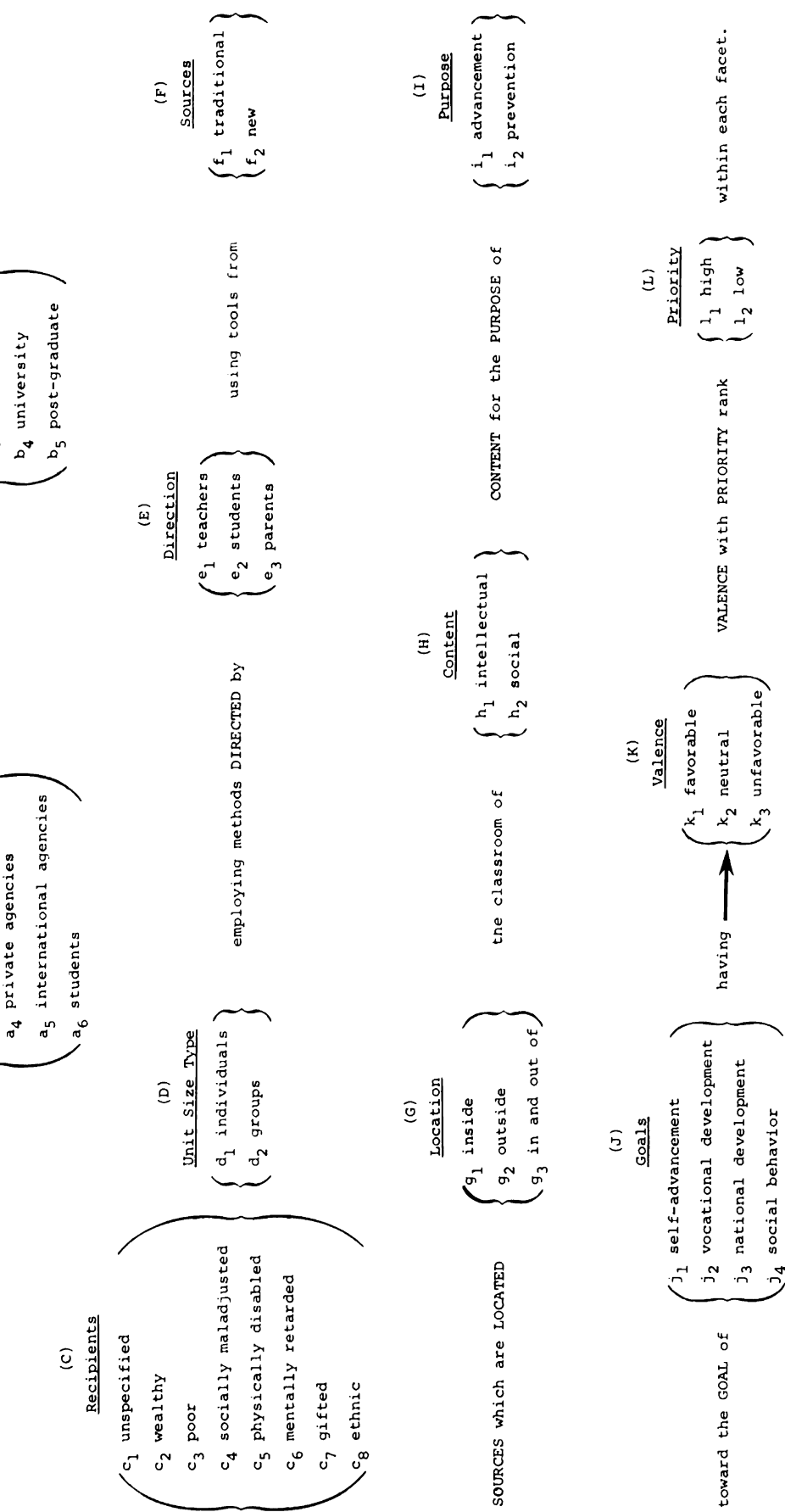


a later attempt to simplify this model, Dr. John
 an of Michigan State University, and Dr. Louis
 of the Israel Institute of Applied Social Research
 constructed a Mapping Sentence (Figure 2) designed to
 d in constructing an attitude toward education
 based on facet theory. A Mapping Sentence based on
 analysis and designed to measure cross-cultural
 des on a multi-nation in-depth study of attitudes
 d education currently underway at Michigan State
 rsity by Dr. John E. Jordan has also been designed by
 Jordan and Guttman (Figure 3). The original Mapping
 nce (Figure 2) is incorporated into the second one
 en facets Y and M. The use of facet design in con-
 structing instruments would tend to shorten their length
 ell as to provide for a more complete sampling of the
 tude universe, as recommended above.

Recommendations Related Statistical Analysis

The continued attempt to operationalize scaling
 niques for computer analysis (MSA-I, Lingoes, 1965) is
 ommended. Its value lies in the assumed ability of
 s procedure to process multi-dimensional as well as multi-
 dimensional data. This technique also results in a
 ermination of concept equivalence and may be considered
 measure of reliability.

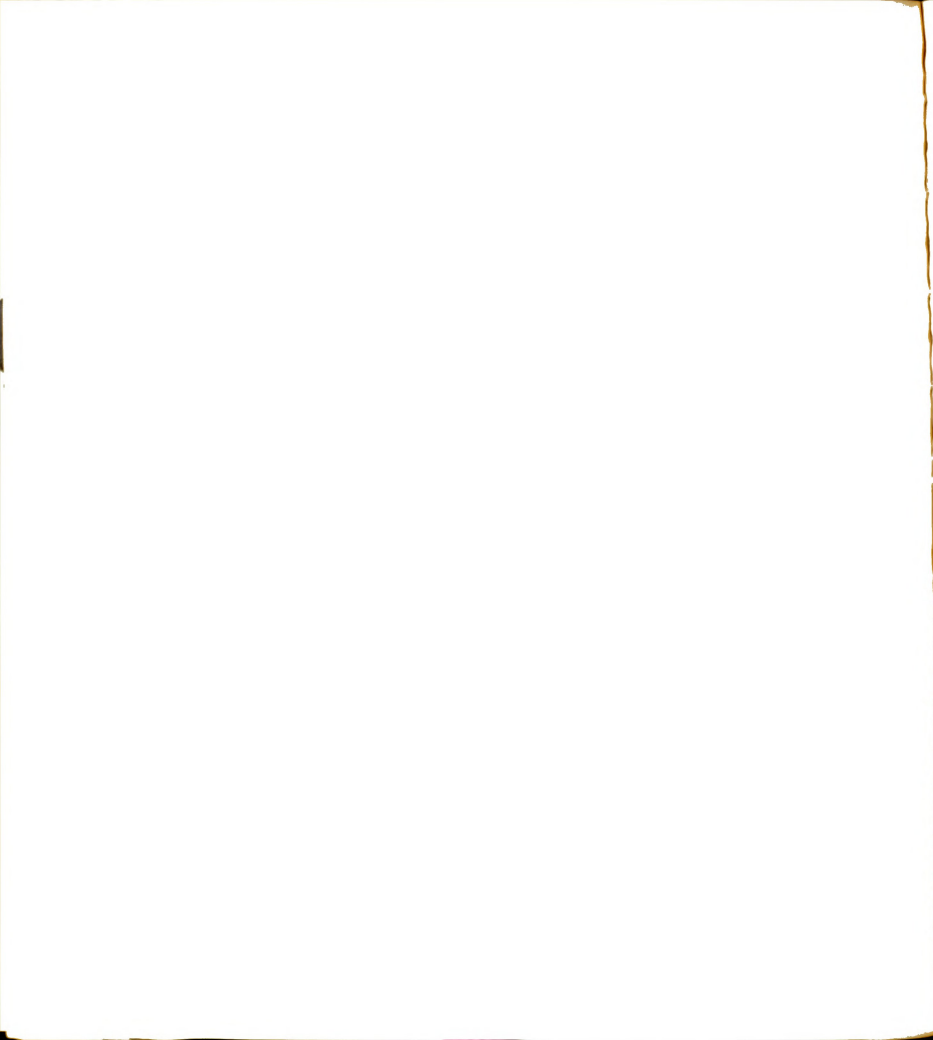


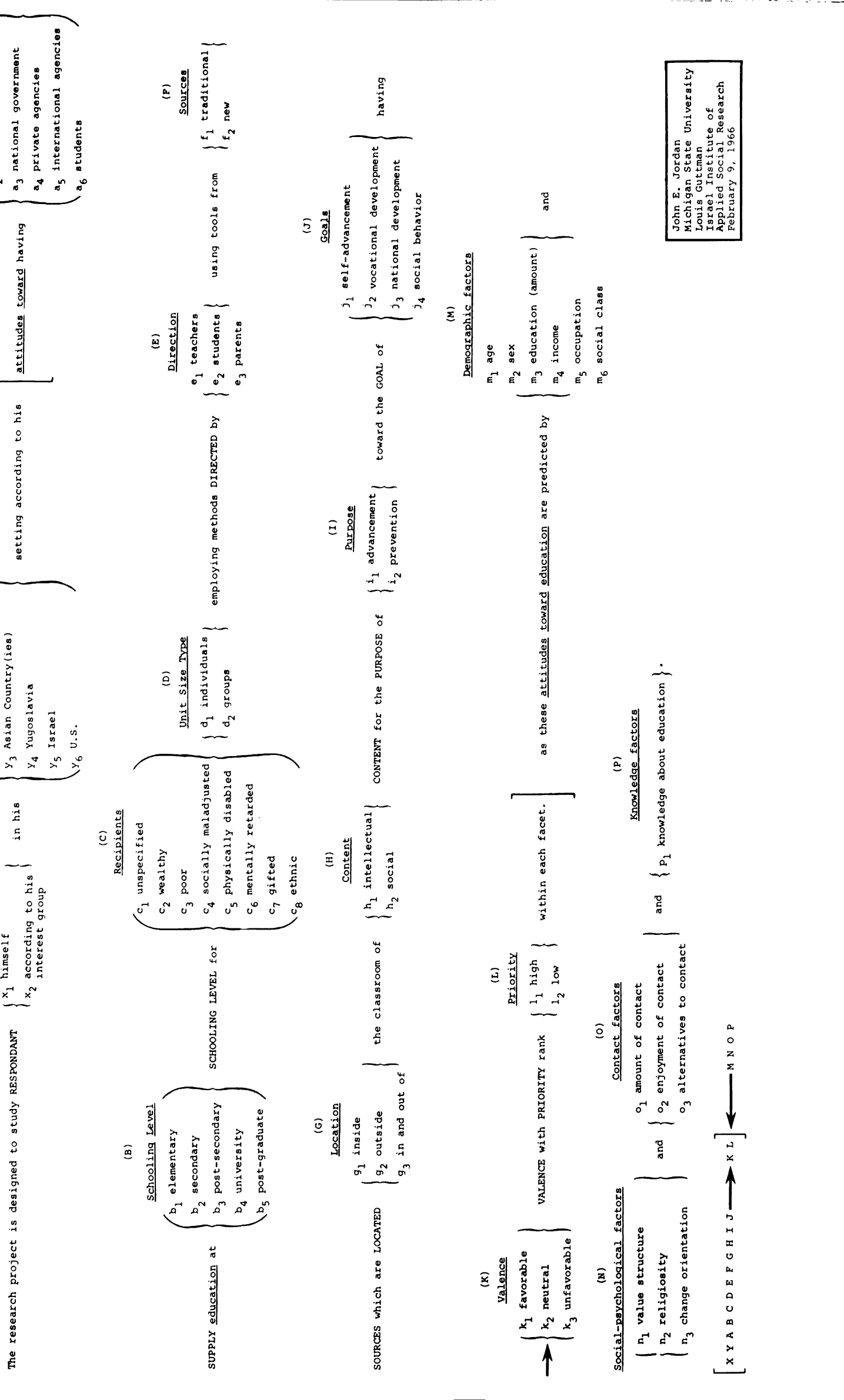


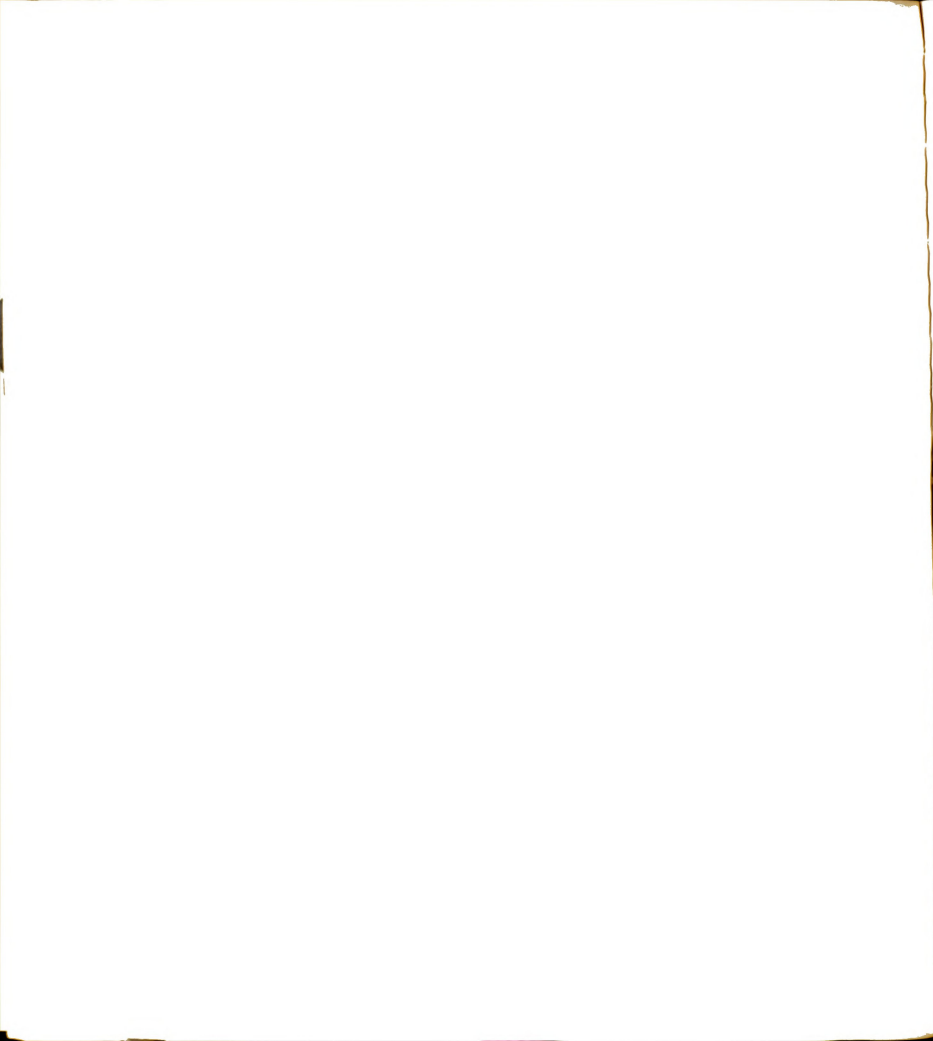
Supplier (A) / of schooling LEVEL (B) / for RECIPIENT (C) / of UNIT SIZE TYPE (D) / of method DIRECTION (E) / of SOURCE (F) / LOCATED in (G) / of CONTENT (H) / for PURPOSE (I) / toward GOALD (J) \rightarrow attitudes toward education \rightarrow VALENCE (K) / with PRIORITY (L).

X A B C D E F G H I J \rightarrow K L

John E. Jordan
Michigan State University
Louis Guttman
Israel Institute of
Applied Social Research
February 9, 1966







as recommended by Felty (1965, pp. 199, 200, 220), the factor analysis should be explored for future studies. Commended use is indicated for detecting design flaws in a study, determining predictor variables for multiple regression analysis, and for providing various factor loadings for comparative analysis of the occupational groups. Factor analytic studies by Siller (1963) and Siller and Siller (1964) were found to be highly suggestive of alternative hypotheses to those underlying the Attitudes Toward Disabled Persons scale (see pp. 44-46). Factor analytic studies for each of the instruments could also be used as a uniform validity measure for the battery of instruments.

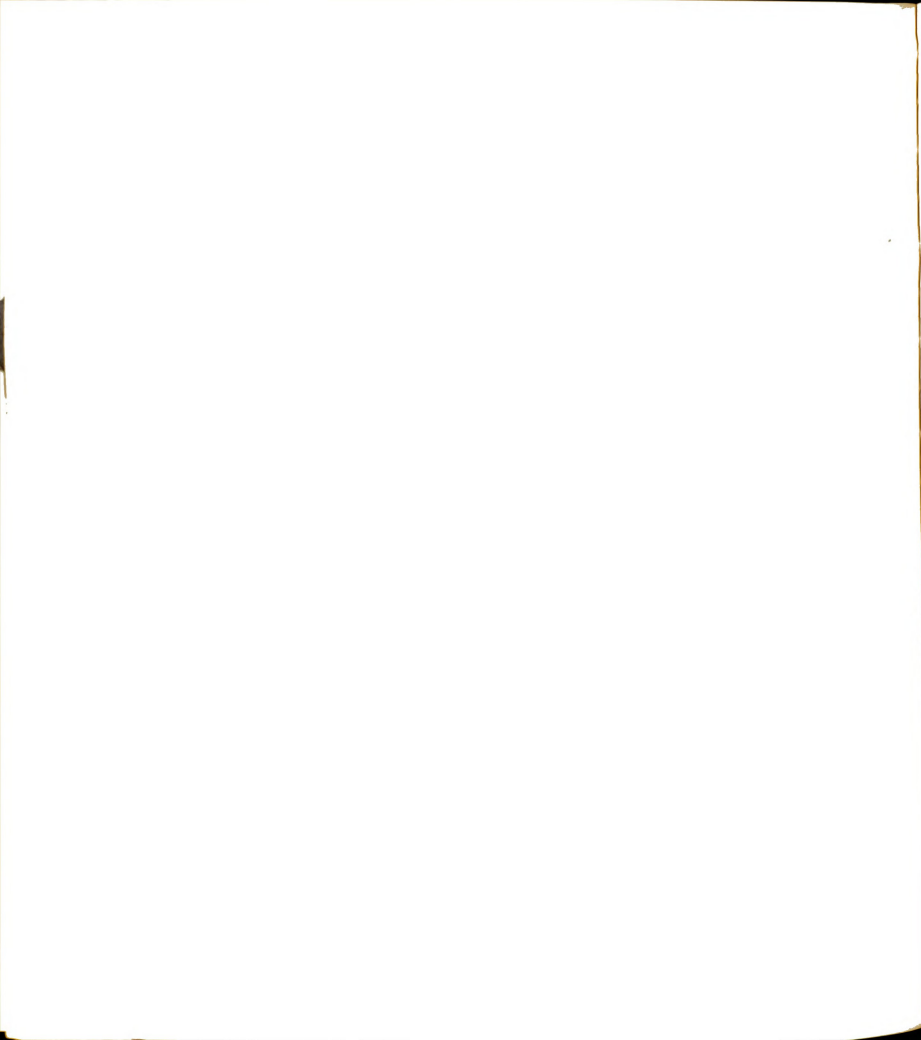
Part IV: Concluding Summary

In a general sense the present research has confirmed the theoretical orientation of the study. A salient relationship between attitudes (toward disabled persons toward education) and personal contact, value, change in attitude and certain demographic variables has been found to exist although the degree of consistency was not the same for each group of hypotheses.

The significant findings of the present study, in support of the hypotheses, may be summarized in the following statements:

High frequency of contact resulted in high consistency scores for attitudes toward disabled persons.

2. High frequency of contact with disabled persons, if accompanied with alternative rewarding opportunities, enjoyment of contact, and ease of avoidance of contact resulted in positive attitudes toward disabled persons.
3. High Leadership value scores resulted in high traditional attitudes toward education.
4. High Recognition value scores were not related to the attitude scores.
5. High Benevolence value scores were not related to the attitude scores for occupation groups but were significant for the sexes.
6. Women had higher Benevolence value scores than did men.
7. High change orientation scores resulted in high progressive attitudes toward education and low traditional attitudes toward education.
8. The SER group had higher Benevolence value scores than all groups, lower Leadership value scores than the M group; and lower Recognition value scores than the L group.
9. The SER group had lower traditional attitudes toward education than all groups, but not higher progressive attitudes toward education.
10. The SER group, as the other three groups, indicated a transitional or progressive orientation on each of the change variables.

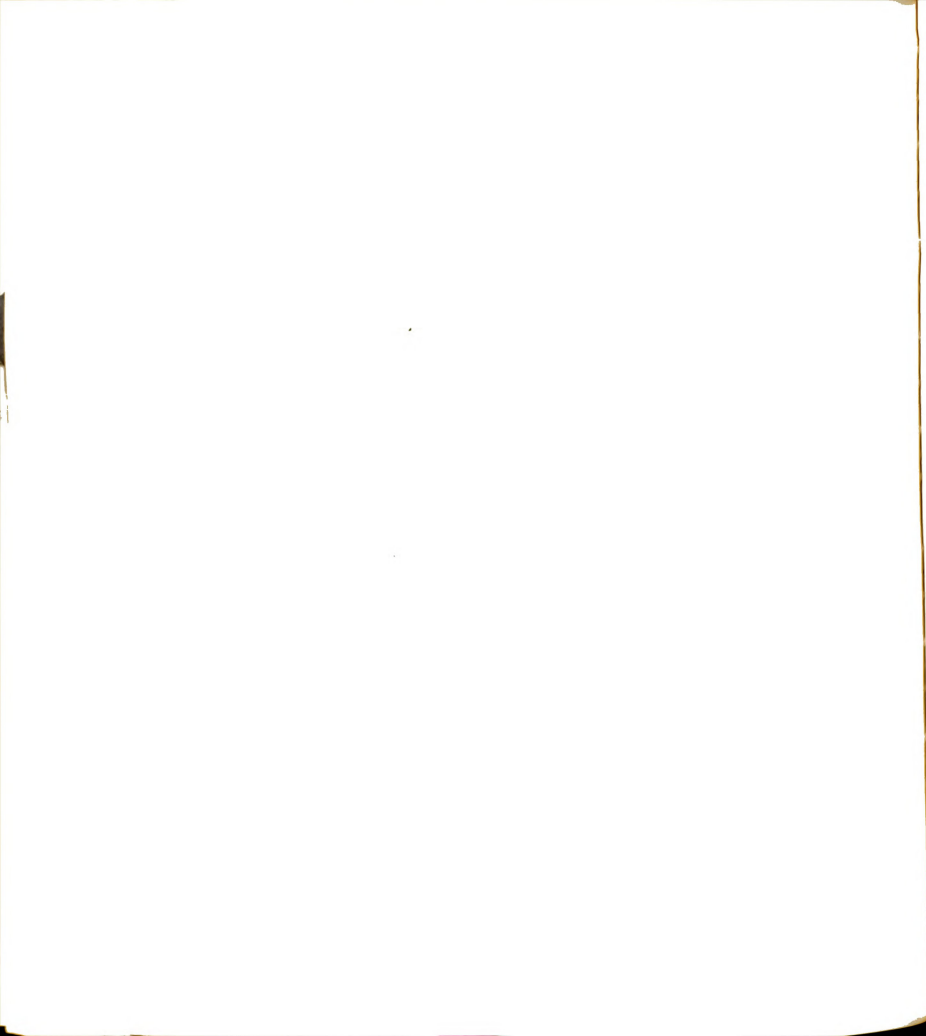


The SER group had more contact with mentally retarded and emotionally disturbed persons than other groups.

Testing was not attempted and several of the hypotheses were not confirmed. However, the majority of the hypotheses and sub-hypotheses were confirmed or the results were in the direction hypothesized suggesting that a rejection of the hypotheses is contra-indicated at least in our investigation of attitudes toward retarded persons and toward education. The complex nature of attitudes toward social objects and their relationship to other logical constructs such as values and personal characteristics are in need of further extensive research.

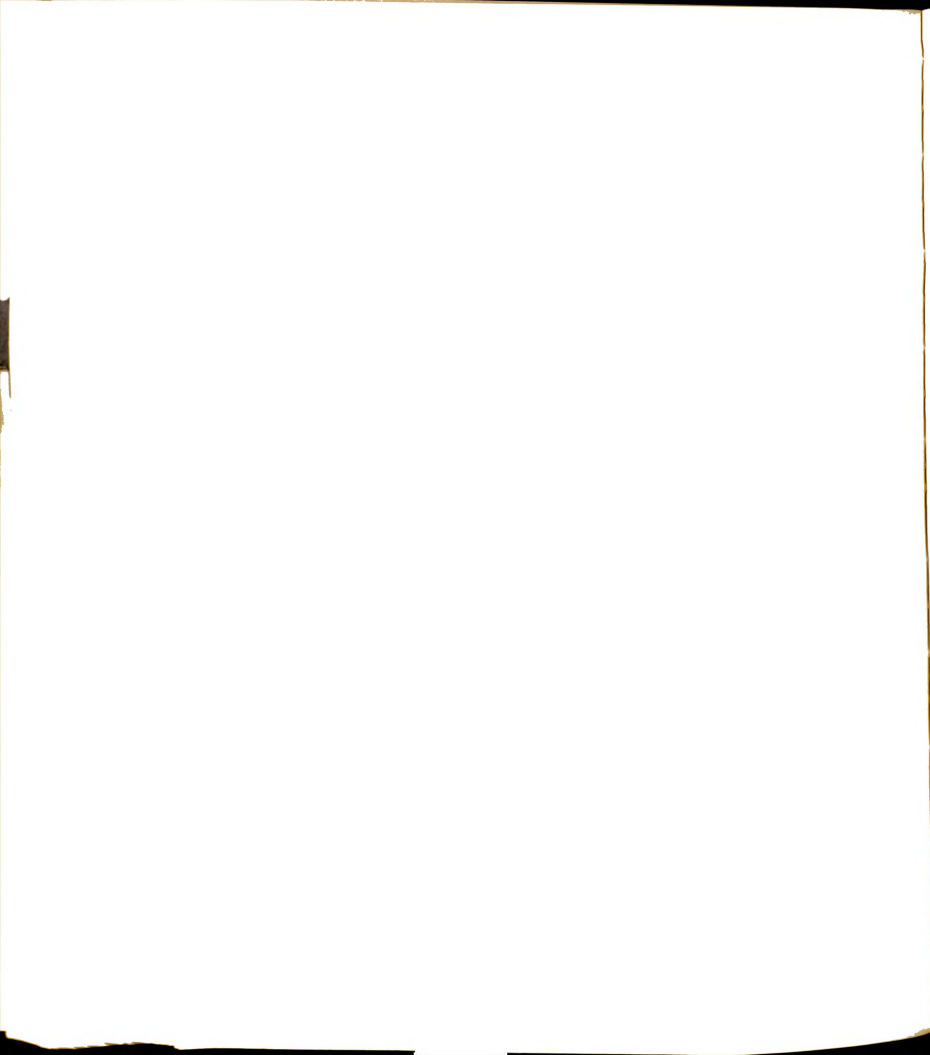
A major implication of the present research findings is the need for future studies of attitudes toward social objects to deal with the problem of concept equivalence by developing a comprehensive, interrelated battery of measures that can adequately sample the attitude construct. It may be that facet theory and mapping techniques as formulated by Drs. Jordan and Guttman will be very advantageous in the attempt to understand, and measure, attitudes toward significant social objects.

REFERENCES

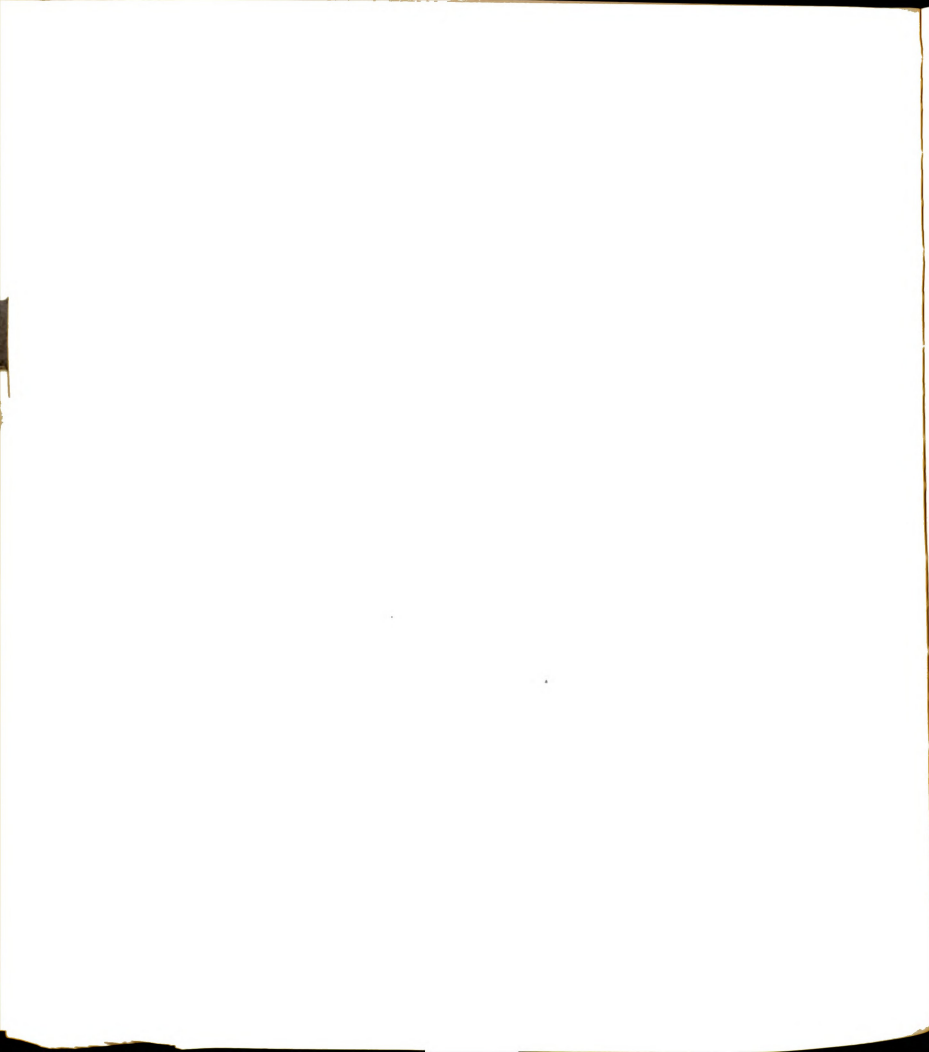


REFERENCES

- G. W. The nature of prejudice. Garden City, N. Y.: Doubleday Anchor Books, 1958.
- G., Vernon, P., and Lindzey, G. A study of values (Revised). Cambridge: Houghton-Mifflin, 1951.
- G., and Coleman, J. S. (Eds.) The politics of the developing areas. Princeton: Princeton University Press, 1960.
- , Sara E. The changes in attitudes of prospective teachers toward education and teaching in secondary schools. Unpublished doctoral dissertation, Indiana University, 1964.
- r, E. G. Attitudes toward the disabled. Rehabil. Counsel. Bull., 1963, 6, 26-30.
- R. G. The social psychology of physical disability. J. of Soc. Issues, 1948, 4 (4), 28-38.
- R. G., and Wright, Beatrice A. The midwest and its children. Evanston, Ill.: Row, Peterson, 1955.
- R. G., Wright, Beatrice A., Meyerson, L., and Nick, M. R. Adjustment to physical handicap and illness. New York: Social Science Research Council, 1953.
- R. Stereotypes et prejuges de couleur. Psychologia, 1955, 18.
- R., and van den Berghe, P. Stereotypes, norms and interracial behavior in Sao Paulo, Brazil. Amer. Soc. Rev., 1957, 22, 689-694.
- W. G. The modern history of Japan. New York: Frederick A. Praeger, Inc., Publisher, 1963.
- H. Through values to social interpretation. Durham, N. C.: Duke University Press, 1950.
- H. Attitudes of selected rehabilitation workers and other hospital employees toward physical disability. Psychol. Reports, 1962, 10, 183-186.



- . A. Cultural trends and the task of psychology. American Psychologist, 1965, 3, 203-207.
- J. R., and Yuker, H. E. Correlates of an intellectual orientation among college students. Proceedings of the 73rd Annual Convention of the American Psychological Association, 1965.
- W. E. A study of somatopsychological relationships in cerebral palsied children. J. Except. Child., 1955, 22, 347-350.
- , E. R. Attitude change through modification of attitude structure. J. Abnorm. Soc. Psychol., 1956, 2, 256-261.
- ght, D. Some principles of mass persuasion. Human relat., 1949, 2, 253-268.
- , E. Problems in special education of children in the multi-cultural society of Israel. Paper read at First International Conference, Assn. for Spec. Ed., London, July 1966, and at Third International Society for Rehabilitation of the Disabled, Germany, September, 1966.
- , E., and Adler, E. V.R.A. programs in Israel, Washington: Department of Health, Education, and Welfare, 1966.
- J. Manual of computer programs. Research Services, Department of Communications, Michigan State University, 1964.
- A. R. Attitude change and social influence. New York: Basic Books, 1964.
- J. F., and Browne, G. S. Contemporary education. New York: Harcourt, Brace and World, 1965.
- ank, W. M. (Ed.). Psychology of exceptional children and youth. (2nd ed.) Englewood Cliffs, Prentice-Hall, 1963.
- C. E. Attitude Change: A Review and Bibliography of Selected Research. UNESCO, No. 19, 1964.
- K. Population. Scientific American, 1963, 209 (3), 3-71.



T., Leviton, G. R., and Wright, Beatrice A.
adjustment to misfortune--a problem of social-
psychological rehabilitation. Artificial Limbs, 1956,
, 4-6.

J. Experience and education. New York: Collier
books, 1938.

in, Joan, and Dripps, Elaine. An analysis of attitudes
of acceptance-rejection towards exceptional children.
Master of Education Thesis, Boston, Univer., 1958.

n, G. H., Anderson, H. E., Jr., and Barry, J. R.
characteristics of students in the health related
professions. Gainesville: University of Florida,
rehabilit. Res. Monogr. Ser., June, 1966.

on in Japan. Tokyo: Ministry of Education, 1964.

, A. L. Techniques of attitude scale construction.
New York: Appleton-Century-Crofts, 1957.

, A. L. Experimental design in psychological
research. New York: Rinehart, 1960.

, A. L. Statistical methods for the behavior
sciences. New York: Holt, Rinehart, and Winston,
1961.

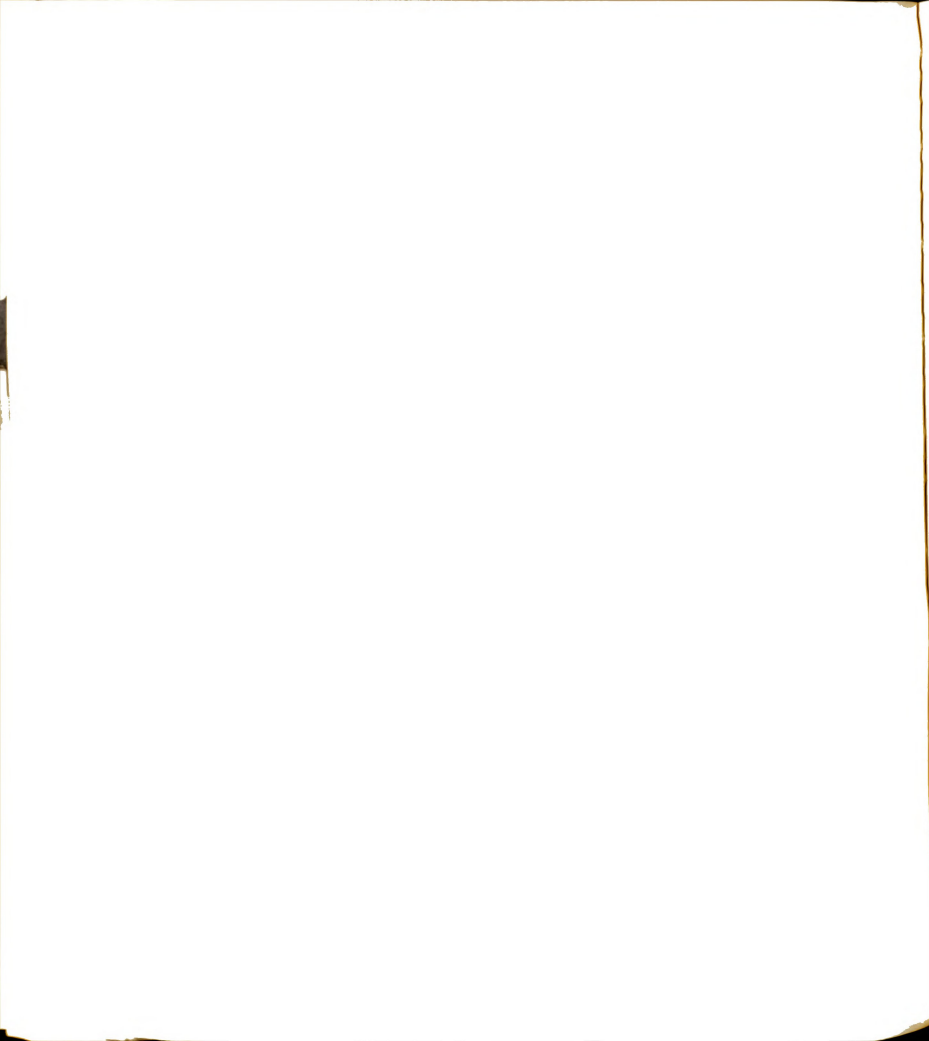
J. E. The measurement of attitudes toward disability
in San Jose, Costa Rica. A scale approach to the problem
of concept equivalence. Proceedings of the Ninth Inter-
American Congress of Psychology, Miami, Florida,
December, 1964.

J. E. Attitudes toward physical disability in Costa
Rica and their determinants: A pilot study. Unpublished
doctoral dissertation, Michigan State University, 1965.

er, L. A Theory of Cognitive Dissonance. Evanston,
Illinois: Row Peterson, and Co., 1957.

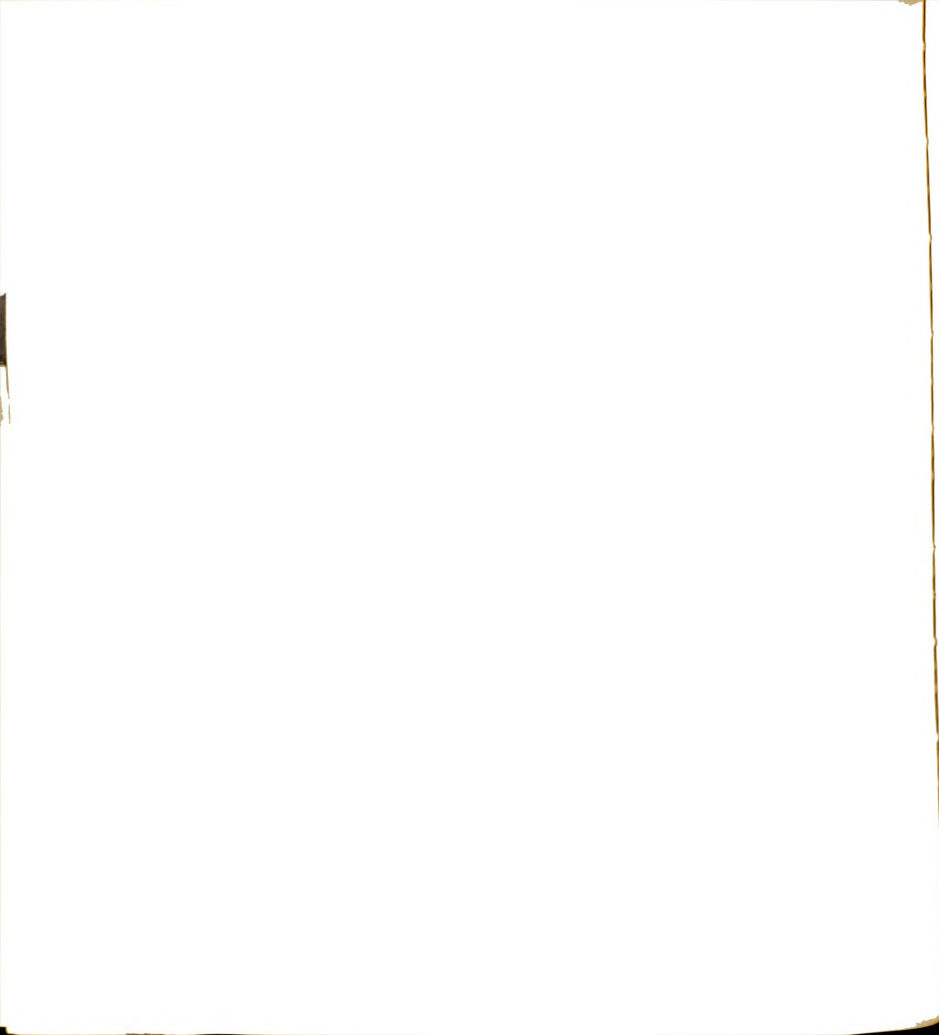
, F. C., and Kivlin, J. E. Attributes of innovations
and factors in diffusion. The Amer. J. Sociology,
1966, 72, 235-248.

G. Scale and intensity analysis in opinion research.
Int. J. Opin. and Attitude Res. 1950, 4, 192-208.



- G. Convergences in the analysis of the structure of interpersonal behavior. Psychol. Rev., 1961, 8 (5), 341-353.
- G. A facet approach to the prediction of communalities. Behavioral Sci., 1963, 8 (3), 220-226.
- D. G. Social status of physically handicapped children. Except. Child., December, 1956, 23 (3).
- a, W. K. Philosophy of education. New York: Macmillan, 1965.
- n, E. Disability as social deviance. In M. B. Gusman (Ed.), Sociology and Rehabilitation, Washington: Amer. Sociol. Assn., 1966.
- , E. W. Nature and determinants of attitudes toward education and toward physically disabled persons in Colombia, Peru, and the United States. Unpublished doctoral dissertation, Michigan State University, 1966.
- e, T. Democracy and the Japanese background. In . Schneps and A. D. Cook (Eds.) The Japanese Image. Philadelphia: Orient West, Inc., 1965.
- , J. K., and Maglione, F. D. Familiarity, dogmatism, and reported student attitudes toward the disabled. J. soc. Psychol., 1965, 67, 329-341.
- V. J., and Hatt, P. K. Methods of social research. New York: McGraw-Hill, 1952.
- Mary E. Values, attitudes, and social concepts of Japanese and American children. In Japanese character and culture. Tuscon: University of Arizona Press, 1962.
- N., Dornbusch, S. M., Richardson, S. A., and storf, A. H. Varient reactions to physical disabilities. Amer. Soc. Rev., June, 1963, 28, 429-435.
- L. V. Manual for survey of interpersonal values. Chicago: Science Research Associates, Inc., 1960.
- L. V. Research briefs on survey of interpersonal values. Chicago: Science Research Associates, Inc., 1963.

- B. F. Attitude measurement. In G. Lindzey (Ed.), Handbook of social psychology. Vol. 1, Theory and method. Reading, Mass.: Addison-Wesley, 1954.
- chs, D. E. Administrative theory and change in organization. In M. B. Miles (Ed.), Innovation in education. New York: Teachers College, Columbia University, 1964.
- n, L. The Cornell technique for intensity and scale analysis. Educ. and Psych. Meas., 1947, 7, 247-280.
- n, L. The problem of attitude and opinion measurement. In S. A. Stauffer (Ed.), Measurement and prediction. Princeton: Princeton Univer. Press, 1950.
- n, L. An outline of some new methodology for social research. Publ. Opin. Q., Winter, 1954, 18 (4), 395-404.
- n, L. A structural theory for intergroup beliefs and action. Amer. Soc. Rev., 1959, 24, 318-338.
- n, L. The structuring of sociological spaces. Technical Note No. 3, Contract No. AF 61 (052)-121, Dec., 1961, p. 14.
- , L., and Foa, U. G. Social contact and an intergroup attitude. Publ. Opin. Q., Spring, 1951, 43-53.
- , L., and Suchman, E. A. Intensity and a zero-point for attitude analysis. Amer. Soc. Rev., 1947, 12, 7-67.
- on, J. M. Multiple scalogram analysis (MSA) on the DC 3600. Michigan State University Computer Institute for Social Science Research, Technical Report 6, February 10, 1964.
- on, J. M. The "CUT" program for Guttman scalogram analysis. Computer Center, Michigan State University, 1965.
- E. E. On the theory of social change. Homewood, Illinois: Dorsey Press, 1962.
- . W. Changing conceptions of modernization in Japan. In M. B. Jansen (Ed.), Changing Japanese attitudes toward modernization. Princeton: Princeton Univer. Press, 1965.



an, W. H. The measurement of attitudes toward the Negro in the South. J. Soc. Psychol., 1958, 48, 305-317.

J. R., and Hanks, L. M., Jr. The physically handicapped in certain non-occidental societies. J. of Soc. Issues, 1948, 4.

, N. G., Stern, G. G., and Cruickshank, W. M. Attitude of educators toward exceptional children. Syracuse: Syracuse Univer. Press, 1958.

, G. C. The human group. New York: Harcourt, Brace and World, 1950.

, G. C. Social behavior: its elementary forms. New York: Harcourt, Brace and World, 1961.

H. Survey design and analysis. New York: Free Press of Glencoe, 1955.

S. Education of handicapped children in Japan. (Mimeographed Report) New York: International Society for the Welfare of Cripples, 1959.

n, E., and Schachter, S. (Eds.). Cross-national research: a case study. J. Soc. Issues, 1954, X (4).

n, E., Kumata, H., and Gullahorn, Jeanne E. Cross-cultural contributions to attitude research. Publ. Opin. Q., 1960, 24 (2), 205-223.

J. Attitudes of adolescents toward persons with disabilities. Unpublished doctoral dissertation, Columbia University, 1965.

M. B. (Ed.), Changing Japanese attitudes toward modernization. Princeton: Princeton University Press, 1965.

conomic Yearbook - 1964, Tokyo: the Oriental Economist, 1964.

J. E. The Guatemala research and training center in rehabilitation and special education. Selected convention papers--40th annual convention. Washington, D. C.: The Council for Exceptional Children, NEA, 1962 (a).



J. E. The university looks at rehabilitation: an international perspective. J. Mich. Med. Soc., 1962, 620, (b).

J. E. Rehabilitation and special education in Latin America. Papers read at the Inter-American Congress in Psychology, Mar del Plata, Argentina, April, 1963; and at the second International Seminar on Special Education, Nyborg, Denmark, 1963 (a).

J. E. Special education in Latin America. World Horizons in Special Education. Proceedings of 1963, Summer Lecture Series, College of Education, Michigan State Univer., 1963 (b).

J. E. Problems and promises of education in Latin America. Special Education in Latin America. Phi Kappa Kappan, January, 1964 (a).

J. E. La Rehabilitacion y Educacion Especial en la America Latina, Revista Mexicana de Psicologia, February, 1964 (b).

J. E. The functional approach to the study of attitudes. Publ. Opin. Q., 1960, 24 (2), 163-204.

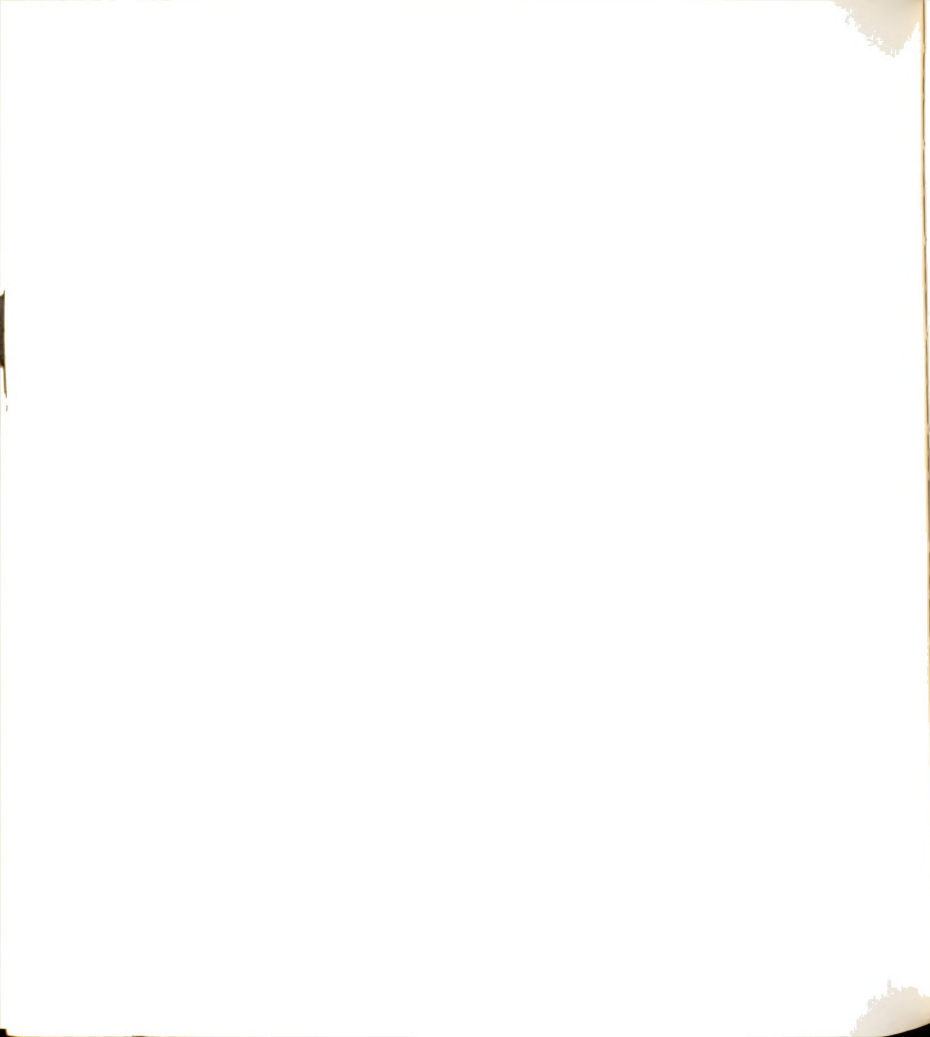
J. E., Levin, M. L., and Hamilton, M. Research on the diffusion of innovation. Amer. Soc. Rev., 1963, 28 (2).

J. E., and Stotland, E. A preliminary statement to a theory of attitude structure and change. In S. Koch (Ed.), Psychology: a study of a science. Vol. 3, Formulations of the person and the social context. New York: McGraw-Hill, 1959, 423-475.

J. E., and Mueller, W. J. Impact and change: a study of counseling relationships. New York: Appleton-Century-Crofts, 1966.

J. E. H. Some implications of social psychological theory for research on the handicapped. In L. H. Lofquist (Ed.), Psychological Research and Rehabilitation, Washington, D. C., American Psychological Association, 1960.

J. E. R. F. N. Progressiveness and traditionalism: basic factors of educational attitudes. J. Soc. Psychol., 1958, 68, 111-135.



ger, F. N. Factor invariance in the measurement of attitudes toward education. Educ. and Psychol. Meas. 1961, 21 (2), 273-285.

ger, F. N., and Kaya, E. The construction and factor analytic validation of scales to measure attitudes toward education. Educ. and Psychol. Meas., 1959, 19, 13-29.

, C. Progress report on social service in Japan. (Mimeographed report) Tokyo: Japanese National Committee of the International Conference of Social Work, 1964.

S. A. Educating exceptional children. Boston: Houghton, Mifflin, 1962.

erg, O. Tensions affecting international understanding. New York: Social Science Research Council, Bulletin 52, 1950.

ohn, Florence R., and Strodtbeck, F. L. Variations in value orientations. Evanston: Row, Peterson, 1961.

American students' contacts with and attitudes toward foreign students. Unpublished doctoral dissertation, Michigan State University, 1962.

A. S. The interrelation of belief systems and educational values: a study of the educational attitudes of individual school teachers. Unpublished doctoral dissertation, New York University, 1963.

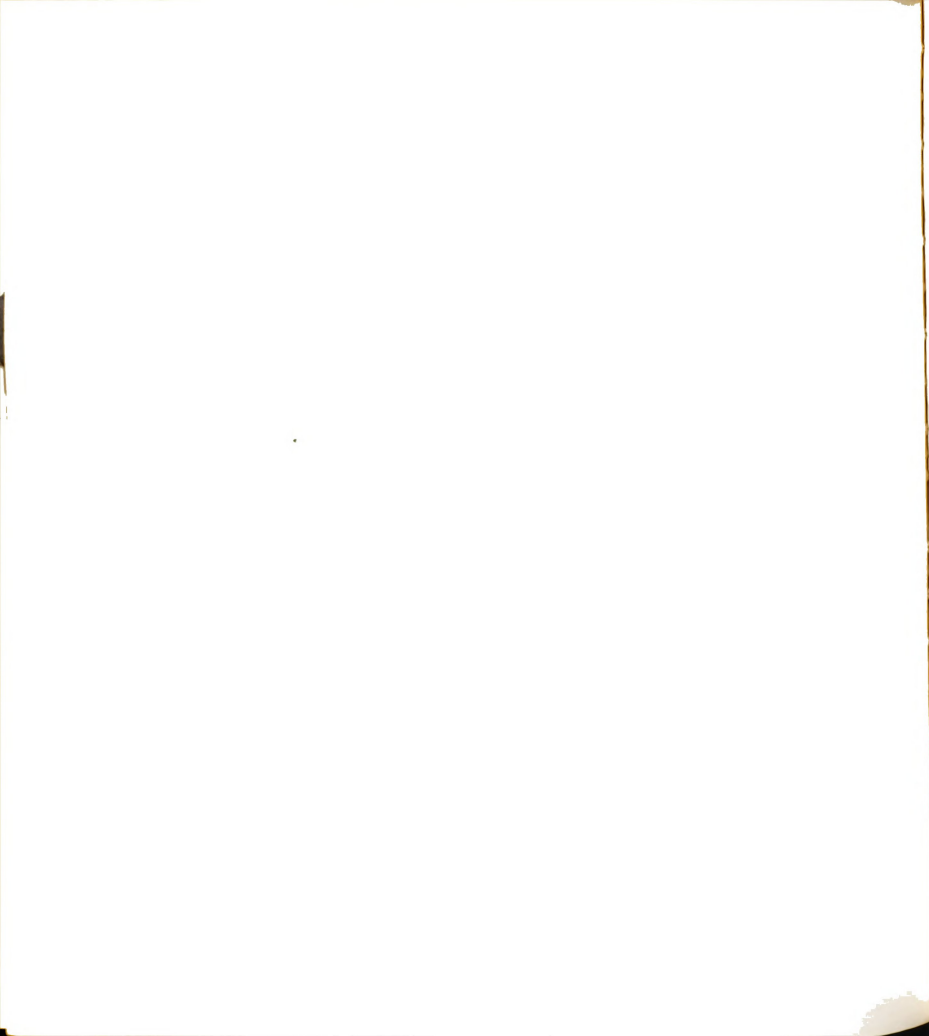
C. Y. Extension of multiple range tests to group means with unequal numbers of replications. Biometrics, 1956, 12, 307-310.

us, W. C. Acceptance-rejection and exceptionality. except. Child., 1956, 22 (8), 328-331.

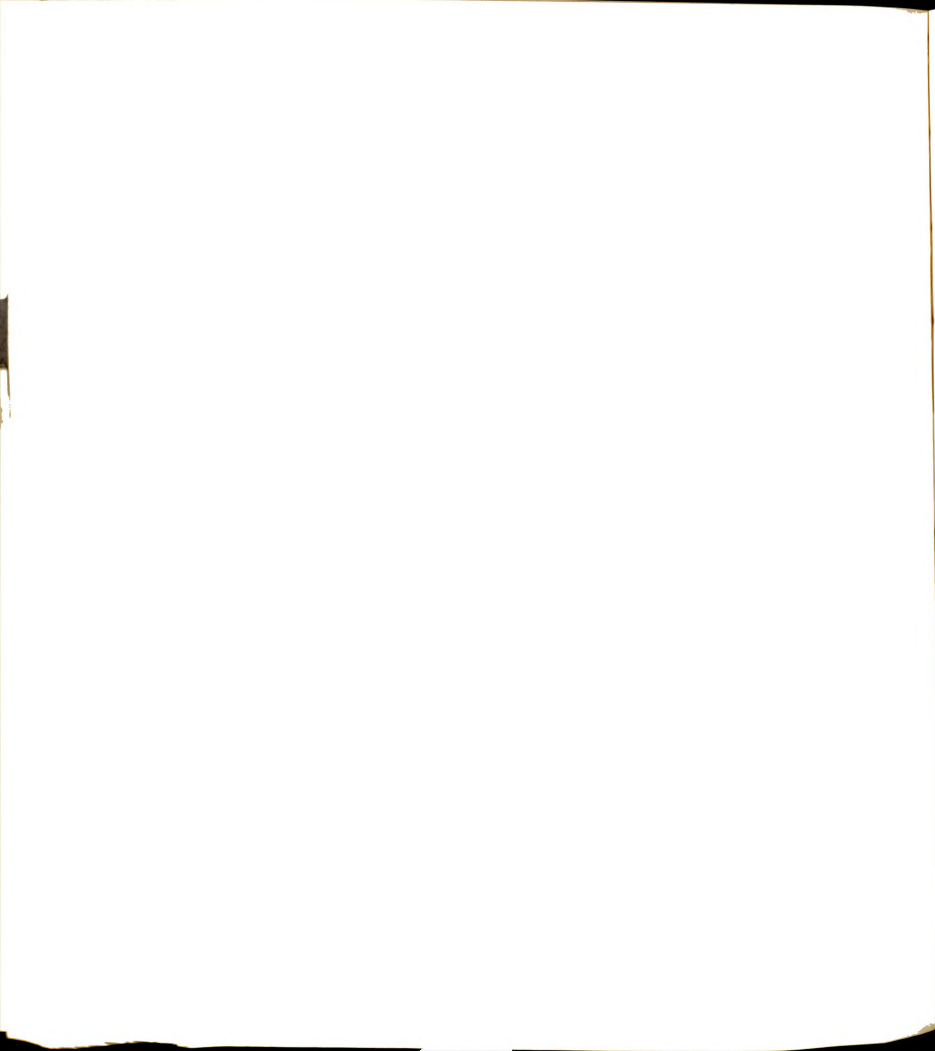
us, W. C. Juvenile delinquency. Dept. of Classroom Teachers, Amer. Educ. Res. Assn. of the National Educ. Assn., 1958.

e, W. A., and LeCompte, Guvey. Attitudes of American and Turkish college students toward disabled persons. Personnel & Guidance J., 1966, 45, 353-358.

J. L. A comparison of attitudes toward handicapped children between three groups of teachers as expressed in a Q-sort. Unpublished doctoral dissertation, University of New Mexico, 1965.



- , D. The passing of traditional society. New York: Free Press of Glencoe, 1958.
- , S. A. Conceptual framework for special education. Except. Child., 1961, 28 (2), 83-90.
- , J. C. Multiple scalogram analysis: a set theoretical model for analyzing dichotomous items. Educ. and Psychol. Meas., 1963, 23, 501-524.
- , J. C. An IBM-7090 Program for Guttman-Lingoes Multi-dimensional Scalogram Analysis - I. Ann Arbor: University of Michigan, 1965.
- , R., Watson, Jeanne, and Westley, B. Planned change, New York: Harcourt, Brace and World, 1958.
- S. M. The value patterns of democracy. Amer. Soc. Rev., 1963, 28 (4).
- C. P. Social systems. Princeton: Van Nostrand, 1960.
- n, J. Man's nature and the aims of his education. n W. K. Frankena (Ed.), Philosophy of education, New York: Macmillan, 1965.
- r, Ann L. W. Adolescent attitudes toward self and toward others. Unpublished doctoral dissertation, University of Wisconsin, 1965.
- n, L. Physical disability as a social psychological problem. J. Soc. Issues, 1948, 4 (4), 2-10.
- n, L. Somatopsychology of physical disability. In . M. Cruickshank (Ed.), Psychology of exceptional children and youth. Englewood Cliffs: Prentice-Hall 1963.
- A. P. American social theory: a critique and a proposal. New York: Harper, 1964.
- M. B. (Ed.) Innovation in education. New York: Teachers College, Columbia University, 1964.
- , J. C. Understanding the Japanese mind. New York: Philosophical Library, Inc., 1954.
- C. Varieties of human value. Chicago: Univer. of Chicago Press, 1956.



- Murphy, A. T. Attitudes of educators toward the visually handicapped. Sight-Saving Review, 1960, 30 (3).
- Norbeck, E. Changing Japan. New York: Holt, Rinehart and Winston, 1965.
- Osgood, C. The measurement of meaning. Urbana: Univer. of Illinois Press, 1957.
- Palgi, Phyllis. Attitude towards the disabled amongst immigrants from middle eastern countries (Hebrew). Public Health, 1962, 66-71.
- Parsons, T., and White, W. The link between character and society. In S. M. Lipset and Leo Lowenthal (Eds.), Culture and social character. New York: Free Press of Glencoe, 1961.
- Passin, H. Modernization and the Japanese intellectual: some comparative observations. In J. B. Marius (Ed.), Changing Japanese attitudes toward modernization. Princeton: Princeton Univer. Press, 1965(a).
- Passin, H. Society and education in Japan. New York: Teachers College, Columbia University, 1965(b).
- Payne, S. L. The art of asking questions. Princeton: Princeton Univer. Press, 1951.
- Reischauer, E. O. Japan past and present. Tokyo: Charles E. Tuttle, 1952.
- Richardson, S. A., Goodman, N., Hastorf, A. H., and Dornbusch, S. M. Cultural uniformity in reaction to physical disabilities. Amer. Soc. Rev., 1961, 26, 241-247.
- Riley, Matilda W. Sociological research. New York: Harcourt, Brace and World, 1963.
- Riley, Matilda W., Riley, J. W., and Jackson, T. Sociological studies in scale analysis. New Brunswick: Rutgers Univer. Press, 1954.
- Robinson, Mary E. Education for social change. Washington, D. C.: Brookins Institution, 1961.
- Roeher, G. A. A study of certain public attitudes toward the orthopedically disabled. Doctoral dissertation, New York Univer., 1959.



- Rogers, E. M. Diffusion of innovations. New York: Free Press of Glencoe, 1962.
- Rokeach, M. The open and closed mind. New York: Basic Books, 1960.
- Rosenberg, M. J. Cognitive structure and attitudinal affect. J. of Abn. and Soc. Psych., 1956, 53, 367-372.
- Rosenberg, M. J. A structural theory of attitude dynamics. Publ. Opin. Q., 1960, 24 (2), 319-340.
- Ruble, W. L., Kiel, D. F., and Rafter, Mary E. Calculation of least squares (regression) problems on the LS routine. Stat. Series Description No. 7, Agricultural Experiment Station, Michigan State University, 1966.
- Ruble, W. L., Kiel, D. F., and Rafter, Mary E. One-way analysis of variance with unequal number of replications permitted, (UNEQ1 Routine). Stat. Series Description No. 13, Agricultural Experiment Station. Michigan State University, 1966.
- Ruble, W. L., Paulson, Sara J., Rafter, Mary E. Analysis of covariance and analysis of variance with unequal frequencies permitted in cells -- no interaction effects. (LS Routine - Temporary). Stat. Series Description No. 115, Agriculture Experiment Station, Michigan State University, May, 1966.
- Ruble, W. L., and Rafter, Mary E. Calculation of basic statistics when missing data is involved, (The MDSTAT Routine). Stat. Series Description No. 6, Agricultural Experiment Station, Michigan State University, 1966.
- SCAP, Education in new Japan, Vol. 1. Tokyo: Supreme Command Allied Powers, 1952.
- Schneps, M., and Coox, A. D. (Eds.) The Japanese image. Philadelphia: Orient/West Inc., 1965.
- Schinzinger, R. Peculiarities of Japanese character. In M. Schneps and A. D. Coox (Eds.), The Japanese image. Philadelphia: Orient/West Inc., 1965.
- Shibutani, T. Society and personality. Englewood Cliffs, New Jersey: Prentice-Hall, 1961.

- Silberman, B. S. (Ed.) Japanese character and culture.
Tuscon: Univer. of Arizona Press, 1962.
- Siller, J. E. Personality determinants of reaction to
physical handicap. Amer. Psychologist, 1962, 17, 338.
- Siller, J. E. Reactions to physical disability. Rehabilit.
Counsel. Bull., 1963, 7, 12-16.
- Siller, J., and Chipman, A. Factorial structure and
correlates of the attitudes toward disabled persons
scale. Educ. and Psych. Meas. 1964, 24, 831-840.
- Sinha, B. K. Maternal attitudes and values in respect to
emotionally disturbed and physically disabled persons.
Unpublished doctoral dissertation, Michigan State
University, 1966.
- Smith, M. B. Personal values as determinants of a
political attitude. J. of Psych., 1949, 23,
477-486.
- Smith, M. B. Attitudes and adjustment in cross-cultural
contact: recent studies of foreign students. J. soc.
Issues, 1965, 12, 1.
- Smith, Inez L. The invariance of educational attitudes and
their relations to social attitudes: an inverse
factor analytic study. Unpublished doctoral dissertation,
New York Univer., 1963.
- Smith, R. J., and Beardsley, R. K. Japanese culture.
Chicago: Aldine Pub. Co., 1962.
- Snow, P. G. A scalogram analysis of political development.
Amer. Behav. Scientist, 1966, 9, 33-36.
- Sommers, Vita S. The influence of parental attitudes and
social environment of the personality development of
the adolescent blind. New York: American Foundation
for the Blind, 1944.
- Spranger, E. Lebensform (Types of Men). (P.J.W. Pigors,
translator), New York: Stechert, 1928.
- Stagner, R. Attitudes. In W. S. Monroe (Ed.), Encyclopedia
of educational research. New York: MacMillan, 1941.
- Stauffer, S. A. Social research to test ideas. New York:
Free Press of Glencoe, 1962.

- State of Israel, Vocational Rehabilitation Council. An empirical study of disabled persons in Israel in need of vocational rehabilitation (Mimeographed Report). Tel Aviv: Author, 1965.
- Stefflre, B. (Ed.) Theories of counseling, New York: McGraw-Hill, 1965.
- Stern, G. G. Measuring noncognitive variables in research on teaching. In N. L. Gage (Ed.), Handbook of research on teaching. Chicago: Rand McNally, 1963.
- Stouffer, S. A. An overview of the contributions to scaling and scale theory. In S. A. Stouffer et al., Measurement and prediction. Princeton: Princeton Univer. Press, 1950.
- Stouffer, S. A. (Ed.) Measurement and prediction. Princeton: Princeton Univer. Press, 1950.
- Straus, R. Social change and the rehabilitation concept. In M. B. Sussman (Ed.), Sociology and Rehabilitation. Washington: Amer. Sociological Assn., 1966.
- Suchman, E. A. The intensity component in attitude and opinion research. In S. A. Stouffer, et al. Measurement and prediction. Princeton: Princeton Univer. Press, 1950.
- Suchman, E. A. Public opinion research across national boundaries. Publ. Opin. Q., 1958, 22 (2).
- Suchman, E. A. An analysis of bias in survey research. Publ. Opin. Q., 1962, 24, 102-111.
- Suchman, E. A. The comparative method in social research. Rural Soc., 1964, 29 (2), 123-137.
- Suchman, E. A., and Guttman, L. A solution to the problem of question bias. Publ. Opin. Q., 1947, 2, 445-455.
- Sussman, M. B. (Ed.) Sociology and rehabilitation. Washington: Amer. Sociological Assn., 1966.
- Taguchi, T. (Ed.) Rehabilitation of the physically handicapped in Japan. Tokyo: Japanese Society for Rehabilitation of the Disabled, 1965(a).
- Taguchi, T. (Ed.) The rehabilitation program for the disabled in Pacific and southeast Asian countries. Tokyo: Japanese Society for Rehabilitation of the Disabled, 1965(b).

- Tanaka, J., and Osgood, C. E. Cross-culture, cross-concept and cross-subject generality of affecting meaning system. J. Pers. and soc. Psychol., 1965, 2, 143-153.
- Taylor, E. J. (Ed.) Rehabilitation and world peace. New York: Int. Soc. for the Welfare of Cripples, 1960.
- Taylor, J. L. A study of the relationship between attitudes toward education and the extent to which teachers participate in certain professional activities. Unpublished doctoral dissertation, Arizona State University, 1963.
- Trump, J. L. Guide to better schools. Chicago: Rand McNally, 1961.
- United Nations. Study on legislative and administrative aspects of rehabilitation of the disabled in selected countries (Brief report). New York: Author, 1964.
- UNESCO. Comparative cross-national research. Int. Soc. Sci. Bull., 1955, 7 (4).
- UNESCO. Opinion surveys in developing countries. Int. Soc. Sci. J., 1963, 15 (1).
- UNESCO. Sociology of development in Latin America. Int. Soc. Sci. J., 1963, 15 (4).
- UNESCO. Data in comparative research. Int. Soc. Sci. J., 1964, 16 (1).
- Waisanen, F. B. A notation technique for scalogram analysis. The Soc. Q., 1960, 1 (4), 245-252.
- Waisanen, F. B. Finding a place in contemporary mass society: a problem of roles. Dept. of Social Sci., Univer. College, Michigan State Univer., 1962.
- Ward, J. H., Jr. Multiple linear regression models. In H. Borko (Ed.), Computer applications in the behavioral sciences. Englewood Cliffs: Prentice-Hall, 1962.
- Warren, Sue A., and Turner, D. R. Attitudes of professionals and students toward exceptional children. Train. Sch. Bull., 1966, 62, 136-144.
- Whiteman, M., and Luckoff, I. F. Public attitudes toward blindness. The new outlook for the blind, 1962, 153-158.



- Williams, R. American society. New York: Knopf, 1963.
- Woodruff, A. D., and Di Vesta, F. J. The relationship between values, concepts and attitudes. Educ. and Psych. Meas., 1948, 8, 645-660.
- Wrenn, C. G. The counselor in a changing world. Washington, D. C.: Amer. Pers. and Guidance Assn., 1962.
- Wright, Beatrice A. Physical disability--a psychological approach. New York: Harper and Brothers, 1960.
- Yuker, H. E., Attitudes as determinants of behavior. J. of Rehabil., 1965, 31, 15.
- Yuker, H. E., Block, J. R., and Campbell, D. A. A scale to measure attitudes toward disabled persons. Human Resources Study No. 5. Albertson, N. Y.: Human Resources Foundation, Division of Abilities, Inc., 1960.
- Zetterberg, H. L. On theory and verification in sociology. Totawa, N. J.: Bedminster Press, 1963.

ADDENDUM TO REFERENCES

- Dean, J. T. An analysis of attitudes toward education, theological orientations, interpersonal values, and educational experience. Unpublished doctoral dissertation, Michigan State University, 1967.
- Dickie, R. F. An investigation of differential attitudes toward the physically disabled, blind persons, and attitudes toward education and their determinants among various occupational groups in Kansas. Unpublished doctoral dissertation, Michigan State University, 1967.
- Green, J. H. Attitudes of special educators versus regular teachers toward the physically handicapped and toward education. Unpublished doctoral dissertation, Michigan State University, 1967 (c. Sept.).
- Heater, W. H. Attitudes of ministers toward mental retardation and toward education: their nature and determinants. Unpublished doctoral dissertation, Michigan State University, 1967 (c. June).
- Kreider, P. E. The social-psychological nature and determinants of attitudes toward education and toward physically disabled persons in Belgium, Denmark, England, France, The Netherlands, and Yugoslavia. Unpublished doctoral dissertation, Michigan State University, 1967.
- Mader, J. B. Attitudes of special educators toward the physically disabled and toward education. Unpublished doctoral dissertation, Michigan State University, 1967.
- Palmerton, K. E. Attitudes of college counselors toward education and toward physically disabled persons. Unpublished doctoral dissertation, Michigan State University, 1967 (c. Sept.).
- Proctor, Doris I. The relationships between knowledge of disabilities, kind and amount of experience, and classroom integration of exceptional children. Unpublished doctoral dissertation, Michigan State University, 1967 (c. June).
- Sinha, B. K. Maternal attitudes and values in respect to emotionally disturbed and physically disabled persons. Unpublished doctoral dissertation, Michigan State University, 1966.
- Weir, R. C. An investigation of differential attitudes toward the physically disabled, deaf persons, and attitudes toward education, and their determinants among various occupational groups in Kansas. Unpublished doctoral dissertation, Michigan State University, 1968 (c. June).

APPENDICES

APPENDIX A

Statistical Material

Means, Standard Deviations,
and Number of Respondents for
63 Variables for the Total
Sample, Males, and Females by
Occupational Groups

TABLE 38. . . . Means, standard deviations and number of respondents for 63 variables by total, male, and female respondents for the SER occupational group.

Variable	Total			Male			Female		
	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
1. Sex	1.68	0.47	50	1.00	0.00	16	2.00	0.00	34
2. Support	13.04	3.89	50	14.12	3.32	16	12.53	4.08	34
3. Conformity	17.82	2.83	50	18.25	2.62	16	17.62	2.94	34
4. Recognition	7.00	2.87	50	7.87	2.58	16	6.59	2.94	34
5. Independence	17.72	4.47	50	16.25	3.23	16	18.41	4.83	34
6. Benevolence	21.22	3.10	50	21.50	2.73	16	21.09	3.29	34
7. Leadership	10.28	4.09	50	9.94	4.01	16	10.44	4.17	34
8. Variety of Contact	10.64	2.32	50	9.94	2.69	16	10.97	2.08	34
9. Amount of Contact	6.78	1.63	50	6.81	1.17	16	6.76	1.83	34
10. Gain (Ed)	4.64	0.90	50	4.37	1.36	16	4.76	0.55	34
11. Enjoyment (Ed)	3.70	0.54	50	3.75	0.58	16	3.68	0.53	34
12. Alternative (Ed)	2.12	1.19	50	2.25	1.06	16	2.06	1.25	34
13. Age	35.68	7.10	50	34.31	4.66	16	36.32	7.98	34
14. Youth Community	2.44	0.95	50	2.37	1.09	16	2.47	0.90	34
15. Children	1.04	1.18	50	1.25	0.87	16	0.94	1.30	34
16. Income	8.36	3.54	50	7.19	2.32	16	8.91	3.89	34
17. Siblings	4.08	2.55	50	4.81	3.15	16	3.73	2.19	34
18. Importance of Religion	1.90	0.71	50	1.94	0.57	16	1.88	0.78	34
19. Personalism, job (amount)	4.84	1.58	50	4.62	1.41	16	4.94	1.67	34
20. Pers (Import)	2.92	0.75	50	2.87	0.81	16	2.94	0.74	34
21. Ed Self (amt)	5.42	0.86	50	5.50	0.82	16	5.38	0.89	34
22. Ed Self (comp)	3.80	0.45	50	3.81	0.54	16	3.79	0.41	34
23. Ed Father (comp)	3.36	0.83	50	3.37	0.89	16	3.35	0.81	34
24. Satisfaction E1 Ed	4.28	0.99	50	4.19	0.75	16	4.32	1.09	34

Table 38 (cont)

	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
25. Sat Sec Ed	3.90	0.97	50	3.81	0.91	16	3.94	1.01	34
26. Sat Univ	4.00	0.95	50	4.19	0.66	16	3.91	1.05	34
27. Sat Business	3.04	1.03	50	2.94	1.06	16	3.09	1.03	34
28. Sat labor	3.06	1.02	50	2.94	1.06	16	3.12	1.01	34
29. Sat loc govt	3.06	1.17	50	2.67	1.20	16	3.23	1.13	34
30. Sat Nar govt	3.26	1.21	50	3.12	1.31	16	3.32	1.17	34
31. Sat Health Serv	4.02	1.10	50	3.94	1.00	16	4.06	1.15	34
32. Sat Religion	3.02	1.17	50	3.06	1.24	16	3.00	1.15	34
33. Job change	1.16	0.42	50	1.12	0.34	16	1.18	0.46	34
34. Religion - practice	2.43	1.22	49	2.44	0.96	16	2.42	1.35	33
35. Change Health	2.68	1.13	50	3.00	0.82	16	2.53	1.24	34
36. Ch Child Rear	2.92	0.60	50	3.00	0.37	16	2.88	0.69	34
37. Ch Birth Cont	1.98	0.59	50	2.06	0.57	16	1.94	0.60	34
38. Ch Automat	3.04	0.64	50	3.12	0.72	16	3.00	0.60	34
39. Ch Pot lead	2.92	0.75	50	3.00	0.82	16	2.88	0.73	34
40. Ed Local Aid	3.26	0.69	50	3.31	0.60	16	3.23	0.74	34
41. Ed Federal Aid	3.24	0.66	50	3.25	0.58	16	3.23	0.70	34
42. Ed Planning	2.08	0.79	50	2.19	0.66	16	2.03	0.85	33
43. Self Change	2.64	0.56	50	2.69	0.48	16	2.62	0.60	34
44. Change Role	2.70	0.73	50	2.50	0.63	16	2.79	0.78	34
45. Change Rtn Job	3.00	0.63	50	3.00	0.63	16	3.00	0.65	34
46. Personalism - Oth	1.64	0.69	50	1.69	0.60	16	1.62	0.74	34
47. Planning Need	3.54	0.54	50	3.37	0.50	16	3.62	0.55	34
48. HP Primary Cont	5.89	2.01	47	4.06	1.39	16	5.68	2.12	31
49. HF Variety Cont	6.62	3.29	47	6.00	3.22	16	6.93	3.34	31
50. HF Amt Contact	3.47	1.68	47	3.69	1.52	16	3.35	1.72	31
51. HP - ease of avoidance	1.95	0.91	42	1.93	0.80	15	1.96	0.98	27
52. HP - gain	1.27	0.58	45	1.44	0.81	16	1.17	0.38	29
53. HP - income	4.38	1.50	13	4.50	1.41	8	4.20	1.79	5
54. HP - enjoyment	3.02	0.71	47	3.06	0.68	16	3.00	0.73	31
55. HP - alternative	1.61	1.11	39	1.80	1.21	15	1.50	1.06	24
56. Contact Amt - Mental Retarded	4.46	1.81	50	4.87	0.50	16	4.26	1.35	34
57. Contact Amt - Emot Disturb	2.16	1.59	50	2.50	1.67	16	2.00	1.56	34
58. HP - Content Total	49.70	3.05	50	50.06	3.28	16	49.53	2.97	34
59. HP-Intensity	62.54	6.32	50	65.31	6.94	16	61.23	5.66	34

Table 38		Content (Mean)		S.D.		N		Mean		S.D.		N	
60	Ed Trad Content	25.50		2.81	50	24.63		3.24	16	25.88	2.63	34	
61	Ed Trad Intent	33.26		3.42	50	34.06		3.02	16	32.88	3.57	34	
62	Ed Prog Content	28.50		2.61	50	28.69		2.75	16	28.41	2.58	34	
63	Ed Prog Intent	31.42		3.70	50	32.64		3.04	16	30.71	3.80	34	

TABLE 39. Means, standard deviations and number of respondents for 63 variables by total, male and female respondents for the F occupational group

Variable	Total			Female		
	Mean	S. D.	N	Mean	S. D.	N
1. Sex	1.80	0.40	41	2.00	0.00	33
2. Support	13.10	3.80	41	13.06	3.90	33
3. Conformity	18.63	2.49	41	18.88	2.62	33
4. Recognition	7.32	2.65	41	7.52	2.48	33
5. Independence	18.34	5.19	41	17.76	5.15	33
6. Benevolence	19.27	4.78	41	19.52	4.76	33
7. Leadership	10.12	4.14	41	9.61	4.37	33
8. Variety of Contact	10.76	1.73	41	10.82	1.67	33
9. Amount of Contact	7.49	0.95	41	7.42	1.03	33
10. Gain (Ed)	4.90	0.37	41	4.91	0.38	33
11. Enjoyment (Ed)	3.80	0.40	41	3.79	0.42	33
12. Alternative (Ed)	2.05	1.24	40	2.09	1.30	32
13. Age	41.41	7.60	41	40.67	7.31	33
14. Youth Community	2.98	0.72	41	3.09	0.63	33
15. Children	1.40	1.17	40	1.19	1.18	32
16. Income	11.62	7.28	39	12.39	7.96	31
17. Siblings	2.95	2.29	41	3.12	2.41	33
18. Importance of Religion	2.12	0.93	41	2.09	0.95	33
19. Personalism, job (amount)	4.61	1.07	41	4.58	1.12	33
20. Pers (Import)	2.80	0.81	41	2.73	0.80	33
21. Ed Self (amt)	6.00	0.55	41	5.94	0.56	33
22. Ed Self (comp)	3.95	0.38	41	3.97	0.30	33
23. Ed Father (comp)	3.46	0.92	41	3.61	0.83	33
24. Satisfaction E1 Ed	4.34	1.00	41	4.27	1.07	33
25. Sat Sec Ed	4.02	1.08	41	3.97	1.16	33

Table 39 - (cont)		Mean		S.D.		N		Mean		S.D.		N	
26.	Sat Univ	3.90		1.16		41		3.85		1.25		33	
27.	Sat Business	3.20		1.08		41		3.27		1.07		33	
28.	Sat Labor	3.17		1.22		41		3.12		1.19		33	
29.	Sat Loc govt	2.98		1.17		41		3.03		1.19		33	
30.	Sat Nat govt	2.85		1.20		41		2.94		1.22		33	
31.	Sat Health Serv	4.02		0.96		41		4.03		1.05		33	
32.	Sat Religion	3.37		1.22		41		3.39		1.27		33	
33.	Job change	1.07		0.35		41		1.06		0.35		33	
34.	Religion-Practice	2.54		1.21		41		2.45		1.25		33	
35.	Change Health	2.71		0.98		41		2.52		0.97		33	
36.	Ch Child Rear	2.88		0.56		41		2.91		0.58		33	
37.	Ch Birth Cont	2.10		0.70		41		2.09		0.72		33	
38.	Ch Automat	3.32		0.57		41		3.30		0.59		33	
39.	Ch Fol lead	3.10		0.66		41		3.12		0.70		33	
40.	Ed Local Aid	3.32		0.57		41		3.36		0.60		33	
41.	Ed Federal Aid	3.15		0.69		41		3.21		0.74		33	
42.	Ed Flanning	2.15		0.85		41		2.06		0.86		33	
43.	Self Change	2.63		0.54		41		2.61		0.50		33	
44.	Change - Role	2.63		0.70		41		2.70		0.68		33	
45.	Change Rtn Job	2.93		0.88		41		2.94		0.90		33	
46.	Personalism - Oth	1.88		0.75		41		1.88		0.78		33	
47.	Planning Need	3.47		0.60		40		3.56		0.56		32	
48.	HP Primary Cont	3.91		2.41		32		3.58		2.44		26	
49.	HP Variety Cont	8.68		0.90		28		8.64		0.90		22	
50.	HP Amt Contact	1.82		1.12		28		1.77		1.02		22	
51.	HP - ease of avoidance	2.47		1.19		15		2.36		1.12		11	
52.	HP - gain	1.08		0.39		26		1.10		0.45		20	
53.	HP - income	0.00		0.00		0		0.00		0.00		0	
54.	HP - enjoyment	2.58		0.83		24		2.78		0.81		18	
55.	HP - alternative	2.14		1.95		7		1.80		1.79		5	
56.	Contact Amt - Mental Retarded	1.57		1.11		40		1.41		0.91		32	

Table 39 (cont.)

	Mean	S.D.	N	Mean	S.D.	N
57. Contact Amt - Emot						
Disturb	1.26	0.85	39	1.16	0.73	31
58. HP - Content Total	51.42	3.95	40	51.94	4.13	32
59. HP - Intensity	56.82	8.71	40	56.81	8.82	32
60. Ed Trad Content	26.90	2.91	41	26.97	2.97	33
61. Ed Trad Intens	33.10	4.18	41	33.27	4.30	33
62. Ed Prog Content	29.17	2.72	41	29.48	2.62	33
63. Ed Prog Intens	32.63	3.52	41	32.79	3.96	33

TABLE 40. Means, standard deviations and number of respondents for 63 variables by total, male and female respondents for the M occupational group.

Variable	Total			Male		
	Mean	S.D.	N	Mean	S.D.	N
1. Sex	1.01	0.31	84	1.00	0.00	75
2. Support	12.85	4.14	84	12.89	4.03	75
3. Conformity	18.43	3.49	84	18.24	3.63	75
4. Recognition	7.96	2.67	84	8.00	2.79	75
5. Independence	16.85	4.61	84	16.91	4.79	75
6. Benevolence	17.80	4.59	84	17.75	4.74	75
7. Leadership	13.12	5.21	84	13.29	5.19	75
8. Variety of Contact	10.72	1.62	83	10.76	1.69	74
9. Amount of Contact	3.04	2.39	24	3.04	2.39	24
10. Gain (Ed)	2.22	1.70	23	2.22	1.70	23
11. Enjoyment (Ed)	3.32	0.85	25	3.32	0.85	25
12. Alternative (Ed)	2.96	1.71	24	2.96	1.71	24
13. Age	34.71	7.46	84	35.01	7.52	75
14. Youth						
Community	2.61	0.79	84	2.59	0.81	75
15. Children	0.95	1.13	83	1.05	1.16	74
16. Income	14.38	16.71	84	15.11	17.50	75
17. Siblings	3.89	2.43	84	3.81	2.35	75
18. Importance of Religion	1.95	0.82	84	4.26	1.13	73
19. Personalism, job (amount)	4.49	1.25	84	4.48	1.27	75
20. Pers (Import)	2.70	0.64	83	2.74	0.64	74
21. Ed Self (amt)	5.65	0.94	84	5.76	0.88	75
22. Ed Self (comp)	3.56	0.66	84	3.59	0.68	75
23. Ed Father (comp)	3.14	0.88	84	3.17	0.91	75
24. Satisfaction E1 Ed	4.23	0.92	84	4.32	0.86	75
25. Sat Sec Ed	4.02	0.92	84	4.08	0.87	75

Table 40 (cont)

	Mean	S. D.	N	Mean	S. D.	N
26. Sat Univ	3.92	1.15	84	3.99	1.12	75
27. Sat Business	3.14	1.15	84	3.16	1.17	75
28. Sat Labor	3.08	1.25	84	3.07	1.29	75
29. Sat Loc govt	2.81	1.25	84	2.80	1.27	75
30. Sat Nat govt	3.00	1.22	84	3.03	1.23	75
31. Sat Health Serv	3.81	1.08	84	3.76	1.09	75
32. Sat Religion	2.70	1.23	84	2.72	1.27	75
33. Job change	1.44	0.78	84	1.48	0.81	75
34. Religion practice	2.30	1.13	80	2.27	1.09	71
35. Change Health	2.91	1.07	80	2.94	1.03	71
36. Ch Child Rear	2.91	0.51	80	2.92	0.50	71
37. Ch Birth Cont	1.86	0.65	80	1.83	0.65	71
38. Ch Automat	3.44	0.57	80	3.48	0.56	71
39. Ch Pol Lead	3.06	0.87	84	3.05	0.88	75
40. Ed - Local Aid	3.02	0.66	84	3.08	0.65	75
41. Ed - Federal Aid	2.95	0.71	84	3.00	0.72	75
42. Ed Planning	2.36	0.87	84	2.39	0.87	75
43. Self Change	2.55	0.68	84	2.53	0.70	75
44. Change - Role	2.57	0.85	84	2.57	0.86	75
45. Change Rtn Job	3.06	0.78	84	3.14	0.77	75
46. Personalism - Oth	1.76	0.72	84	1.72	0.69	75
47. Planning Need	3.52	0.50	84	3.57	0.50	75
48. HP Primary Cont	4.65	2.10	72	4.59	2.17	66
49. HP Variety Cont	9.11	0.93	72	9.18	0.91	66
50. HP Amt Contact	2.19	1.38	72	2.42	1.36	66
51. HP - ease of avoidance	1.95	0.98	56	1.93	1.00	53
52. HP - gain	1.14	0.49	69	1.16	0.51	64
53. HP - income	2.83	1.72	6	2.83	1.72	6
54. HP - enjoyment	2.52	0.66	69	2.53	0.67	64
55. HP - alternative	1.55	1.16	38	1.58	1.18	36
56. Contact Amt - Mental Retarded	1.65	1.06	84	1.71	1.09	75

Table 40 (cont)		Mean	S.D.	N	Mean	S.D.	N
57.	Contact Amt - Emot Disturb	1.42	0.71	84	1.47	0.74	75
58.	HP - Content Total	50.69	5.02	84	50.69	4.95	75
59.	HP - Intensity	62.08	8.40	84	62.40	8.50	75
60.	Ed Trad Content	27.94	3.22	84	28.07	3.24	75
61.	Ed Trad Intens	32.54	4.60	84	32.77	4.61	75
62.	Ed Prog - Content	28.70	3.28	84	28.77	3.31	75
63.	Ed Prog - Intens	32.37	4.48	84	32.73	4.46	75

TABLE 41. Means, standard deviations and number of respondents for 63 variables by total, male, and female respondents for the occupational group.

Variable	Total			Male			Female		
	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
1. Sex	1.61	0.49	36	1.00	0.00	14	2.00	0.00	22
2. Support	13.00	3.66	36	12.79	2.39	14	13.14	4.32	22
3. Conformity	17.69	3.96	36	16.71	4.48	14	18.32	3.56	22
4. Recognition	8.81	3.11	36	9.93	3.75	14	8.09	2.45	22
5. Independence	17.53	6.43	36	16.07	5.92	14	18.45	6.70	22
6. Benevolence	17.64	4.24	36	17.36	5.47	14	17.82	3.38	22
7. Leadership	12.86	5.92	36	15.21	7.12	14	11.36	4.58	22
8. Variety of Contact	10.83	0.85	36	10.57	0.65	14	11.00	0.93	22
9. Amount of Contract	5.43	3.10	7	6.00	3.37	4	4.67	3.21	3
10. Gain (Ed)	3.00	2.19	6	3.00	2.31	4	3.00	2.83	2
11. Enjoyment (Ed)	3.00	1.15	7	2.25	0.96	4	4.00	0.00	3
12. Alternative (Ed)	1.43	0.53	7	1.50	0.58	4	1.33	0.56	3
13. Age	28.33	10.53	36	33.64	14.21	14	24.95	5.40	22
14. Youth									
Community	2.31	1.09	36	2.50	1.02	14	2.18	1.14	22
15. Children	0.44	1.25	36	1.07	1.89	14	0.05	0.21	22
16. Income	7.47	5.56	36	8.00	4.30	14	7.14	6.30	22
17. Siblings	3.89	3.36	36	4.79	4.39	14	3.32	2.46	22
18. Importance of Religion	1.57	0.56	35	1.79	0.43	14	1.43	0.60	21
19. Personalism, job (amount)	4.72	1.16	36	4.57	1.22	14	4.82	1.14	22
20. Pers (Import)	2.61	0.69	36	2.79	0.80	14	2.50	0.60	22
21. Ed Self (amt)	4.69	0.98	36	5.14	0.95	14	4.41	0.91	22
22. Ed Self (comp)	3.31	0.47	36	3.50	0.52	14	3.18	0.39	22
23. Ed Father (comp)	3.33	0.99	36	3.07	1.21	14	3.50	0.80	22
24. Satisfaction Ed	3.61	1.20	36	3.57	1.55	14	3.64	0.95	22



Table 41 (cont.)

	Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
25. Sat Sec Ed	3.58	1.18	36	3.43	1.45	14	3.68	0.99	22
26. Sat Univ	3.40	1.21	36	3.57	1.34	14	3.36	1.14	22
27. Sat Business	3.08	1.38	36	3.14	1.70	14	3.05	1.17	22
28. Sat Labor	3.17	1.00	36	3.29	1.07	14	3.09	0.97	22
29. Sat Lec govt	2.42	1.20	36	2.43	1.40	14	2.41	1.10	22
30. Sat Nat govt	2.92	1.18	36	2.79	1.42	14	3.00	1.02	22
31. Sat Health Serv	3.75	1.20	36	3.57	1.40	14	3.86	1.08	22
32. Sat Religious	2.83	1.00	36	2.79	1.19	14	2.86	0.89	22
33. Job change	1.40	0.61	36	1.43	0.51	14	1.45	0.67	22
34. Religion practice	1.89	1.04	36	2.50	1.09	14	1.50	0.80	22
35. Change Health	2.94	0.79	36	3.29	0.73	14	2.72	0.77	22
36. Ch Child Rear	2.94	0.47	36	3.00	0.55	14	2.91	0.41	22
37. Ch Rir:h Cont	2.17	0.77	36	1.93	0.92	14	2.32	0.65	22
38. Ch Automat	3.31	0.62	36	3.64	0.63	14	3.09	0.53	22
39. Ch Pol Lead	2.83	0.94	36	2.79	1.19	14	2.86	0.77	22
40. Ed - local Aid	2.89	0.67	36	3.07	0.62	14	2.77	0.69	22
41. Ed - Federal Aid	2.92	0.65	36	3.14	0.53	14	2.77	0.69	22
42. Ed Planning	2.46	0.82	35	2.36	0.84	14	2.52	0.81	21
43. Self Change	2.67	0.68	36	2.69	0.89	14	2.59	0.50	22
44. Change - Role	2.39	0.84	36	2.36	0.93	14	2.41	0.80	22
45. Change Rtn Job	2.61	0.84	36	2.50	0.94	14	2.68	0.78	22
46. Personalism - Oth	1.81	0.71	36	1.79	0.80	14	1.82	0.67	22
47. Planning Need	3.50	0.77	36	3.50	0.85	14	3.50	0.74	22
48. HP Primary Cont	4.52	2.11	29	4.64	2.38	11	4.44	2.01	18
49. HP Variety Cont	8.72	0.88	29	8.73	0.90	11	8.72	0.89	18
50. HP Amt Contact	1.83	1.20	29	2.18	1.40	11	1.61	1.04	18
51. HP - ease of avoidance	2.14	0.85	21	2.00	0.93	8	2.23	0.83	13
52. HP - gain	1.00	0.00	26	1.00	0.00	10	1.00	0.00	16
53. HP - income	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0
54. HP - enjoyment	2.59	0.75	27	2.73	0.65	11	2.50	0.82	16
55. HP - alternative	1.20	0.42	10	1.00	0.00	5	1.40	0.55	5

Table 41 (cont)		Mean	S.D.	N	Mean	S.D.	N	Mean	S.D.	N
56.	Contact Amt - Mental Retarded	1.67	1.17	36	2.14	1.35	14	1.36	0.95	22
57.	Contact Amt - Emot Disturb	1.28	0.66	36	1.57	0.94	14	1.09	0.29	22
58.	HP - Content Total	50.56	4.14	36	51.86	3.01	14	49.73	4.60	22
59.	HP - Intensity	61.31	9.17	36	66.21	7.21	14	58.18	9.04	22
60.	Ed Trad Content	27.83	2.89	36	26.79	3.17	14	28.50	2.56	22
61.	Ed Trad Intens	31.19	3.75	36	33.29	3.24	14	29.87	3.48	22
62.	Ed Prog - Content	28.25	2.79	36	28.21	2.61	14	28.27	2.96	22
63.	Ed Prog - Intens	31.39	4.15	36	33.71	3.50	14	29.91	3.90	22

APPENDIX B

Instrumentation

B-1 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

No. _____

2

E. D.

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 |

No. _____

3

E.D.

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 |

No. _____

4

E.D.

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 |

No. _____

5

E.D.

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 |
| 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. 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 |

No. _____

7

E.D.

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 B

Instrumentation

B-2 Survey of Interpersonal Values



SURVEY OF INTERPERSONAL VALUES

By LEONARD V. GORDON

DIRECTIONS

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

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

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

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

Example

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

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

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

You would leave the remaining statement unmarked.

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



Science Research Associates, Inc.
 259 East Erie Street, Chicago, Illinois 60611

A Subsidiary of IBM

To be free to do as I choose
To have others agree with me
To make friends with the unfortunate

To be in a position of not having to follow orders
To follow rules and regulations closely
To have people notice what I do

To hold an important job or office
To treat everyone with extreme kindness
To do what is accepted and proper

To have people think of me as being important
To have complete personal freedom
To know that people are on my side

To follow social standards of conduct
To have people interested in my well being
To take the lead in making group decisions

To be able to do pretty much as I please
To be in charge of some important project
To work for the good of other people

To associate with people who are well known
To attend strictly to the business at hand
To have a great deal of influence

To be known by name to a great many people
To do things for other people
To work on my own without direction

To follow a strict code of conduct
To be in a position of authority
To have people around who will encourage me

To be friends with the friendless
To have people do good turns for me
To be known by people who are important

To be the one who is in charge
To conform strictly to the rules
To have others show me that they like me

To be able to live my life exactly as I wish
To do my duty
To have others treat me with understanding

To be the leader of the group I'm in
To have people admire what I do
To be independent in my work

To have people act considerately toward me
To have other people work under my direction
To spend my time doing things for others

To be able to lead my own life
To contribute a great deal to charity
To have people make favorable remarks about me

APPENDIX B

Instrumentation

B-3 Personal Questionnaire

No. _____

Location _____

Male _____

Group _____

Female _____

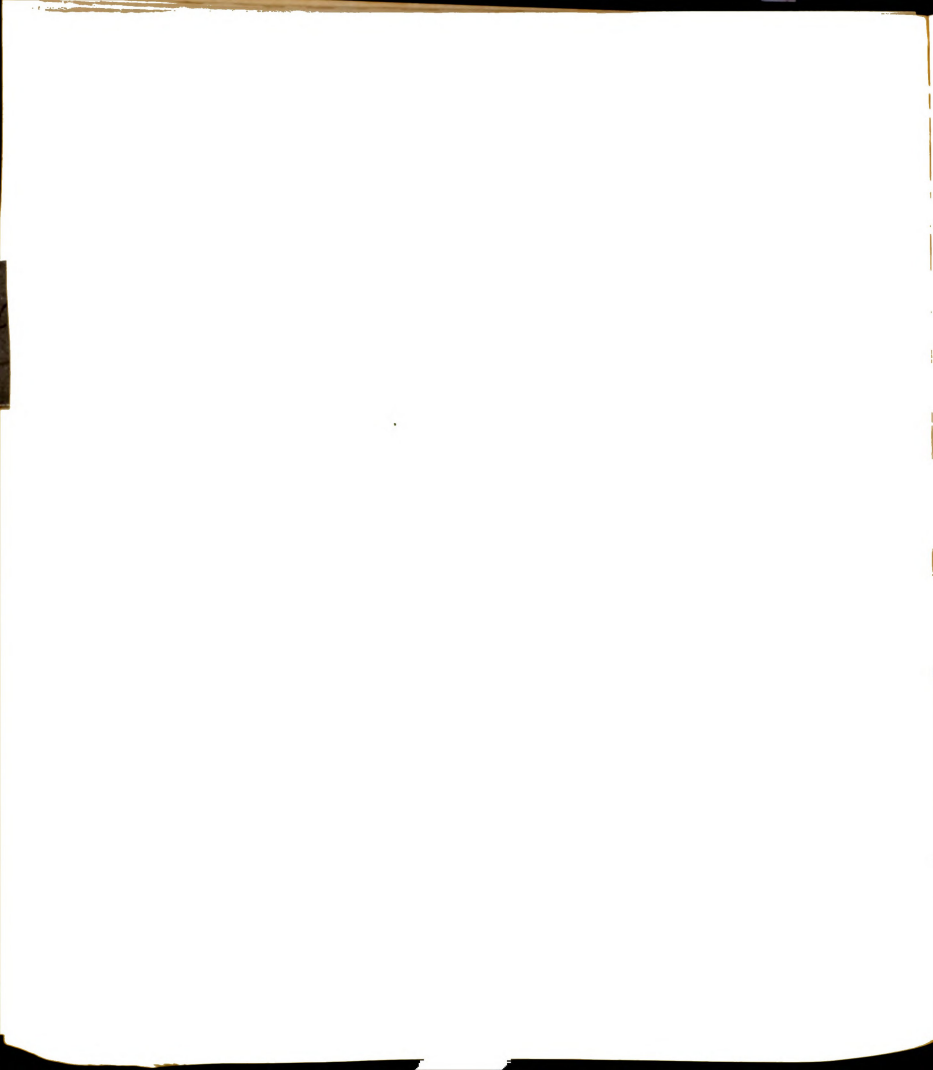
Date _____

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.



No. _____

PERSONAL QUESTIONNAIRE

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

SECTION I: Experiences with Schools and Education

1. Below are listed several different kinds of schools or educational divisions. In respect to these various kinds or levels of education, which one have you had the most professional or work experience with, or do you have the most knowledge about? This does not refer to your own education but to your professional work or related experiences with education. Please answer by circling the number of the group you select. Circle only one.

Elementary School (Grade School) 1

Secondary School (High School) 2

College or University 3

Other Types (Please Specify) _____ 4

I have had no such experience 5

2. Which other groups, in addition to the one indicated above, have you also had some professional or work experience with? Please circle the number of each additional group with which you have had some experience.

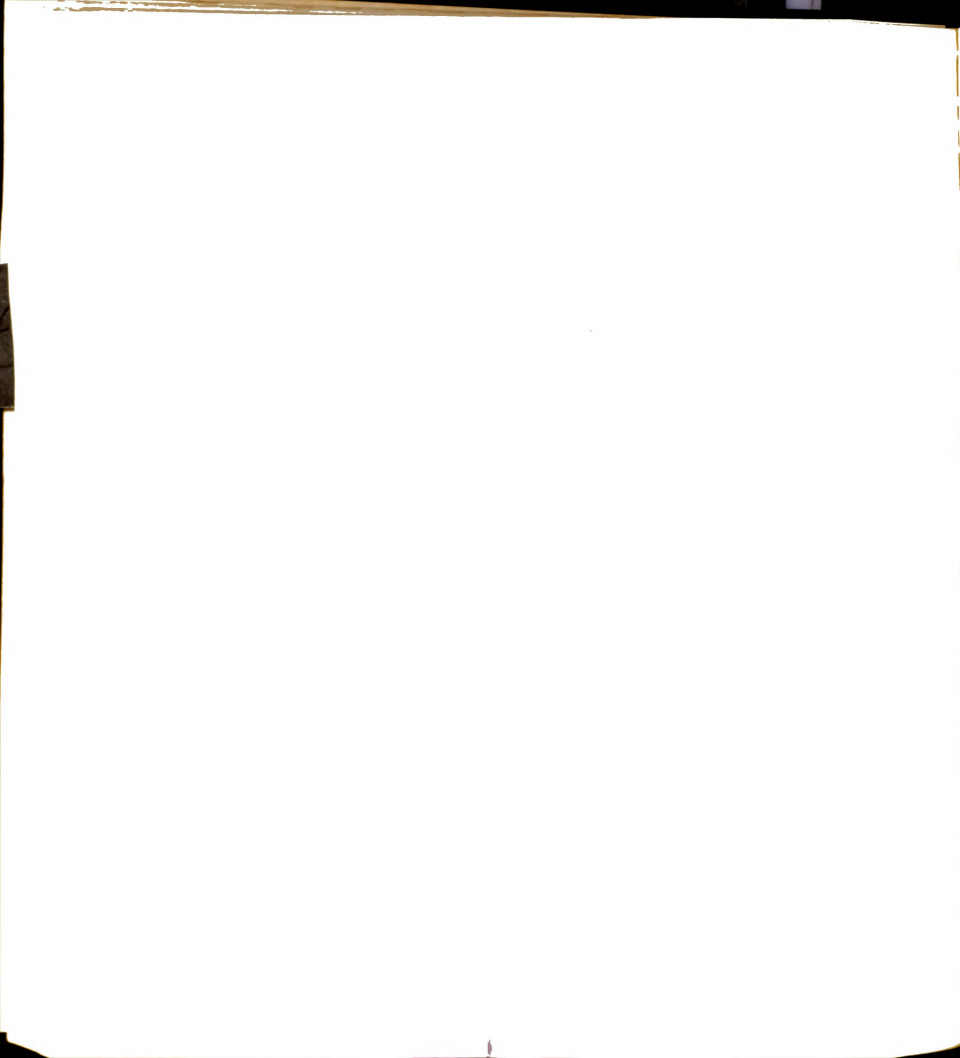
Elementary School (Grade School) 1

Secondary School (High School) 2

College or University 3

Other Types (Please specify) _____ 4

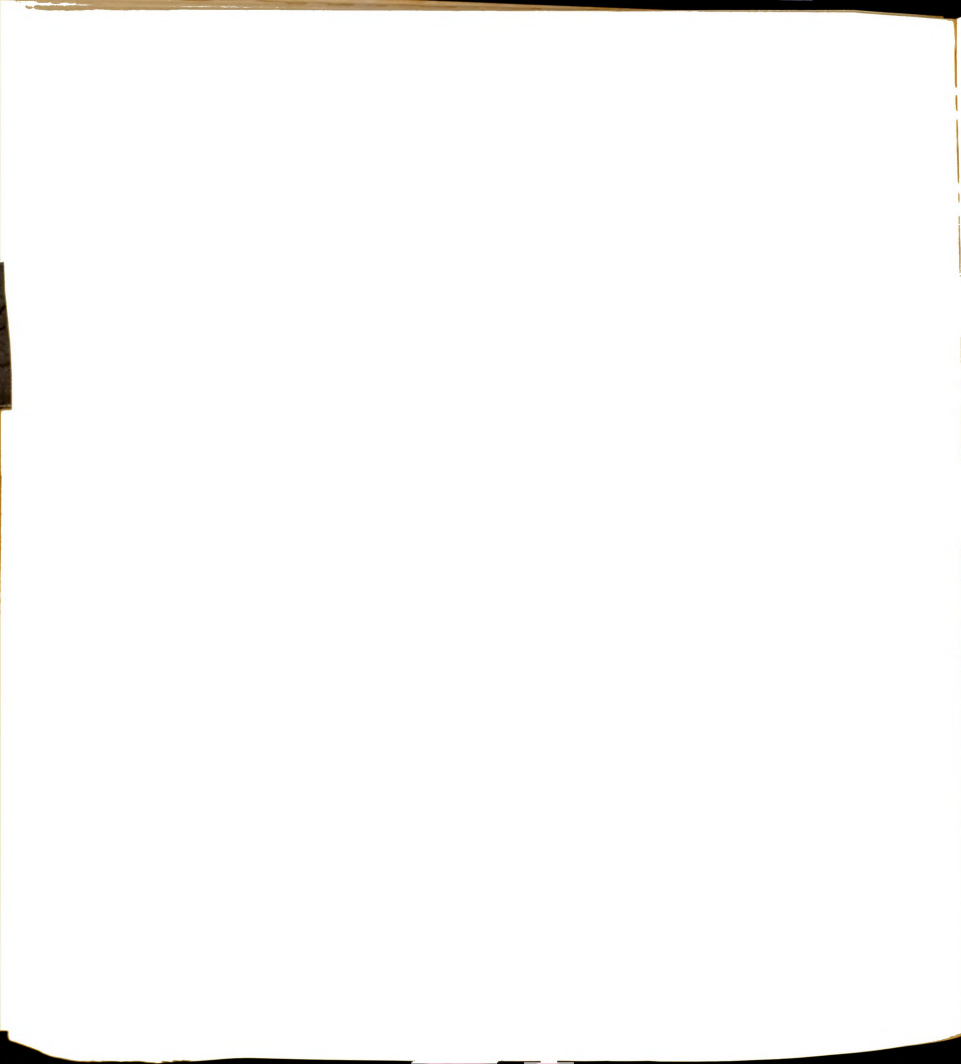
I have had no such experience 5



The following questions have to do with additional 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.

- I know little or nothing about education 1
- I have read or heard a little about schools and education 2
- I have studied about schools and education through reading, movies, lectures, or observations 3
- A neighbor of mine works in education 4
- A friend of mine works in education 5
- Some relative works in education 6
- My father, mother, brother, sister, wife (husband) or child works in education in any position, (professional or non-professional) 7
- I have worked in education, as a teacher, administrator, counselor, volunteer, etc. . . . 8
- Other (Please specify) _____ 9

On the preceding three questions you indicated that you have had no personal experience with any kind of education, please skip Questions #4 through #7. If you indicated that you have had experience with one or more of the levels of education listed, please answer Questions #4 through #7.



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

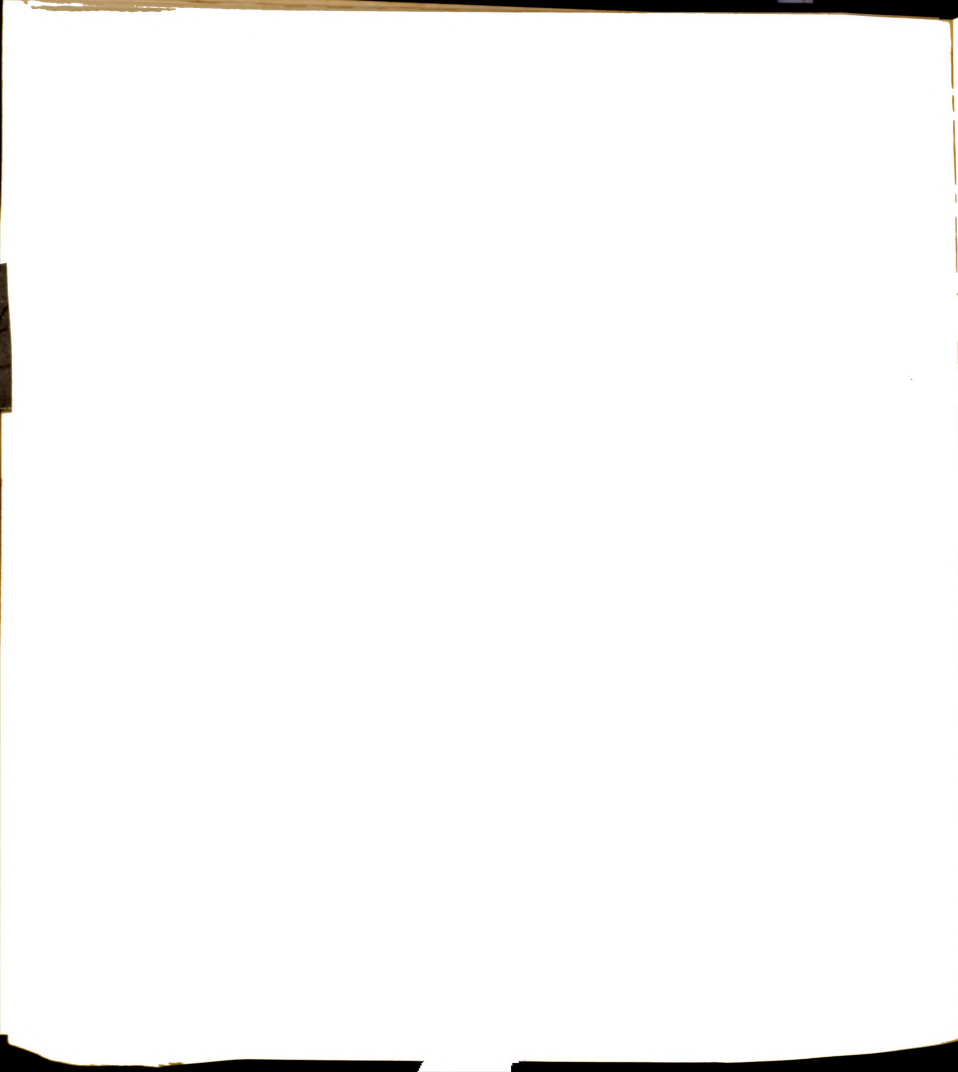
Less than three months	1
Between three and six months	2
Between six months and one year	3
Between one and three years	4
Between three and five years	5
Between five and ten years	6
Over ten years	7
Over fifteen years	8

ou have ever worked in education, about what percent
of your income was derived from such work?

Less than 10%	1
Between 10 and 25%	2
Between 25 and 50%	3
Between 50 and 75%	4
Between 75 and 100%	5

ou have ever worked in education, how have you
really felt about it?

Definitely have disliked it	1
Have not liked it very much	2
Have liked it somewhat	3
Have definitely enjoyed it	4



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 (or is) acceptable to you as a job?

do not know what other jobs were available
 acceptable 1
 other job was available 2
 other jobs available were not at all acceptable
 me 3
 other jobs available were not quite acceptable
 me 4
 other jobs available were fully acceptable to
 5

SECTION 2: Personal Information

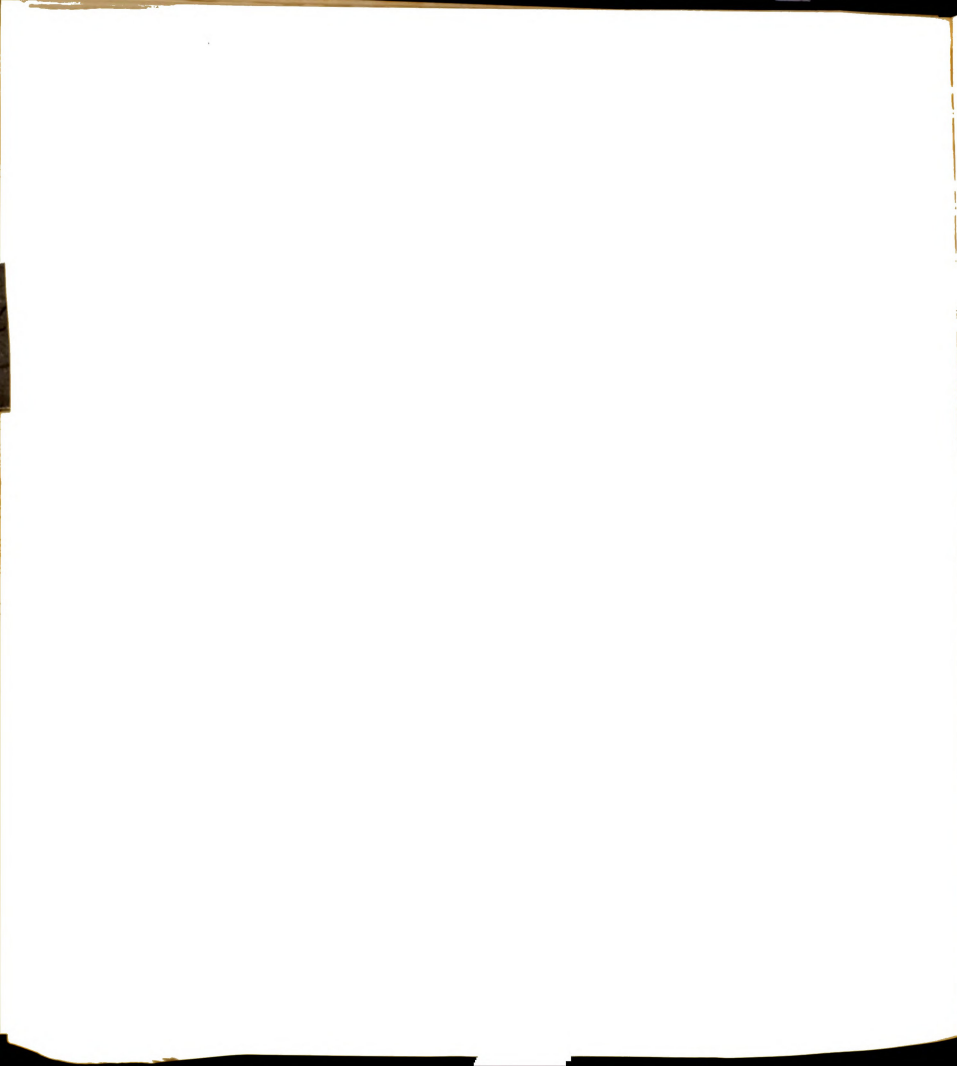
old are you? (Write age in box)

were you mainly reared or "brought up" in your
 (that is, up to the age of 15 or 16)?

entry 1
 entry Town 2
 y 3
 y Suburb 4

have you (or the main bread winner in your family)
employed during the past three years?

entry 1
 entry Town 2
 3
 Suburb 4



Where have you mainly lived during the past three years?

Countryside	1
Countryside Town	2
City	3
City Suburb	4

What is your marital status?

Married	1
Single	2
Divorced	3
Widowed	4
Separated	5

How many children do you have? (Please write number in

Please answer either A or B, whichever applies best to your present situation. Please read both choices, then answer only one.

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.

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.

According to your answer to Question 14, about how does
your income compare with that of most people in the
community where you live?

Much lower	1
Lower	2
About the same	3
Higher	4
Much higher	5

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

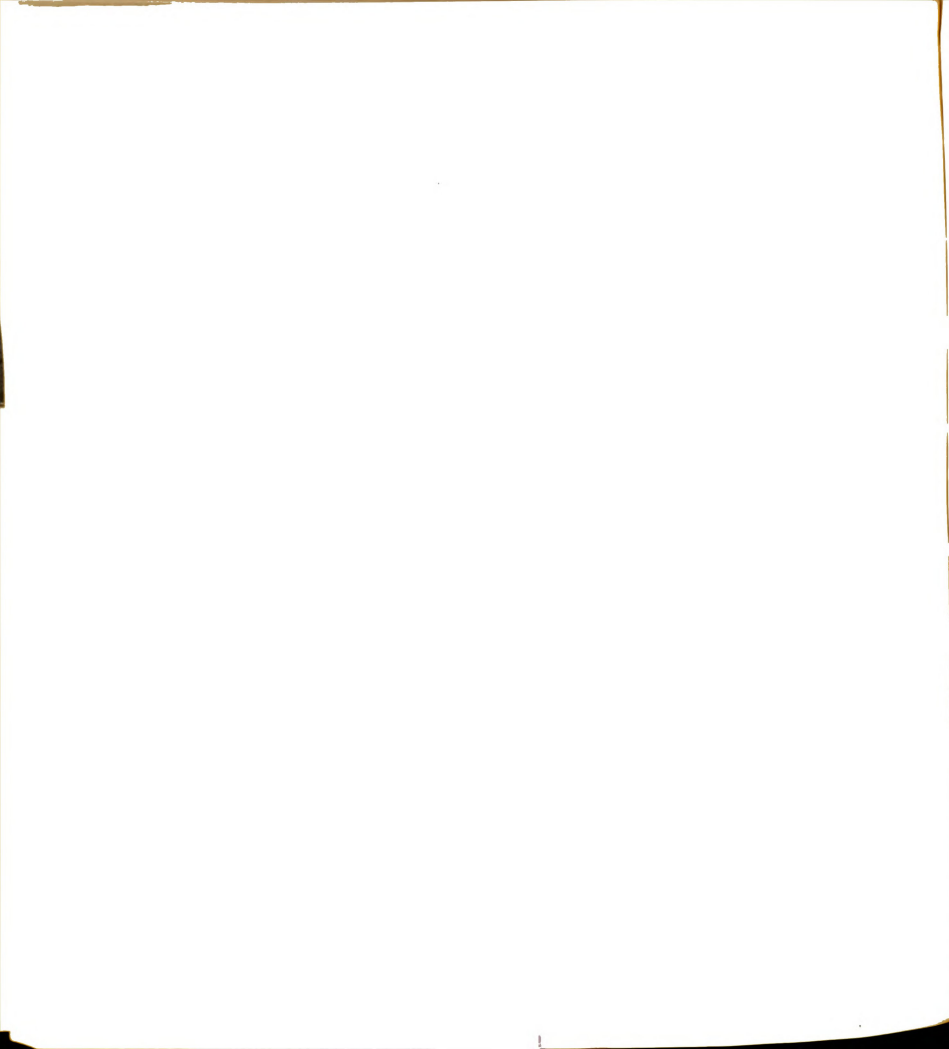
How many sisters have you? (Please write number
in box)

How does (or did) your father's income
compare with that of most people in the community in
which he lives (or lived)?

Much lower	1
Lower	2
About the same	3
Higher	4
Much higher	5

What is your religion?

Catholic	1
Protestant	2
Jewish	3
Other	4
Other (Please specify) _____	5



out how important is your religion to you in your
ly life?

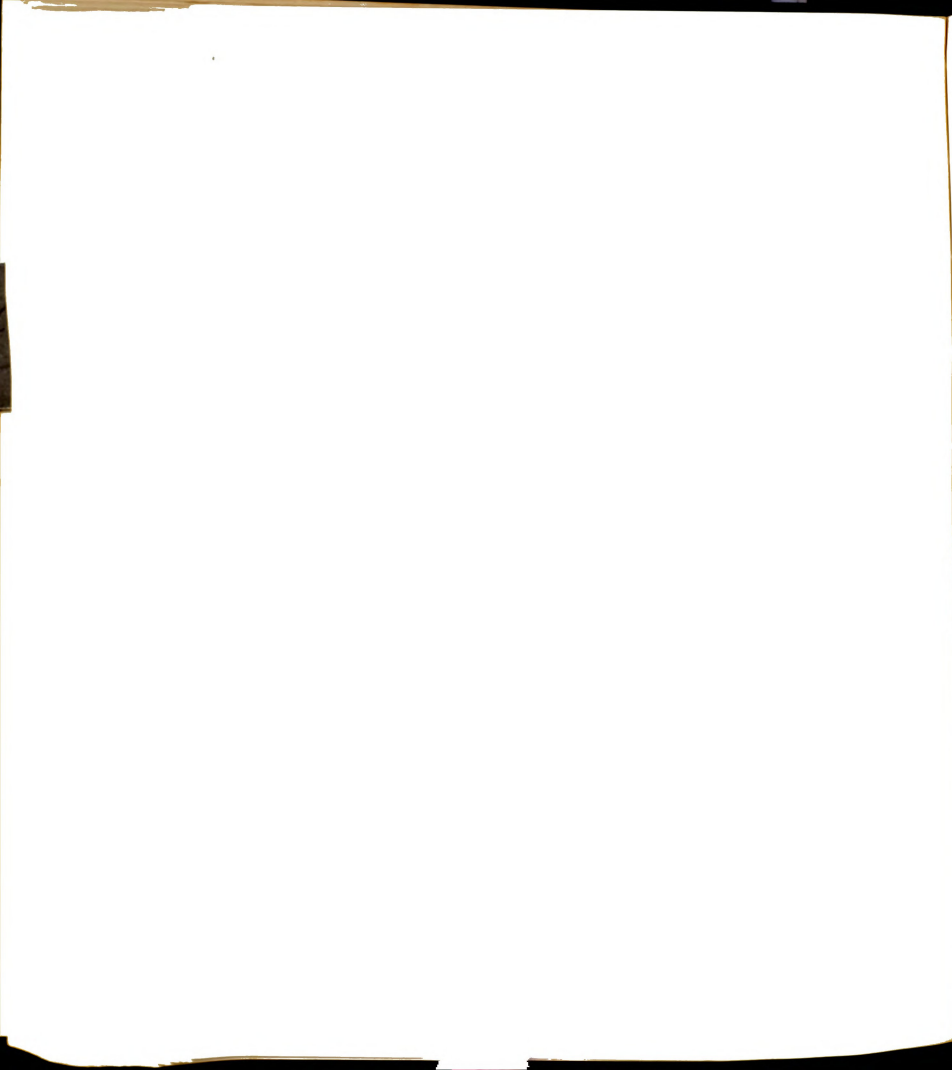
I have no religion	1
Not very important	2
Fairly important	3
Very important	4

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
I do not usually talk or make contact with other adult persons where I am employed . . .	2
Less than 10%	3
Between 10 and 30%	4
Between 30 and 50%	5
Between 50 and 70%	6
Between 70 and 90%	7
More than 90%	8

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



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, those who work at the same job, trade, or profession, or in the same place that you do, or that is an otherwise contact in the pursuit of your job.

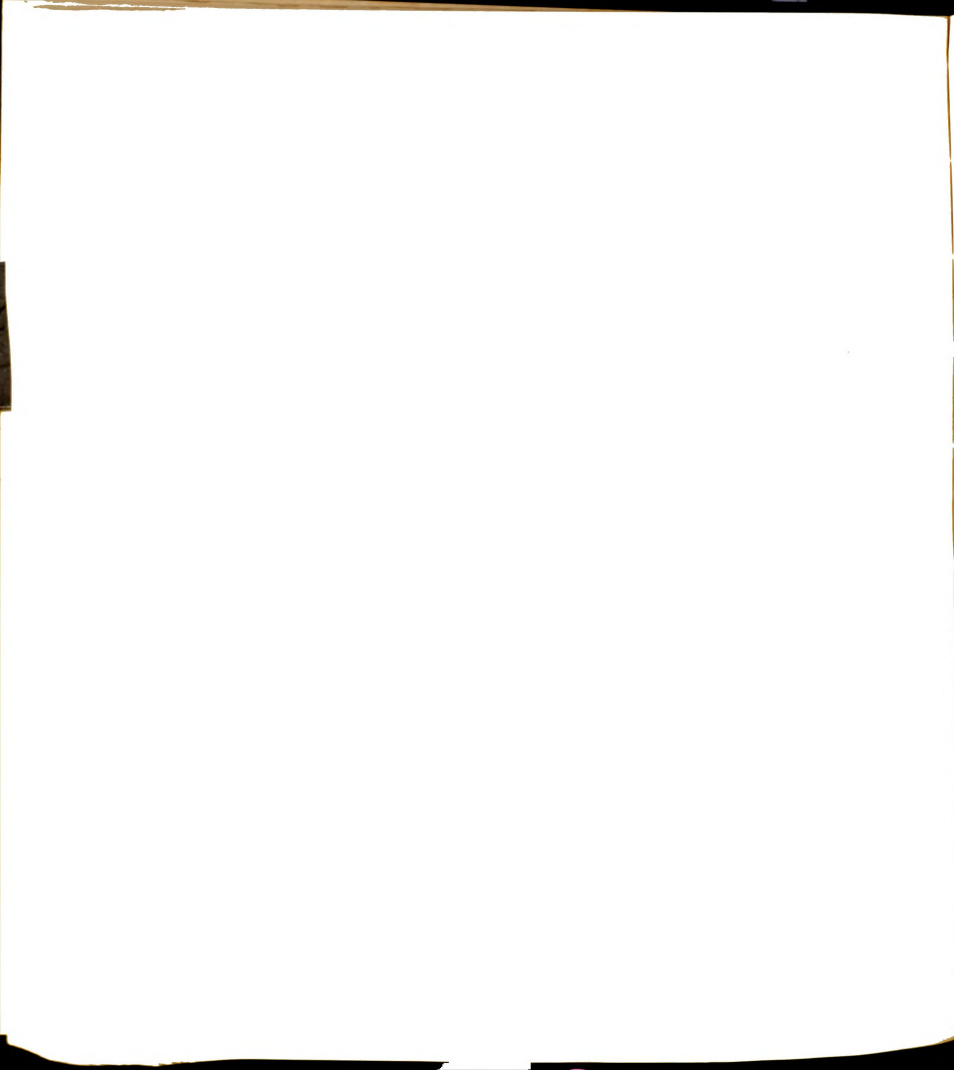
None	1
Less than 10%	2
Between 10 and 30%	3
Between 30 and 50%	4
Between 50 and 70%	5
Between 70 and 90%	6
More than 90%	7

Which social class do you believe you are in?

Lower	1
Lower Middle	2
Middle	3
Upper Middle	4
Upper	5
Upper Upper	6

Which social class do you believe your father is (or was) in?

Lower	1
Lower Middle	2
Middle	3
Upper Middle	4
Upper	5
Upper Upper	6



How much education do you have? (Circle only one)

- 0 years of school or less 1
1 years of school or less 2
2 years of school or less 3
3 years of school or less 4
Some college or university 5
College or university degree 6
Some graduate work beyond the first degree . . 7
One or more advanced degrees 8

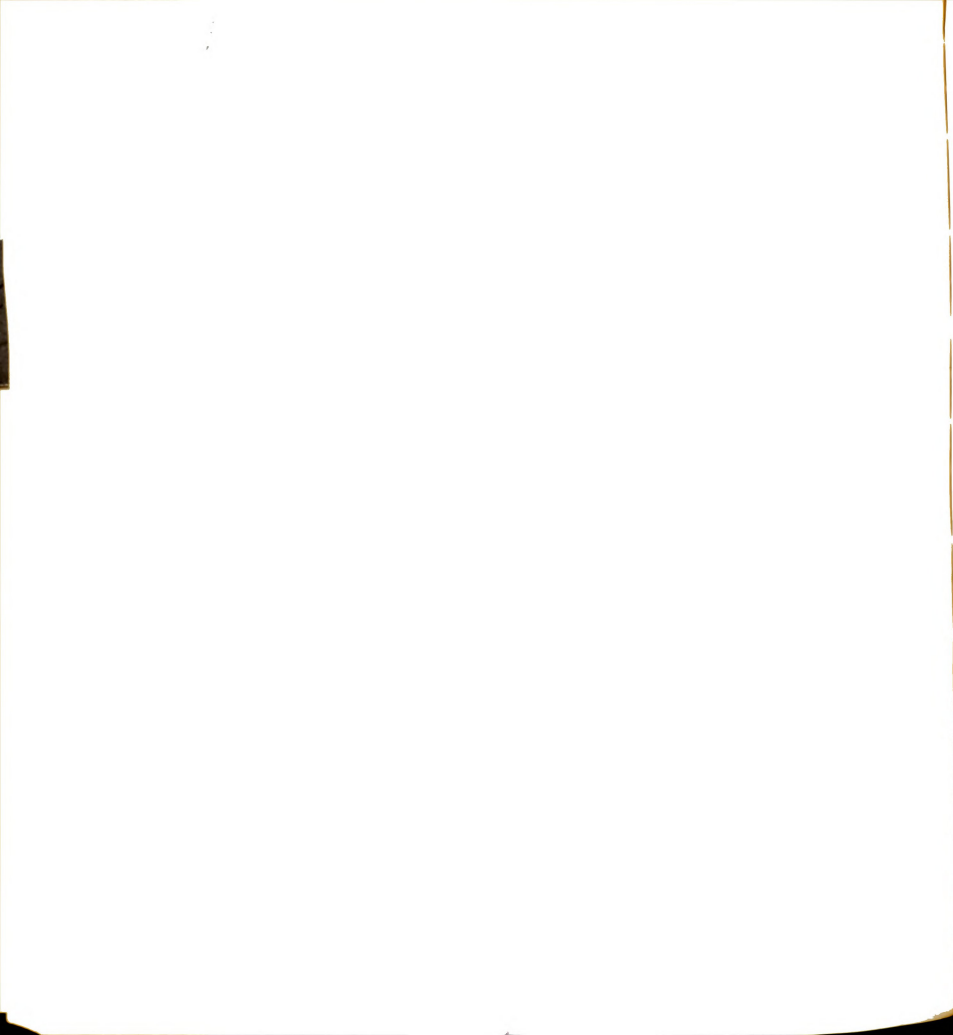
Whether (Please note number of years of study or diploma obtained _____) 9

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

How does (or did) your father's education compare with that of most people in his time?

- Much less than most 1
Less than most 2
About average 3
More than most 4
Much more than most 5



What type of living arrangement do you have?

- 1. Rent a house 1
- 2. Rent an apartment 2
- 3. Rent a room (meals in a restaurant, etc.) . . 3
- 4. Purchase room and board (rooming house, etc.) . 4
- 5. Own an apartment 5
- 6. Own a house. 6
- 7. Other (Please specify) _____ . . 7

Please answer either A or B. Please read both before answering.

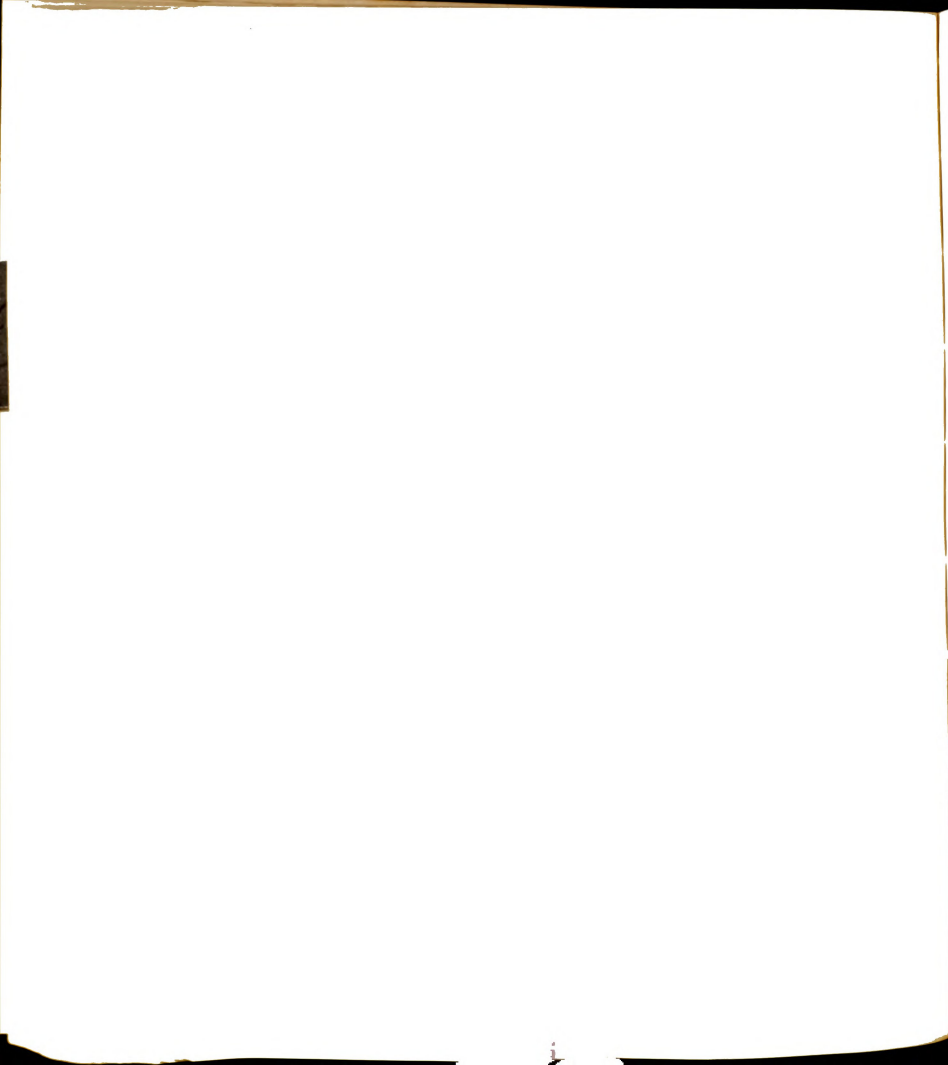
- A. If you are renting the house in which you live, about how much money per month do you pay for rent? (Write amount in box)

- B. If you own the house in which you live (house, apartment, or other), about how much money per month do you believe you could rent the house for? (Write amount in box)

For every community each group (for example, schools, businessmen, labor, the local government) has a different way to do for the community. In your community, would you say that the schools are going an excellent, good, fair, or poor job? How about businessmen? Labor? The local government? The doctors and hospitals? The police? (Please circle the appropriate number to indicate how you feel each job is being done.) Please answer for each group.

Elementary Schools

- 1. Do not know 1
- 2. Poor 2
- 3. Fair 3
- 4. Good 4
- 5. Excellent 5



Continued from Page 10. The instructions on the previous page apply to the following sections, B through E.

B. Secondary Schools

Do not know	1
Poor	2
Fair	3
Good	4
Excellent	5

C. Universities

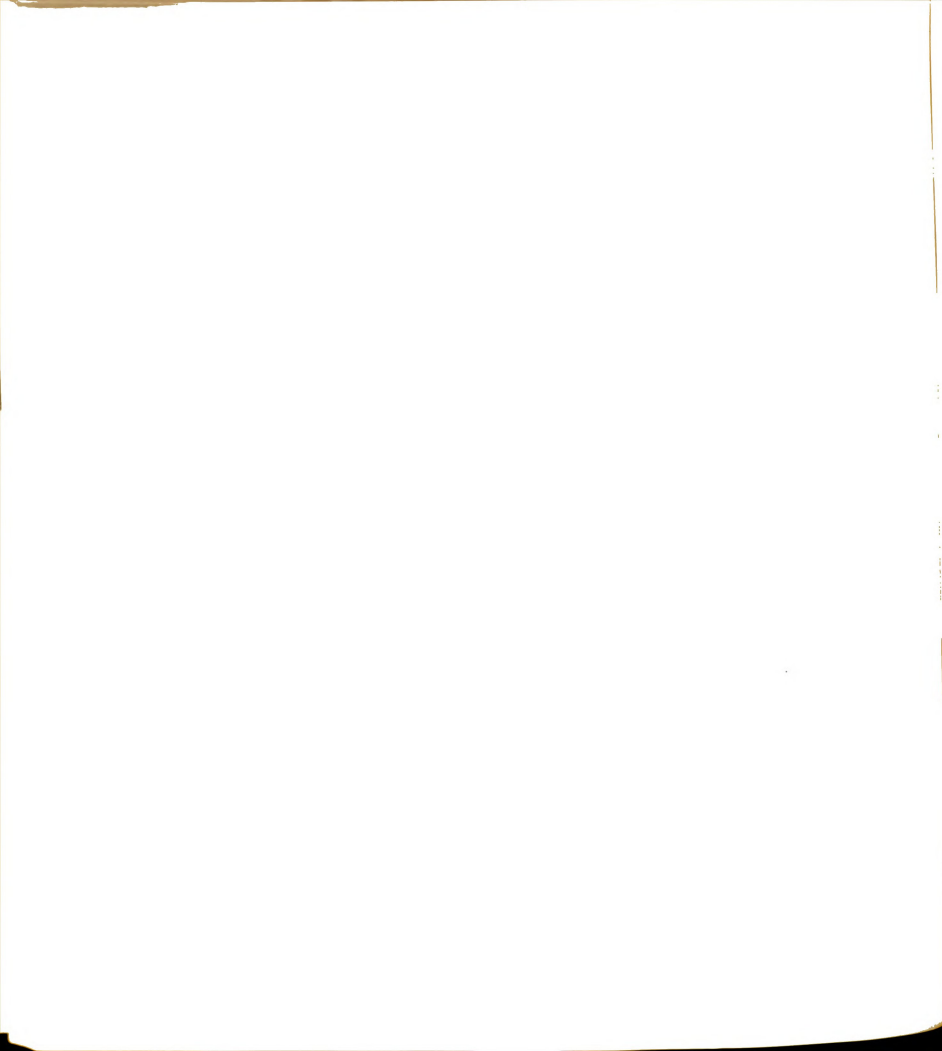
Do not know	1
Poor	2
Fair	3
Good	4
Excellent	5

D. Businessmen

Do not know	1
Poor	2
Fair	3
Good	4
Excellent	5

E. Labor

Do not know	1
Poor	2
Fair	3
Good	4
Excellent	5



Continued from Page 11. The instructions on the previous
page apply to the following sections, F through I.

F. Local Government

Do not know	1
Poor	2
Fair	3
Good	4
Excellent	5

G. National Government

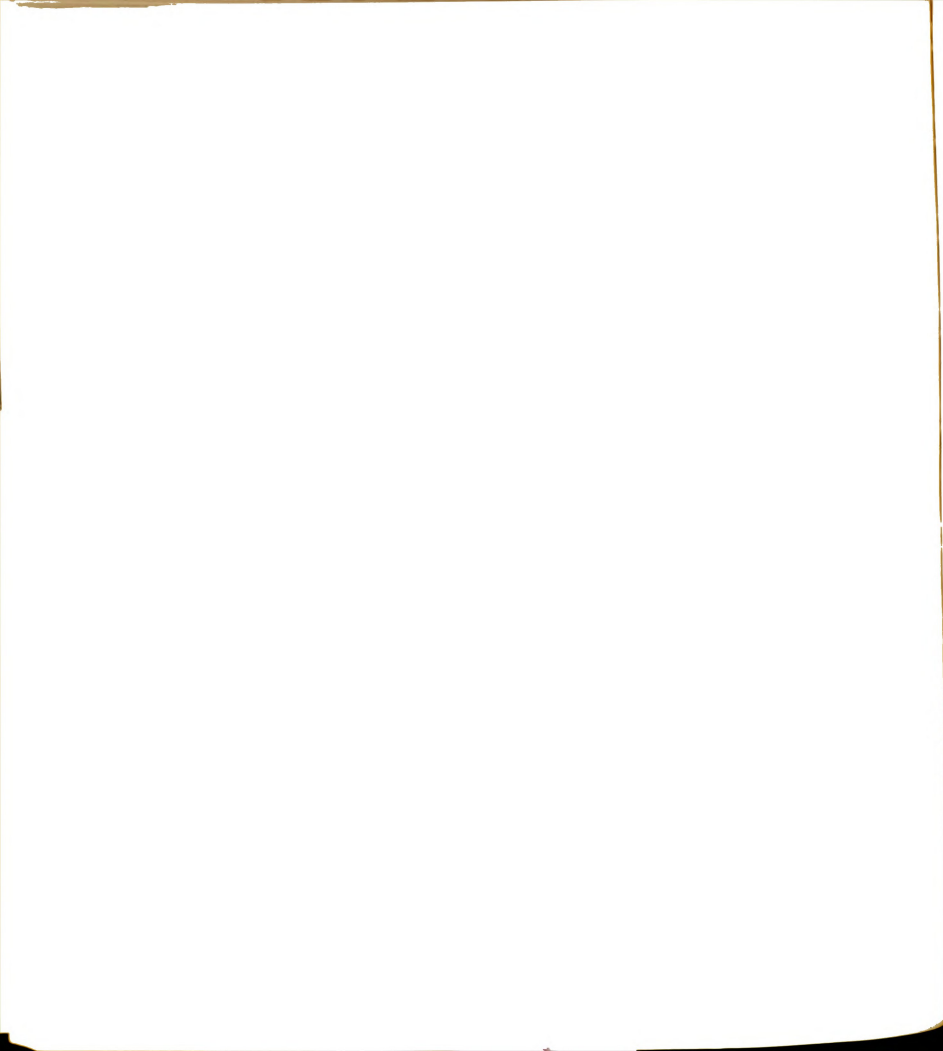
Do not know	1
Poor	2
Fair	3
Good	4
Excellent	5

H. Health Services (Doctors and Hospitals)

Do not know	1
Poor	2
Fair	3
Good	4
Excellent	5

I. Churches

Do not know	1
Poor	2
Fair	3
Good	4
Excellent	5



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

Have you changed your residency (from one community to another) during the past two years? Please circle the correct number.

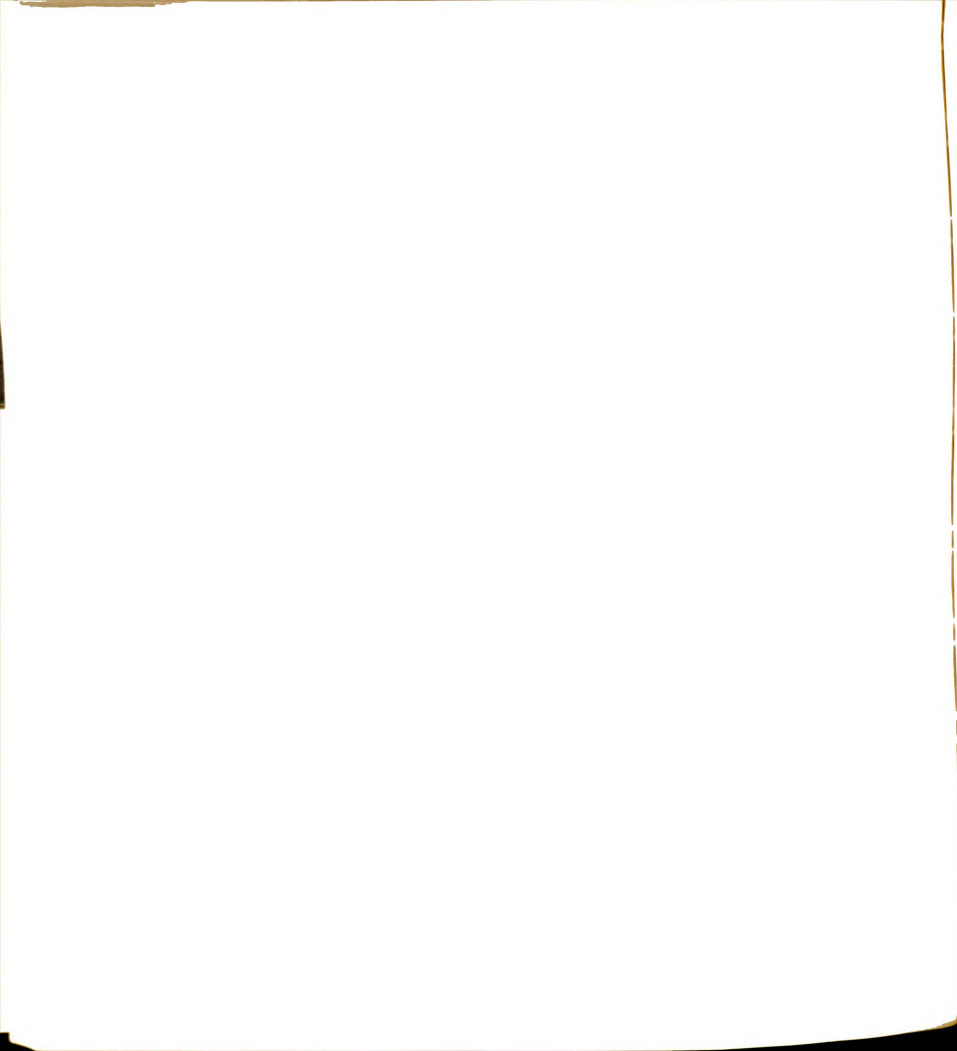
Yes	1
No	2

Have you changed your employment during the past two years? Please circle the correct number.

Yes	1
No	2

How many times have you changed residency (communities) during the past 10 years? Please circle correct number.

One	1
Time	2
- 3 Times	3
- 6 Times	4
- 10 Times	5
Over 10 Times	6



But how many times have you changed jobs during the last 10 years? Please circle the correct number.

None	1
Time	2
- 3 Times	3
- 6 Times	4
- 10 Times	5
Over 10 Times	6

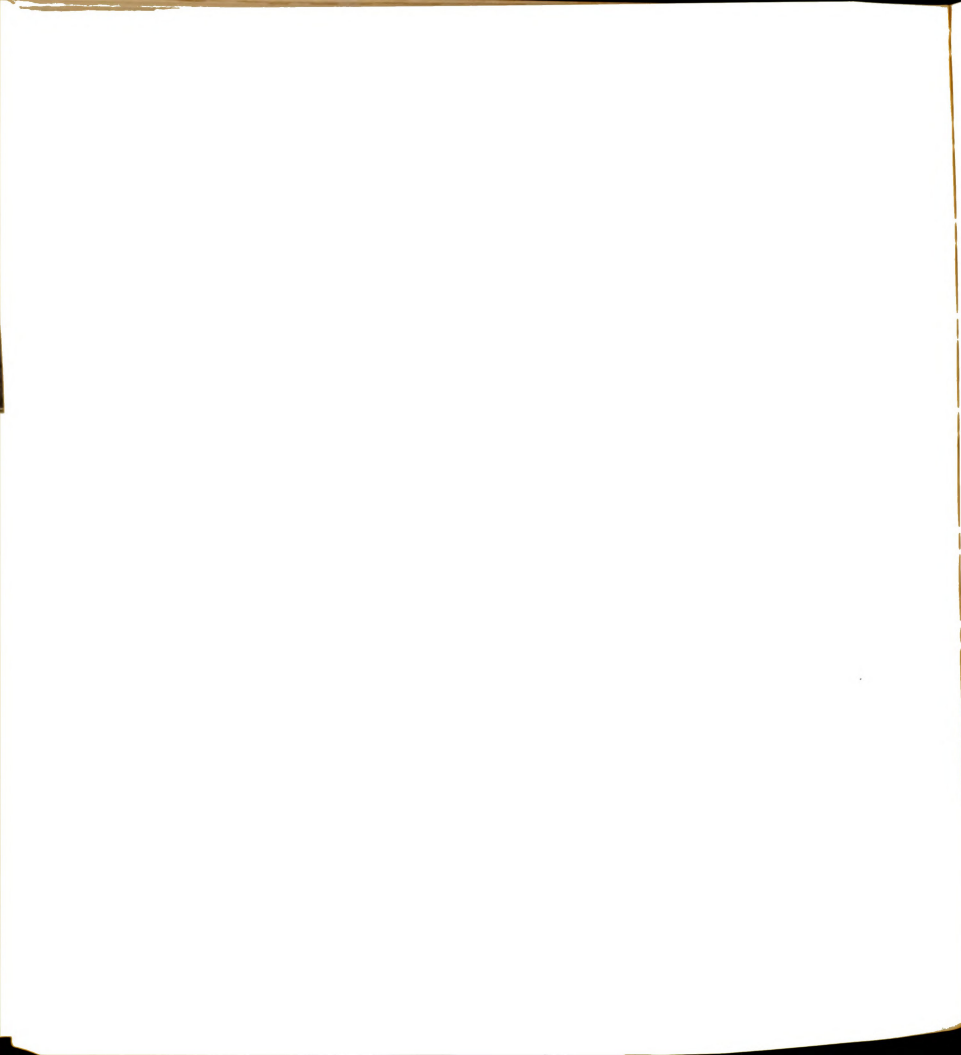
Please state your occupation. Briefly state the title and name of your job and the nature of your work.

With respect to your religion, about to what extent do you observe the rules and regulations of your religion? Please circle the correct number.

I have no religion	1
Seldom	2
Sometimes	3
Usually	4
Almost always	5

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.

Probably no	1
No	2
Maybe	3
Yes	4



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 about the following statement?

New methods of raising children should be tried out whenever possible."

Strongly disagree	1
Slightly disagree	2
Slightly agree	3
Strongly agree	4

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 right	1
It is probably all right	2
It is usually wrong	3
It is always wrong	4

People have different ideas about what should be done concerning automation and other new ways of doing things. do you feel about the following statement?

Automation and similar new procedures should be encouraged (in government, business, and industry) since eventually it creates new jobs and raises the standard of living."

Disagree Strongly	1
Disagree Slightly	2
Agree Slightly	3
Agree Strongly	4



running a village, city, town, or any governmental organization is an important job. What is your feeling about the following statement?

"Political leaders should be changed regularly, even if they are doing a good job."

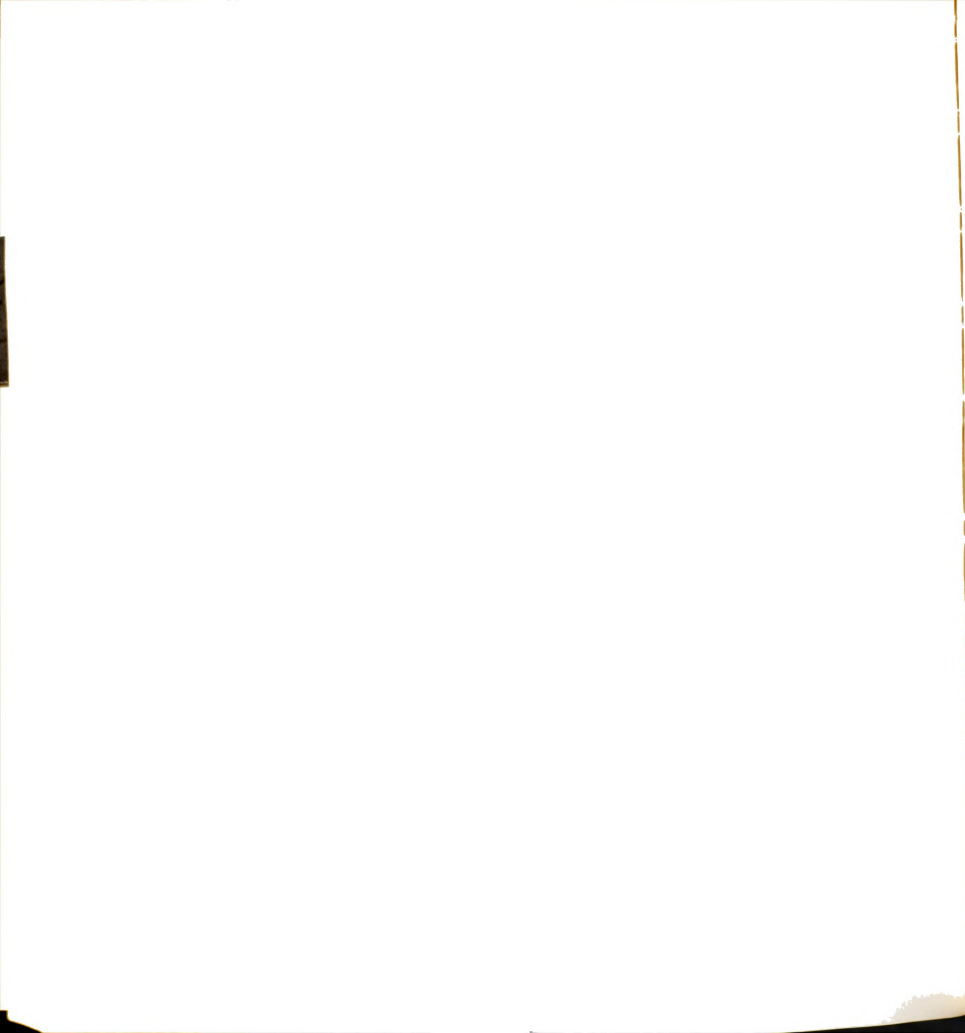
Strongly disagree	1
Slightly disagree	2
Slightly agree	3
Strongly agree	4

Do the people believe that more 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 disagree	1
Slightly disagree	2
Slightly agree	3
Strongly agree	4

Do the people believe that more federal 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 disagree	1
Slightly disagree	2
Slightly agree	3
Strongly agree	4



People have different ideas about planning for education in their nation. Which one of the following do you believe is the best way? Answer only one.

Planning for education should be left entirely to the parents 1

Educational planning should be primarily directed by the individual city or other local governmental unit 2

Educational planning should be primarily directed by the national government . . . 3

Are people more set in their ways than others. How would you rate yourself? Please circle the number of your choice.

I find it very difficult to change. 1

I find it slightly difficult to change. . . . 2

I find it somewhat easy to change my ways . . 3

I find it very easy to change my ways 4

I find it easier to follow rules than to do things on my own.

I agree strongly 1

I agree slightly 2

I disagree slightly 3

I disagree strongly 4

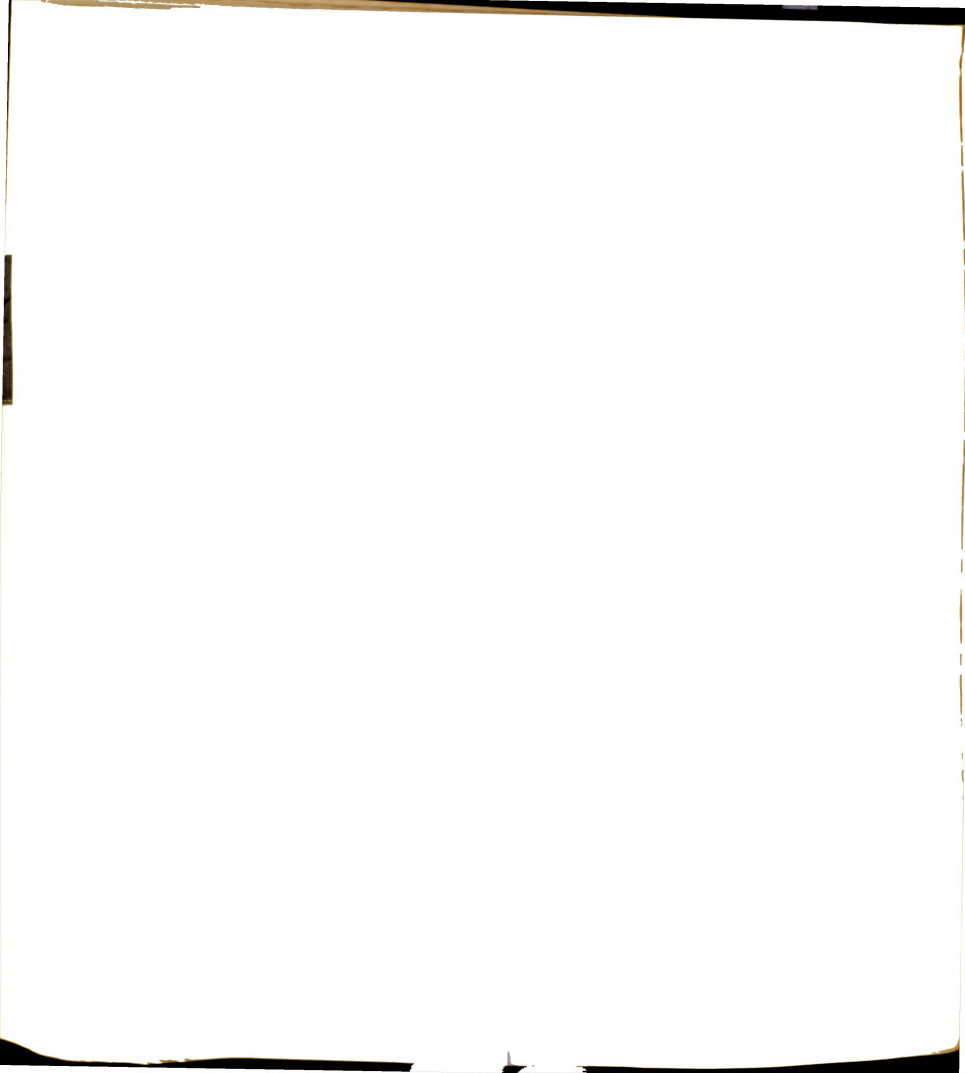
Do you like the kind of work that lets me do things about the way from one week to the next. Circle the number of your choice.

I agree strongly 1

I agree slightly 2

I disagree slightly 3

I disagree strongly 4



good son will try to find work that keeps him near his
 parents even though it means giving up a good job in
 other part of the country.

- Agree strongly 1
 Agree slightly 2
 Disagree slightly 3
 Disagree strongly 4

should be as helpful to people we do not know as
 are to our friends.

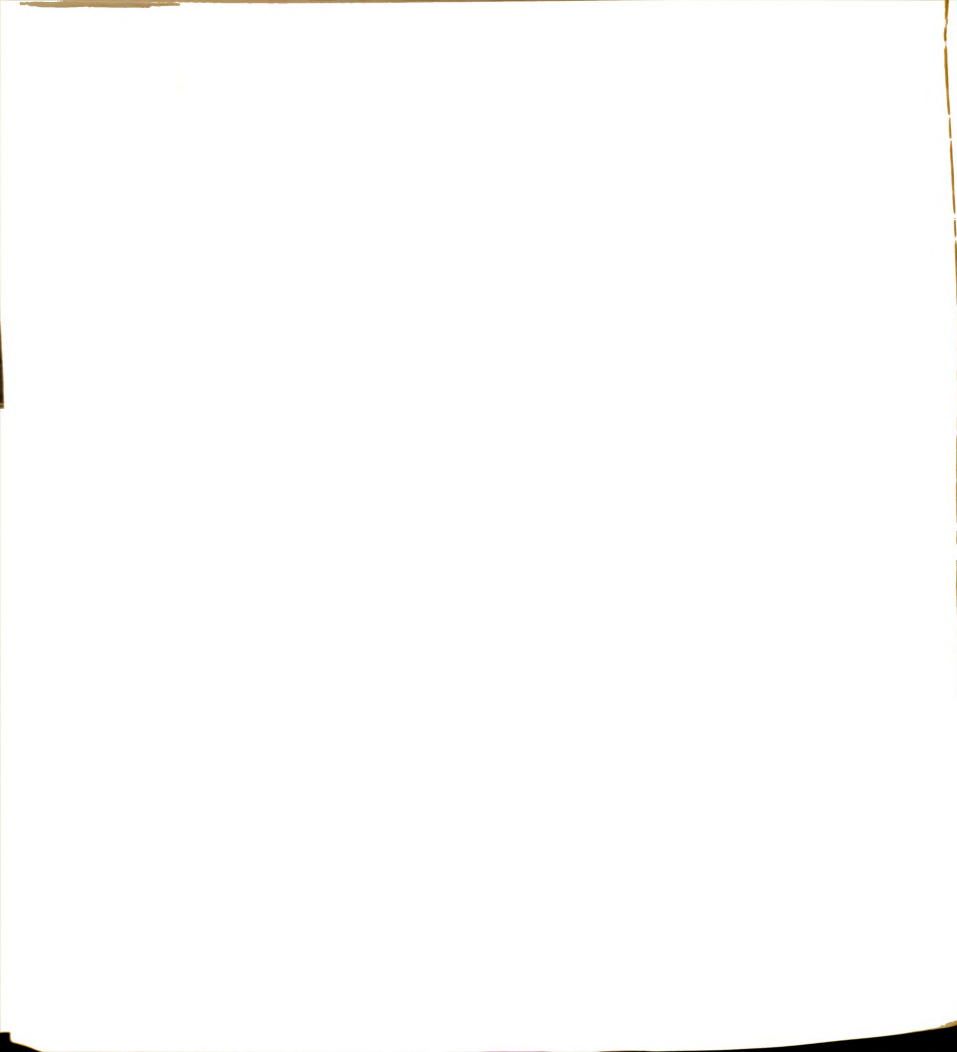
- Disagree strongly 1
 Disagree slightly 2
 Agree slightly 3
 Agree strongly 4

Planning only makes a person unhappy because your plans
 rarely ever work out anyway.

- Agree strongly 1
 Agree slightly 2
 Disagree slightly 3
 Disagree strongly 4

Each of the following requisites do you consider most
 important to make your life more happy and satisfactory
 in the future? Circle the single, most important choice.

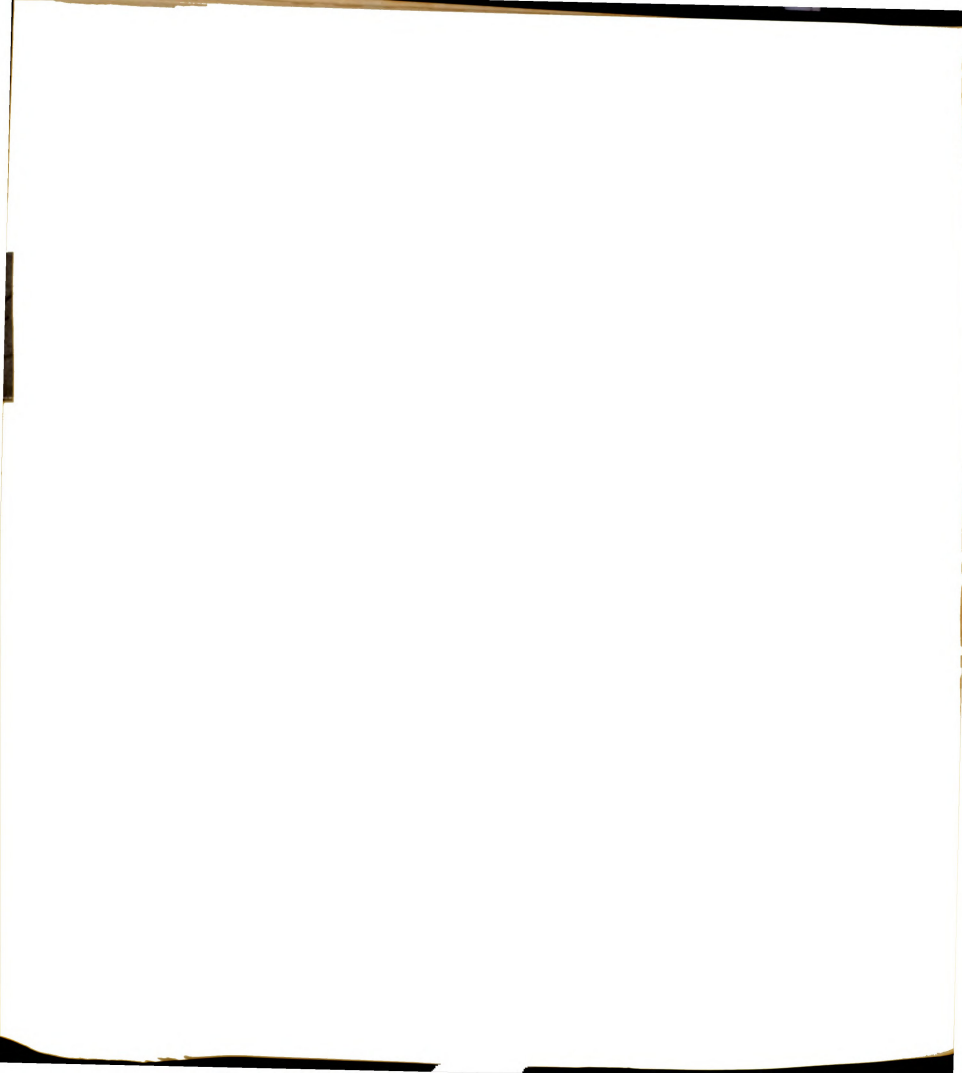
- Nothing 1
 More money 2
 More friends 3
 Better job 4
 Good health 5
 Other (please specify) _____ 6



What do you think you can do to make this possible?
Please answer one of the two alternatives below.

Nothing _____

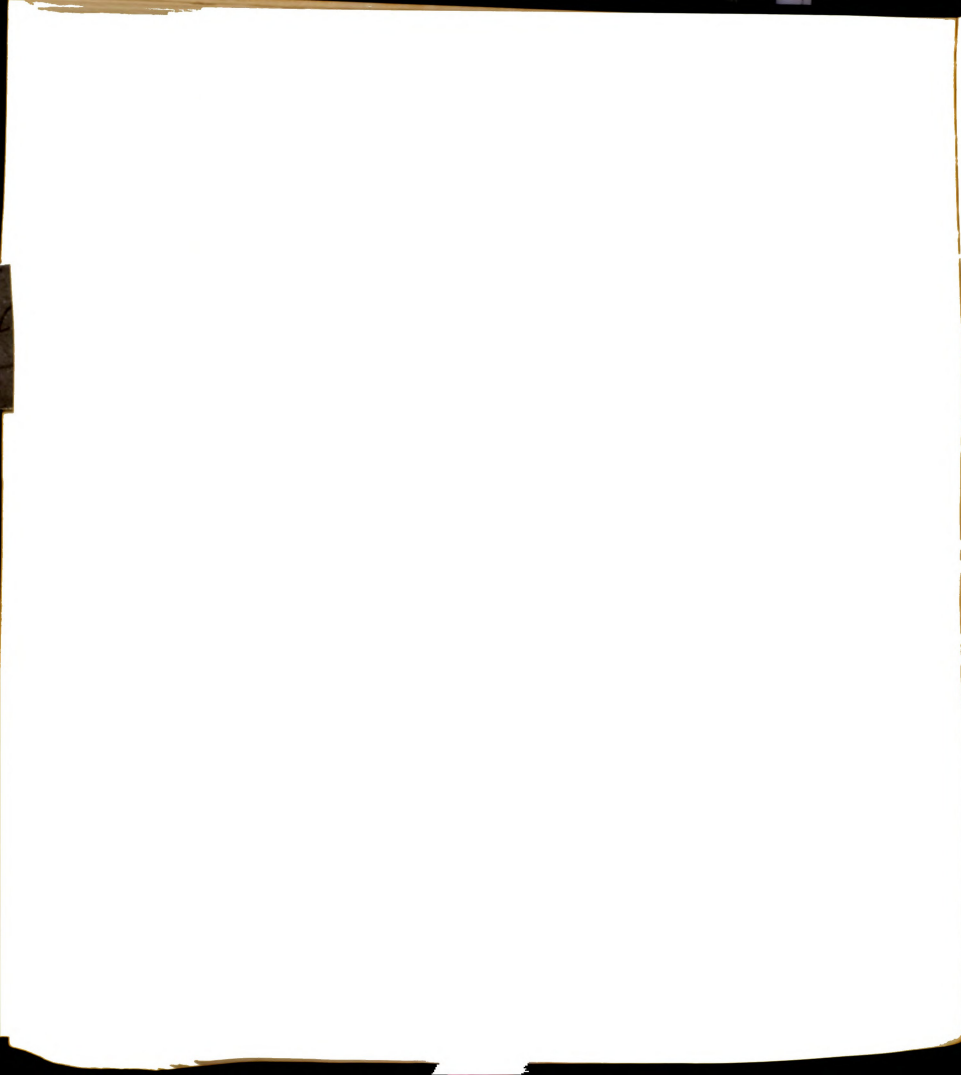
Please specify _____



APPENDIX B

Instrumentation

B-4 Handicapped Persons
Scale



Location _____

Group _____

Date _____

HANDICAPPED PERSONS SCALE

Directions: Given below are 20 statements of opinion about physically handicapped persons. We all think differently about persons with physical handicaps. Here you may express your opinion by choosing one of the four possible answers for 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 the first part of your answer in the same way as before, by placing a circle around the number in front of the answer you select.

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

Physically handicapped persons are just as intelligent as non-handicapped ones.

1. Strongly disagree

3. Agree

2. Disagree

4. Strongly agree

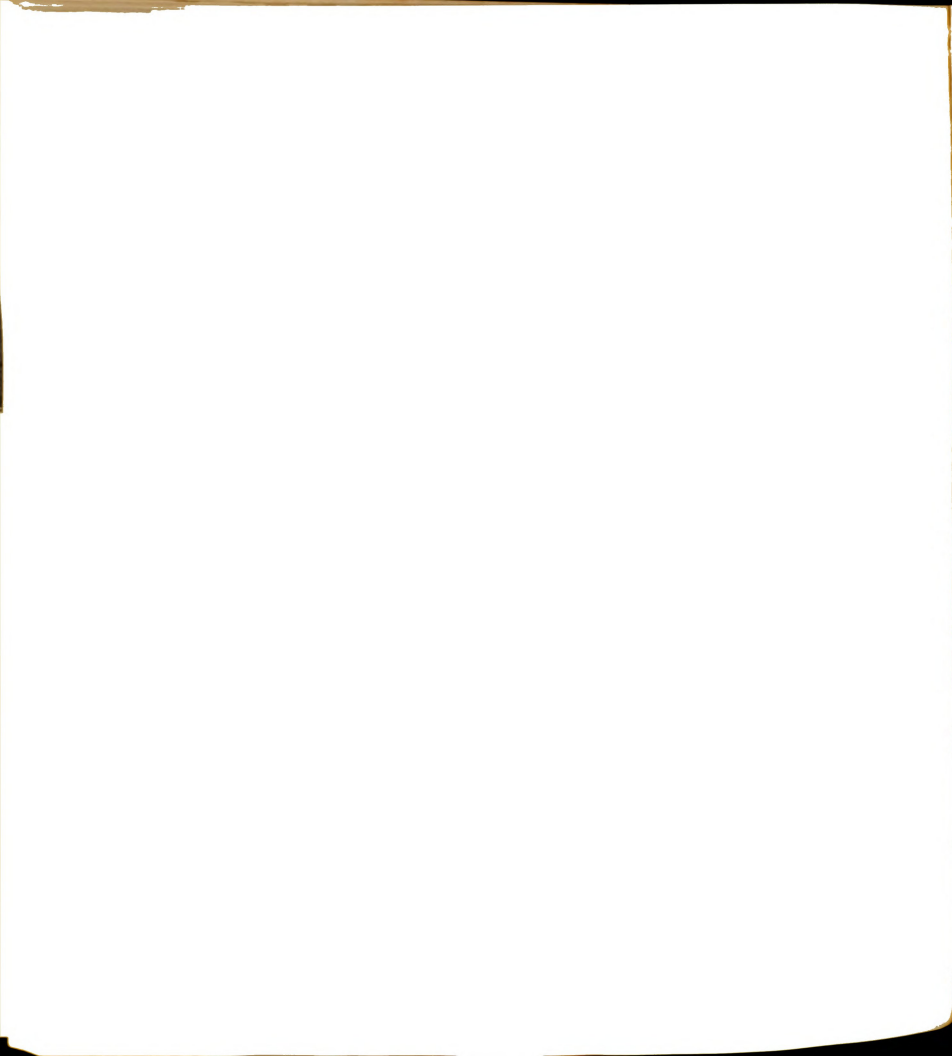
About how strongly do you feel about your answer?

1. Not strongly at all

3. Fairly strongly

2. Not very strongly

4. Very strongly



handicapped people are usually easier to get along with than other people.

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

about how strongly do you feel about your answer?

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

most physically handicapped people feel sorry for themselves.

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

about how strongly do you feel about your answer?

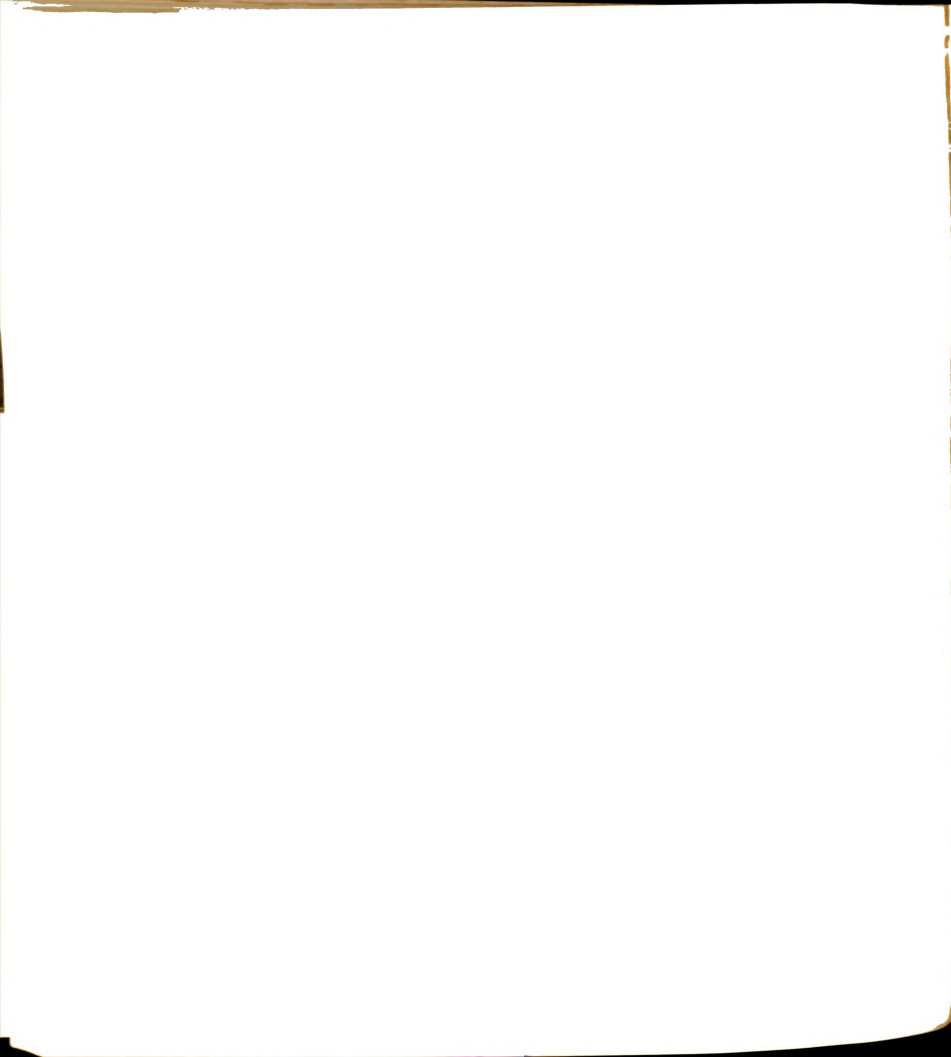
- | | |
|-----------------------|--------------------|
| . Not strongly at all | 3. Fairly strongly |
| . Not very strongly | 4. Very strongly |

physically handicapped people are the same as anyone else.

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

about how strongly do you feel about your answer?

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



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 |

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?

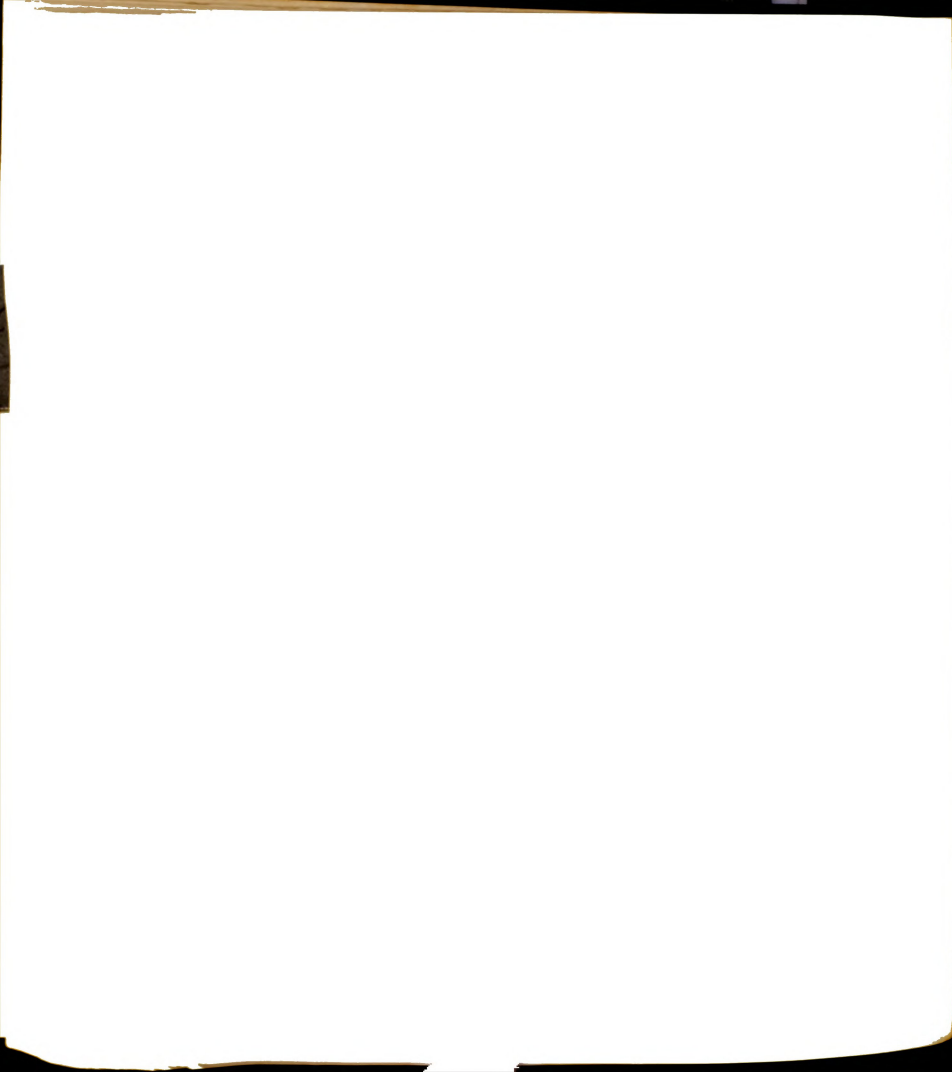
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

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 |



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 |

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?

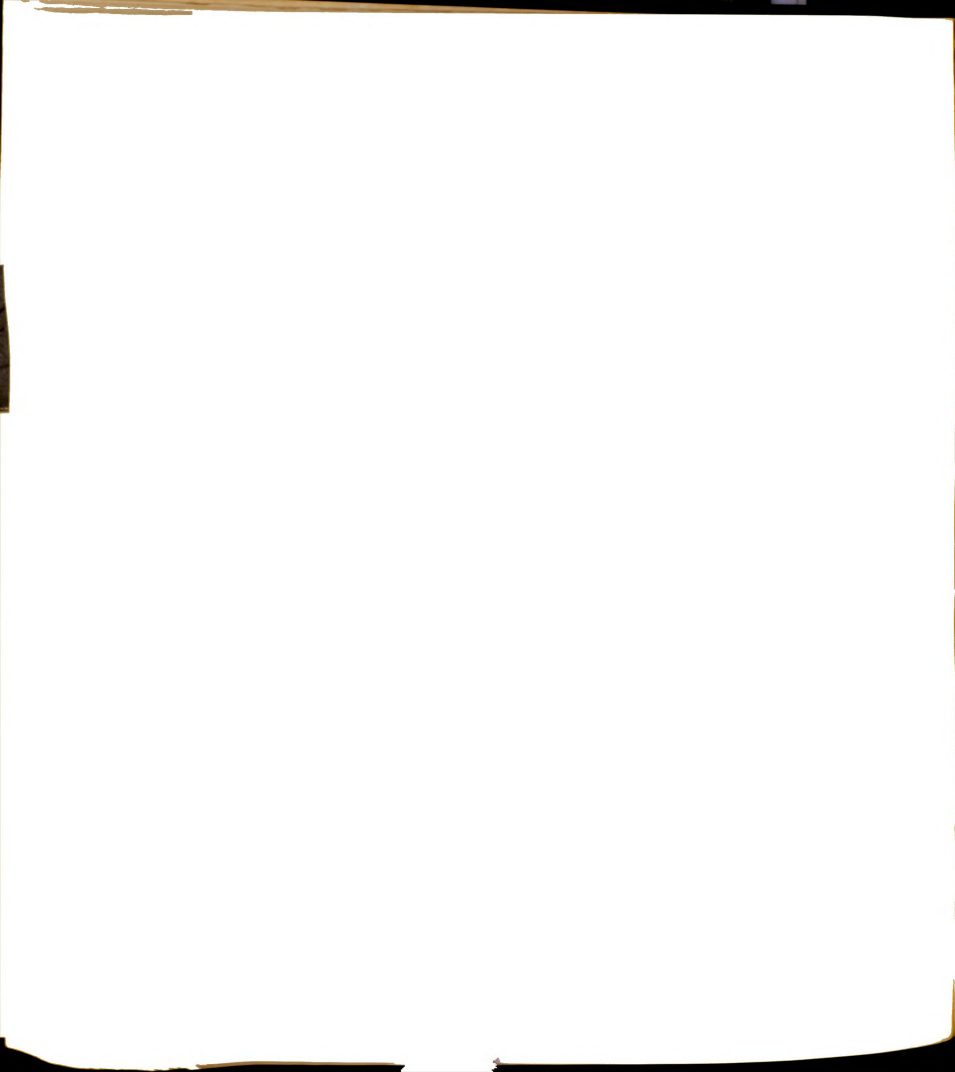
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

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 |



rely physically handicapped people are no harder
et along with than those with minor handicaps.

Strongly disagree	3. Agree
Disagree	4. Strongly agree

t how strongly do you feel about your answer?

Not strongly at all	3. Fairly strongly
Not very strongly	4. Very strongly

s almost impossible for a handicapped person to
d a normal life.

Strongly disagree	3. Agree
Disagree	4. Strongly agree

ut how strongly do you feel about your answer?

Not strongly at all	3. Fairly strongly
Not very strongly	4. Very strongly

should not expect too much from physically handicapped
ple.

Strongly disagree	3. Agree
Disagree	4. Strongly agree

out how strongly do you feel about your answer?

Not strongly at all	3. Fairly strongly
Not very strongly	4. Very strongly



ically handicapped people tend to keep to themselves
of the time.

Strongly disagree	3. Agree
Disagree	4. Strongly agree

ut how strongly do you feel about your answer?

Not strongly at all	3. Fairly strongly
Not very strongly	4. Very strongly

sically handicapped people are more easily upset
n non-handicapped people.

Strongly disagree	3. Agree
Disagree	4. Strongly agree

ut how strongly do you feel about your answer?

Not strongly at all	3. Fairly strongly
Not very strongly	4. Very strongly

ysically handicapped persons cannot have a normal
cial life.

Strongly disagree	3. Agree
Disagree	4. Strongly agree

ut how strongly do you feel about your answer?

Not strongly at all	3. Fairly strongly
Not very strongly	4. Very strongly



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 |

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?

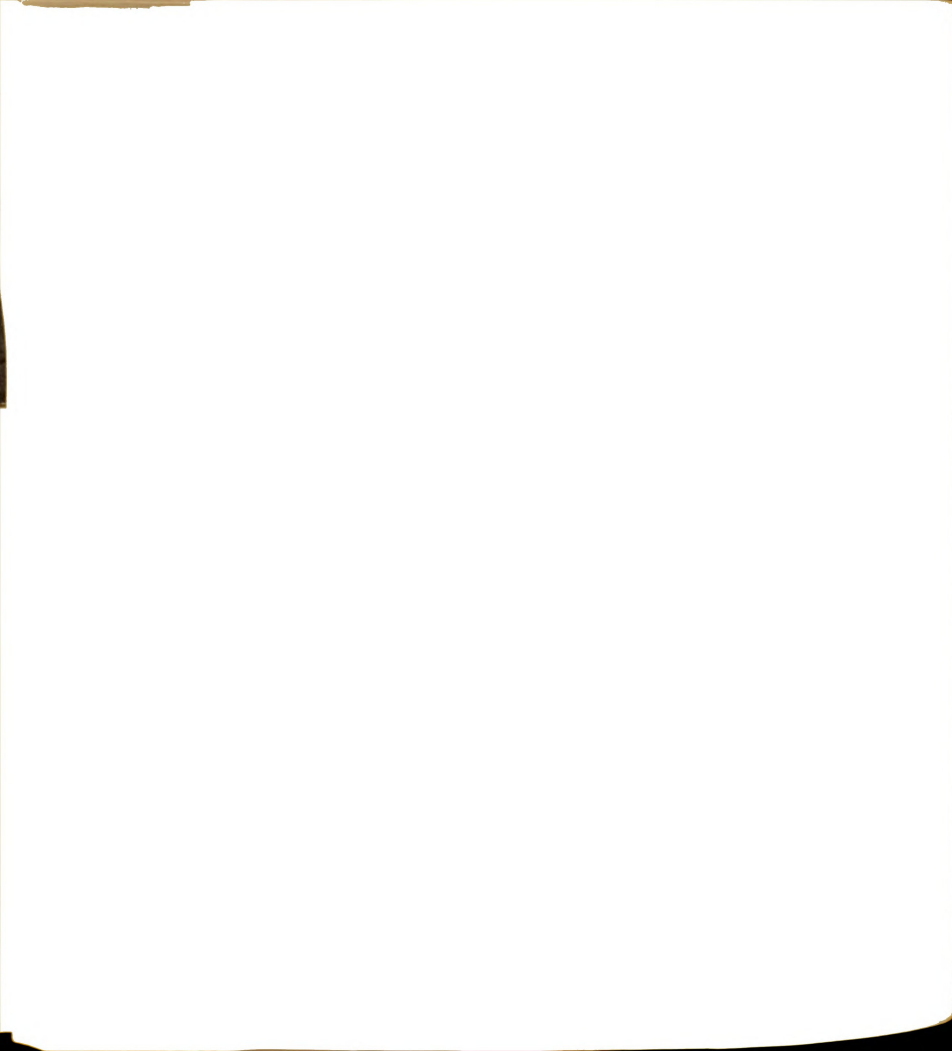
- | | |
|------------------------|--------------------|
| 1. Not strongly at all | 3. Fairly strongly |
| 2. Not very strongly | 4. Very strongly |

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 B

Instrumentation

B-5 Definitions 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 B

Instrumentation

B-6 Personal Questionnaire:
Handicapped Persons



No. _____

Location _____

Male _____

Group _____

Female _____

Date _____

PERSONAL QUESTIONNAIRE: HP

This questionnaire deals with your contacts with physically handicapped persons, and what you know about them. Perhaps you have had much contact with physically handicapped persons, or you may have studied about them. On the other hand, you may have had little or no contact with physically handicapped persons, and may have never thought much about them at all.

For the purposes of this investigation, the answers of all persons are important, so even if you know very little or nothing about physically handicapped persons your answers are important.



No. _____

1

PERSONAL QUESTIONNAIRE: HP

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.

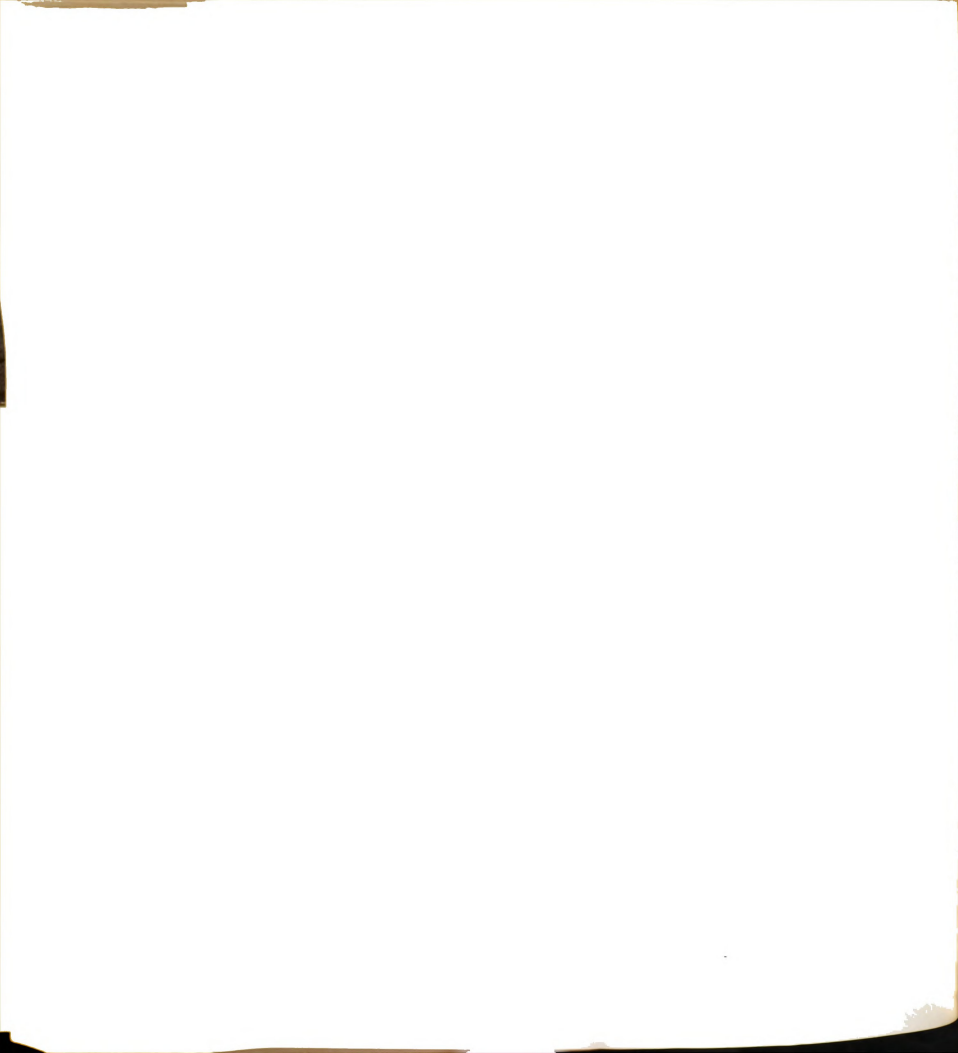
1. Some physically handicapping conditions are listed below. In respect to these various handicaps, which have you had the most actual experience with. Please answer by circling the number of the group you select. Circle only one.

- | | |
|--------------------------------|---|
| 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 | 8. speech disorders |
| 5. crippled or amputated limbs | 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 | 8. speech disorders |
| 5. crippled or amputated limbs | 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 #9. If you indicated that you have had experience with one or more of the above handicapping conditions, please answer questions #3 through #9.



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.

I have read or heard a little about physically handicapped persons 1

I have studied about physically handicapped persons through reading, movies, lectures, or observations 2

A friend is physically handicapped 3

Some relative is physically handicapped 4

I have personally worked with physically handicapped persons, as a teacher, counselor, volunteer, child care, etc. 5

My father, mother, brother, sister, wife (husband) or child is physically handicapped. 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?

No, I have never received money, credit, or any other material gain . . . 1

Yes, I have been paid for working with handicapped persons . . . 2

Yes, I have received academic credit or other material gain . . . 3

Yes, I have both been paid and received academic credit. . . 4

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

9. If you have ever worked with the physically handicapped 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?

I do not know what other jobs were available
or acceptable 1

No other job was available. 2

Other jobs available were not at all acceptable
to me. 3

Other jobs available were not quite acceptable
to me 4

Other jobs available were fully acceptable
to me. 5



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.

10. 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 |
11. 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

Instrumentation

B-7 Rationale and Procedures for Producing Item "Directionality" in the Following Scales

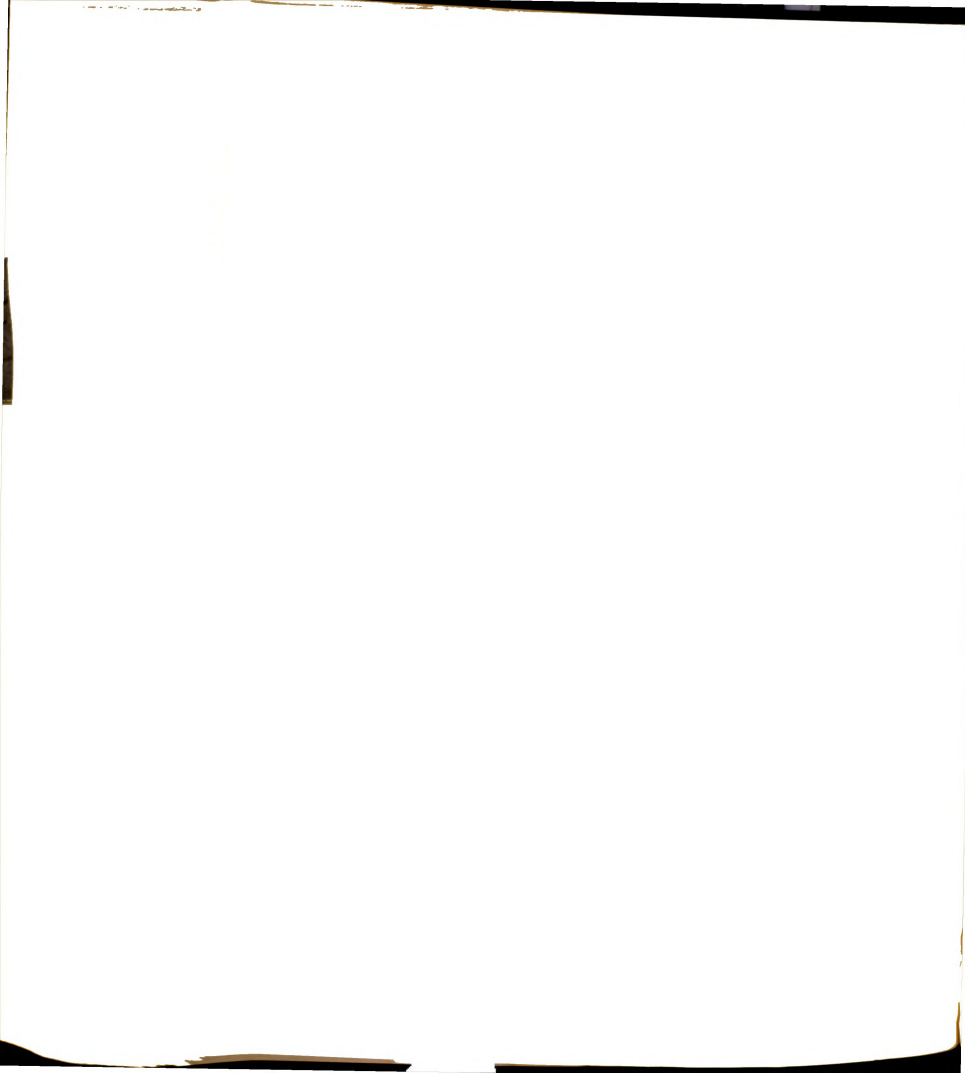
1. Handicapped Persons
Scale
2. Hearing Handicapped
Persons Scale
3. Blind Persons Scale
4. Deaf Persons Scale

John E. Jordan
John E. Felty
September 30, 1965



1. The rationale for reversing content scoring on the H-P scale items 2, 5, 6, 11, 12.
 - a. All of the other items of the scale state either a difference between HP's and others, or a negative characteristic--therefore, agreement with these items indicates less acceptance (according to Yuker-Block).
 - b. The 5 items mentioned above are statements of similarity between HP's and others, therefore agreement indicates more acceptance. In order to make the "direction" of acceptance the same for all items, the scoring was reversed on these 5, so that people who disagreed with statements of similarity would get a higher score.
 - c. After this reversal, high scores on each of the items is supposed to indicate less acceptance.
 - d. In the dichotomization procedure (Feltz, by hand) there was a final reversal of scoring on all items in order to make a high (1) score be favorable, and a low (0) score unfavorable for each item. It is, of course, not necessary to make this final step, but it is more convenient for my thinking, and a more usual procedure, to make more favorable scores higher.
2. For Dickie and Weir, the positively-stated items are not all precise statements of similarity, but the items can be divided into those in which agreement with the item indicates unfavorable attitudes, and those in which agreement indicates favorable attitudes. This is by inspection, of course, and it is possible that empirical test could indicate that a given item was placed in the wrong category. Such an item would probably scale negatively with the others, and scoring would have to be reversed for this item in computing total scores for each subject.

This question is independent of the question of whether a high total score indicates favorable or unfavorable attitudes, which is a question of item content. If you want a high total score to indicate favorable attitudes, (see 1,d above), one way would be to follow Feltz's procedure on the H-P scale (as outlined above and in the code book). However, if the computer dichotomization is used, it will be necessary to reverse the total



scores after the dichotomized total scores have been computed for each person for scale items (this is a hand procedure based on new dichotomized totals--either machine or hand-dichotomized--and takes place as the last two operations in the "scale and intensity analysis" subsection of the "flow and control chart." That is, after scaling, even by computer, someone still has to figure out the new total scores for each respondent for each "scale," enter these into unused columns of the data sheet, and then have them punched into Deck 1 for further analysis.) If after dichotomization, total scores ranged from 0 to 20 (possible with 20 dichotomized statements scored 0, 1) and high scores indicate unfavorable attitudes, the scoring can be reversed by making up an equivalence table to transpose the scores; e.g.,

Total Scores	
Dichotomized "Unfavorable"	Reversed "Favorable"
20	0
19	1
18	2
17	3
etc.	etc.

Another way of doing this would avoid the necessity of making two sets of reversals; i.e., instead of reversing the similarity-type items (see above, 1,b), reverse the others. This means many more items have to be reversed initially in the scoring but that no further reversal is necessary since a high score for each item would then presumably indicate a favorable or accepting response. Although this would be more time-consuming for coder, it would save time later and is not as complicated. (Note: it will still be necessary to obtain new scale item total scores by a hand procedure after dichotomization and scaling as indicated on p. 2.

For the Blind Persons Scale (Dickie) a high score (strong agreement) indicates favorable attitude for items 2, 10, 13, 14, 17, 19.



For the Hearing Handicapped Persons Scale (Weir) a high score (strong agreement) indicates favorable attitude for items 1, 7, 10, 15.

If the scores are reversed for these items, a high total score will indicate unfavorable or unaccepting attitudes, and a further reversal following dichotomization would be advisable (as on pages 1 and 2). If scores are reversed for all other items, a high total score will indicate favorable or accepting attitudes, and no further reversal will be necessary.

3. For Sinha (Emotionally Disturbed Persons Scale - EDP) the procedures follow exactly those of Felty for the HP scale. (See pages 1-10 of code book number 865).
4. Following is a summary of the above procedures to be used by all studies:
 - a. in initial scoring, reverse favorably stated items (usual procedure) i.e., those items mentioned specifically by number.
 - b. submit for dichotomization and scale analysis by computer
 - c. for scale items obtain new total scores for each respondent¹
 - d. convert these total scores by inverting the order (e.g., bottom of page 2). High score now indicates favorable attitude
 - e. enter scale scores (converted) onto data sheets in open columns
 - f. have scale scores punched into Deck 2 at data processing
 - g. use new scale score totals in subsequent analyses (Anova, MRA, etc.)
 - h. since the intensity items are all clearly directional, from low to high intensity, there would be no reason for making any reversals.

¹ See page 4



¹As mentioned before, a possible complication can arise with items which scale negatively with the other items in the Lingoes procedure. This would seem to indicate that the prejudgment about whether the item was "favorable" or "unfavorable" was in error, and would require a reversal of scoring for this item in obtaining a total scale score. That is, all "0's" would be scored as "1's" and vice versa (as Lingoes states it, the item has been "reflected").

John E. Jordan
John E. Felty



APPENDIX C

Variables, Administration Procedures, and Code Forms

C-1 Basic Variables of the
Study



A. Attitudes Toward Education

- 1 Traditional attitudes, Items 3, 4, 6, 10, 11, 12, 13, 14,
18, 19 - Content
Raw Score total
Adjusted total score (dichotomized)
- 2 Traditional attitudes, Items 3, 4, 6, 10, 11, 12, 13, 14,
18, 19 - Intensity
Raw Score total
Adjusted total score (dichotomized)
- 3 Progressive attitudes, Items 1, 2, 5, 7, 8, 9, 15, 16, 17,
20 - Content
Raw Score total
Adjusted total score (dichotomized)
- 4 Progressive attitudes, Items 1, 2, 5, 7, 8, 9, 15, 16, 17,
20 - Intensity
Raw Score total
Adjusted total score (dichotomized)

B. Contact with Education (Q'aire)

- 1 Levels of education experienced
Q'aire, Item 1 (primary contact)
Q'aire, Item 2 (additional contacts - no. kinds of)
- 2 Varieties of contact with education
Q'aire, Item 3
- 3 Amount of contact (work) with education
Q'aire, Item 4
- 4 Personal gain through working in education
Q'aire, Item 5 (% of income)
- 5 Alternative opportunities available
Q'aire, Item 7 (refers to other possible employment)
- 6 Enjoyment of contact
Q'aire, Item 6

C. Aid to Education - Financial (Q'aire)

- Item 44 (local)
Item 45 (federal or national)



D. Education Planning (Q'aire)

Item 46

E. Interpersonal Values - Gordon Scale

- 1 S scores: Support
- 2 C scores: Conformity
- 3 R scores: Recognition (comparative score)
- 4 I scores: Independence
- 5 B scores: Benevolence (asset score)
- 6 L scores: Leadership (comparative score)

F. Demographic, S.E.S., Other Control Data (All from Q'aire)

- 1 Education (self-amount), Item 26
- 2 Occupation (specific), Item 37
- 3 Income and rental (S. E. Class)
Item 14 (income - yearly, self-family)
Item 30 (rental)
- 4 Age: Item 8
- 5 Sex: Front sheet of questionnaire
- 6 Marital status: Item 12
- 7 Number of children: Item 13
- 8 Size of family:
Item 16 (brothers - do not use)
Item 17 (sisters - do not use)
Items 16 and 17 (siblings)
- 9 Housing (type of), Item 29
- 10 Mobility: Residency, Items 32, 33 and 35
Card 4, Col. 25
Occupational, Items 34 and 36
- 11 Rural-Urban Status: Items 9, 10 and 11
- 12 Employment status - current: Item 37

G. Satisfaction with institutions (Q'aire)

- 1 Satisfaction with elementary schools
Item 31-A
- 2 Satisfaction with secondary schools
Item 31-B
- 3 Satisfaction with universities
Item 31-C



- 4 Satisfaction with businessmen
Item 31-D
- 5 Satisfaction with labor
Item 31-E
- 6 Satisfaction with local government
Item 31-F
- 7 Satisfaction with national government
Item 31-G
- 8 Satisfaction with health services
Item 31-H
- 9 Satisfaction with churches
Item 31-I

H. Self-Statements (Q'aire)

- 1 Comparative income status - self: Item 15
- 2 Comparative income - father: Item 18
- 3 Comparative social class - self: Item 24
- 4 Comparative social class - father: Item 25
- 5 Comparative education - self: Item 27
- 6 Comparative education - father: Item 28

I. Religiosity Questionnaire (Q'aire)

- 1 Religious affiliation: Item 19
- 2 Perceived importance: Item 20
- 3 Perceived norm conformity: Item 38

J. Personalism Questionnaire (Q'aire)

- 1 Orientation toward job personalism
 - a Statement of extent of personalism on job: Item 21
 - b Perceived importance of personal relations: Item 22
- 2 Diffusion of personal relationships
Percent of job-social overlap: Item 23
- 3 Familialism: Item 50, (Son's work)
- 4 Other orientation: Altruism: Item 51

K. Attitudes Toward Change (Q'aire)

- 1 Health practices (water): Item 29
- 2 Child-rearing practices: Item 40
- 3 Birth control practices: Item 41

- 4 Political leadership change: Item 43
- 5 Automation: Item 42
- 6 Self Conception
 - Item 47 (Perceived self-rigidity)
 - Item 48 (Adherence to rules)
 - Item 49 (Job regularity and rigidity)
- 7 Future orientation
 - Item 52 (Planning - personal)
 - Item 53 (Requisites for happiness)
 - Item 54 (Achievement of happiness)

L. Attitudes Toward Handicapped Persons

- 1 Handicapped Persons Scale, Items 1-20 - Content
 - Raw Score total
 - Adjusted total score (dichotomized)
- 2 Handicapped Persons Scale, Items 1-20 - Intensity
 - Raw Score total
 - Adjusted total score (dichotomized)

M. Contact with Handicapped Persons

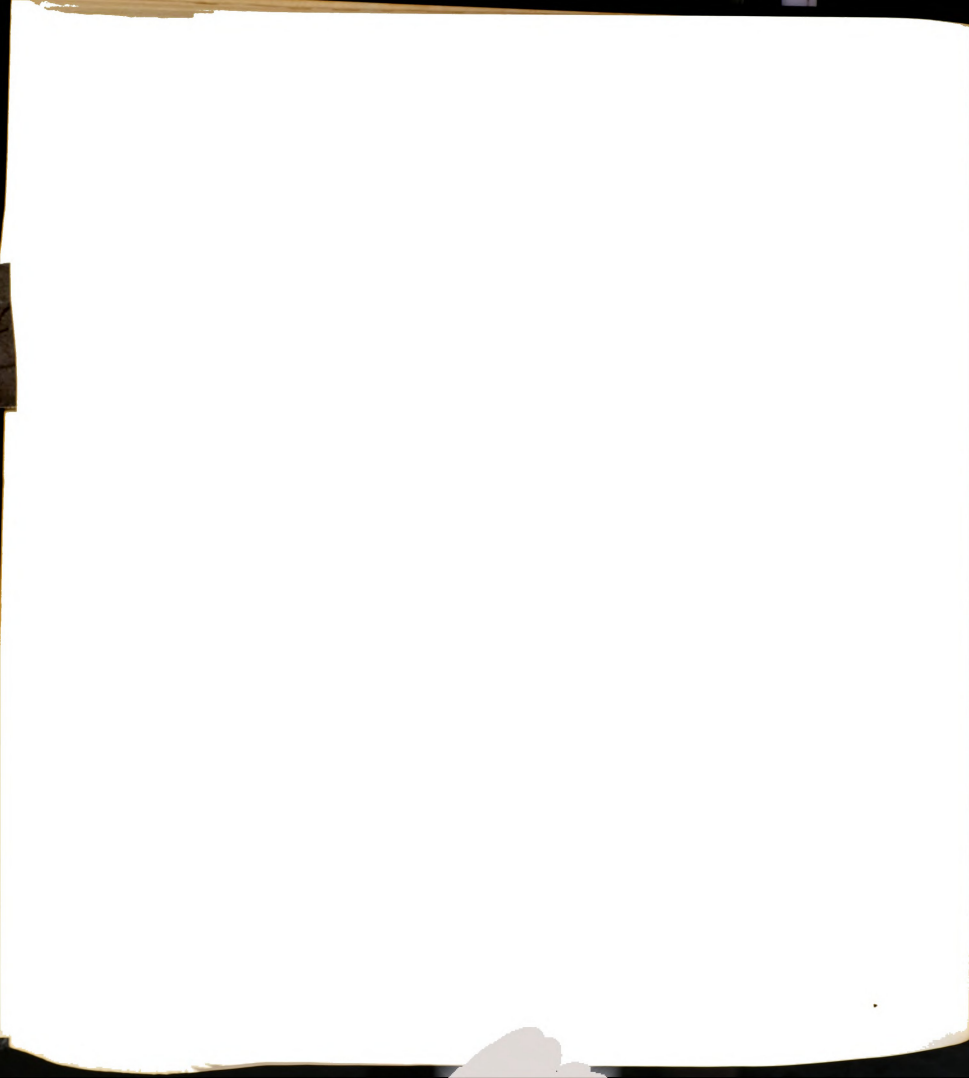
- 1 Kinds of handicapped persons experienced
 - P.Q.-HP, Item 1 (most contact)
 - P.Q.-HP, Item 2 (additional contacts - no. of)
- 2 Varieties of relationship with handicapped
 - P.Q.-HP, Item 3
- 3 Frequency of contact with physically handicapped
 - P.Q.-HP, Item 4
- 4 Ease of avoidance of contacts with handicapped
 - P.Q.-HP, Item 5
- 5 Personal gain through working with handicapped persons
 - P.Q.-HP, Item 6 (experienced gain)
 - P.Q.-HP, Item 7 (% of income)
- 6 Alternative opportunities available
 - P.Q.-HP, Item 9 (refers to other possible employment)
- 7 Enjoyment of contact with physically handicapped
 - P.Q.-HP, Item 8
- 8 Frequency of contact with mentally retarded persons
 - P.Q.-HP, Item 10
- 9 Frequency of contact with emotionally disabled persons
 - P.Q.-HP, Item 11



APPENDIX C

Variables, Administration Procedures, and Code Forms

C-2 Administration Procedures



PROCEDURES FOR ADMINISTRATION:

CROSS-CULTURAL ATTITUDE STUDY

John E. Jordan
Michigan State University
East Lansing, Michigan
December, 1964

The specific instructions will vary in detail from nation to nation. However, the following outline is presented on the basis of my experience thus far with the questionnaires and attitude scales.

1. Arrange for a meeting room and/or place. The respondents should have a table (or similar surface) on which to write and ample room between respondents (in group administration) to minimize influencing each other.
2. After introducing oneself (or being introduced), state briefly the following kind of rationale for the study:

"This is an international study of attitudes toward education; part of it deals with education in general and part of it deals with the education of handicapped persons. Each part is clearly stated. Remember, in a study like this, there are no right or wrong answers to the attitude questions. We want you to answer how you feel about certain things. Therefore, we do not want your name on the questionnaire. Please answer quickly, with your first idea first, and do not spend a lot of time thinking about each item.

Remember this is an international study and all the people in the other countries will be answering in the same manner. If there is no answer that exactly fits what you would like to answer, please choose the alternative nearest to your desired answer.

Please answer all items.



If you have any questions as you proceed, please raise your hand and we will come to you and discuss it individually so as not to disturb the other people. When we have all completed the questionnaires, I will be glad to discuss the study in more detail if you desire. Thank you very much for taking time to cooperate in the study."

3. Distribute the page of definitions.

"We will now distribute to you a page of definitions of certain handicapping conditions which will be referred to in some of the questionnaires. We will all take a few minutes to read these so we will all have the same idea about the same words. You may refer to these later if you so desire.

Also, we want you to put a number in the upper left hand corner of the page like this (show them what you mean). Since we do not want you to put your name on the questionnaire, you will use this number. In this manner no one will know your answers. We must have your number and group (special education, teacher, business, etc.) on each questionnaire so we can put all the answers of one person together at the end."

Here the respondents "number off" and see that no two persons have the same number. Remember if two people in a group have the same number, the data cannot be analyzed.

4. Distribute the attitude scales and questionnaires in the following order. In group administration be sure to pass out only one instrument at a time.

Order of Administration of Instruments

1. Page of definitions
2. Education Scale
3. Survey of Interpersonal Values
4. Personal Questionnaire
5. Handicapped Persons Scale
6. Personal Questionnaire: HP



5. Distribute the Education Scale. Have the respondent fill out data on the top of scale: (1) Number, (2) Sex, (3) Location, (4) Group, and (5) Date. Either instruct the respondents to read silently the instructions or the administrator may read them to the group; this is left to each country to do in the manner they consider most appropriate. Our experience shows that if the instructions are well understood on this first instrument, the other instruments are easily understood.

When the respondents have completed the Education Scale, collect them and distribute the next one as indicated above in Point Number Four. Proceed in a similar manner until all five instruments have been completed.

6. If situations arise where the instruments are left with the respondent (i.e., either in an office or to take home), try to impress on them the order in which to take them (e.g., number them 1-2-3-4-5 in the upper right hand corner) and not to look at them ahead of time.

Do not leave instruments with respondents except when absolutely necessary and in such cases mark on them later to indicate they were given in this manner.

7. Respondent identification. See discussion under Points Numbered 3 and 6 above. Remember we need a minimum of 50 persons per each of the four groups: (1) special education, (2) teacher-primary and secondary, (3) workers-blue and white collar, and (4) employers-business, commerce, industry. We would prefer to have more so secure as many as you can conveniently locate up to 100 per group.

Each of these respondents must fill out all five instruments, using the same respondent number and group. If either the respondent number or group is omitted or duplicated, the data cannot be collated for data analysis!

8. When you have secured enough completed sets of instruments for a "usual size" mailing package in your country, please mail to me rather than waiting to send all of them at one time. In this manner I can have the data scored and tabulated for computer processing in an orderly manner. If I receive all the data at one time, it will be difficult to hire assistants here at the university on any regular basis. Each time you mail a package of data, you should send me a letter describing it so I can keep records.



APPENDIX C

Variables, Administration Procedures, and Code Forms

C-3 Code Book



CODE BOOK

CROSS CULTURAL ATTITUDES TOWARD

EDUCATION: THEIR NATURE AND DETERMINANTS

INTERNATIONAL STUDY*

John E. Jordan
College of Education
Michigan State University
August 25, 1965

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 + for a one column no response, or -9 for a two column no response, or -99 for a three column no response will mean there was No Information or Respondent did not answer.
3. 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) is reserved to later indicate recoding after the item count is finished; i.e., after all data is key punched, run the data through the M.S.U. computer (ACT II, FCC, and/or Single-Column Frequency Distributions) to determine the patterns of response alternatives to a question. This will indicate if regrouping, etc., need to be considered for the item.
4. Coder instructions always follow a line across the page and are clearly indicated.
5. 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".
6. Under Code, the first number is the questionnaire question alternative and the second number is the actual code which is entered on the data sheets (i.e., 1-4; one 1 is the question-naire question alternative and 4 is the code).

* This code book is specifically for the United States sample thru Card 4. Limited modifications and/or additions are made in certain nations and/or states. Special instructions are appended for each study before scoring that sample.

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
1,2,3 Face Sheet	Nation and Location	<u>UNITED STATES</u> 001 - Mich., Mt. Pleasant 002 - Mich., Cadillac 003 - Mich., Ann Arbor 004 - Mich., Port Huron 005 - Mich., Lansing 006 - Mich., Walden Woods 007 - Mich., Flint 008 - Mich., Misc., Kal., Mid. 009 - Kansas, Wichita 010 - Ohio, Tiffin 011 - West Virginia 012 - Kentucky 013 - Georgia <u>LATIN AMERICA</u> 101 - Costa Rica 102 - Colombia 103 - Peru 104 - Argentina 105 - Mexico 106 - Surinam <u>EUROPE</u> 201 - England 202 - Holland 203 - Belgium 204 - France 205 - Yugoslavia 206 - Denmark 207 - Germany <u>ASIA</u> 301 - Israel 302 - Japan 303 - India 304 - Formosa <u>AFRICA</u> 401 - Kenya 402 - Rhodesia 403 - South Africa	



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
4,5	Face Sheet	Group Number (adminis- tration)	01 - 99 Check Special Instructions
6,7	Face Sheet	Respondent Number	01 - 99
8	Face Sheet	Sex of Respondent	1 - Masculine 2 - Feminine
9	(Code derived from Col's 22, 23, Card 1)	Occupational Recode (Interest group)	1 - Code 01 - 09, Rehab., Spec. Ed. 2 - Code 10 - 19, Education 3 - Code 20 - 45, Profes- sional, Business, Medical 4 - Code 50 - 86, White Col- lar, Blue Collar, Laborer
10	New	Occupational Recode (Spec. Ed., Rehab. SER)*	1 - Teacher, Educable Retarded, (Type A and Type C) 2 - Teacher, Trainable Retarded (Type B) 3 - Teacher, Hearing 4 - Teacher, Vision 5 - Speech Correction 6 - Visiting Teacher (Also Social Worker) 7 - Diagnostician 8 - Other (Professors, Supts., Administrators, etc.) + - Non-teacher
11,12	Face Sheet	Deck or Card Number	01
13,14	Face Sheet	Project Director, location and con- tent area	<u>LATIN AMERICA</u> 01 Felty: Costa Rica (total - pilot study) 02 Friesen: Peru and Colombia (total) 03 Taylor: Costa Rica (country study)

* If respondent is not an SER
"educational person", he received
a ±.



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
13,14 Face Sheet (continued)		<u>UNITED STATES</u>	
		31 Sinha: Ohio (parents- M. R., emot. dist. and normal)	
		32 Dickie: Kansas (total and blind scale)	
		33 Weir: Kansas (total and deaf scale)	
		34 Mader: Michigan (spec- ial educ. - intra)	
		35 Jordan: Michigan - Mt. Pleasant (Spec. Ed.)	
		<u>ASIA</u>	
		51 Cessna: Japan (total plus university stu- dents and government employees)	
		<u>EUROPE</u>	
		71 Boric: Yugoslavia (total)	
		72 Fabia: France (total)	
		73 Hansen: Denmark (total)	
		74 Loring: England (total)	
		75 Robaye: Belgium (total)	
		76 Schweizer: Netherlands (total)	
		77 Kreider: Europe (total)	
15,16 Face Sheet	Day of Admin- istration (Use the actual day)	01 to 31	
17,18 Face Sheet	Month of Adminis- tration	01 - January 02 - February 03 - March . .	

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
17,18 Face Sheet (continued)		10 - October 11 - November 12 - December	
19,20 Face Sheet	Year of Adminis- tration	64 - 1964 65 - 1965 66 - 1966 . 70 - 1970	
21 Face Sheet	Type of Adminis- tration	1 - Group 2 - Self-administered 3 - Interview, individual + - No information	
22,23 37 Q'aire	Occupation of Respon- dent* (Spe- cific)	(01 - 09) Rehab. & Spec. Ed. 01 - All administrative persons, public and private schools or agencies 02 - Teachers, elem. and secondary academic and vocational 03 - School Special Services (Psych., soc. work, speech, etc.) 04 - University teachers, professors, researchers, specialists, etc. 05 - Medical (Doctors, Den- tists, etc.) 06 - Other professional (Psych., Soc. worker, Speech, etc., not pri- marily in public or private schools) 07 - Para-medical (Nurse, O.T., R.T., P.T., ect.) 08 - Unskilled Help (Hospital aide, janitor, any non- prof., non-tech. role) 09 - Other	

* See page 4-2
865

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
22,23 37 Q'aire (continued)	Occupation of Respon- dent* (Spe- cific)	<u>(10 - 19) Educational personnel</u> <u>other than Rehab. and Spec. Ed.</u>	
		10 - Elementary teachers, (include elem. v.p.'s, counselors, etc.)	
		11 - Secondary teachers	
		12 - Guidance and personnel workers (psych., social work, counselor if not elementary)	
		13 - Other special services (Speech, spec. teacher, audiometric, etc.)	
		14 - Administrative (elem., sec., central office adm., including elem. principal, sec. v.p. and princ., etc., in non-teach.)	
		15 - University teachers, professors, researchers, specialists, etc.	
		16 - 19 Open	
		<u>(20 - 29) Medical, other than</u> <u>Rehab. and Spec. Ed.</u>	
		20 - General practitioners	
		21 - Surgeons	
		22 - Psychiatrists or psycho- analysts	
		23 - Dentists	
		24 - All other medical spec- ialties	
		25 - Open	
		26 - Tech. and Prof.: Nurse, O.T., P.T., R.T., Audio, etc.	
		27 - Non-tech. and non-prof.: aide, janitor, attendant, etc.	
		28 - 29 Open	

* See page 4-2
865

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
22,23 37 Q'aire (continued)	Occupation of Respon- dent* (Spe- cific)	<u>(30 - 39) Professional and Technical, not Spec. Ed. and Rehab. or Medical or Educ.</u> 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 <u>(40 - 45) Business and Industry, Managers, officials, prop.'s</u> 40 - Gov't and other bureau- cratic officials: public administrators and offi- cers, union officials, stage inspectors, public utility, telephone offic- ials, etc. 41 - Manufacturing, industrial officials, exec's, etc. 42 - Non-mfg., service, indus- try: bankers, brokers, insurance, real estate 43 - Retail trades: food, clothing, furniture, gaso- line, vehicle sales, etc. 44 - General: i.e., manager executive, etc., no other qualifications 45 - Open <u>(46 - 49) Farm owners, operators and managers of large farms, e.g., heavy equipment and/or many empl.</u>	

* See page 4-2



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
22,23 37 Q'aire (continued)	Occupation of Respon- dent* (Spe- cific)	46 - Farm owner 47 - Farm operator (renter) 48 - Farm manager 49 - Open	
		<u>(50 - 59) White Collar: office, clerical, etc.</u>	
		50 - Clerical and similar: tellers, bookkeepers, cashiers, secretaries, shipping clerks, attend- ants, telephone operators, library asst's, mail clerks and carriers, file clerks, etc.	
		51 - Sales workers: advertising, sales clerks, all mfg., wholesale, retail and other	
		52 - Small shopkeeper or dealer	
		54 - 59 Open	
		<u>(60 - 69) Blue Collar: crafts- men, foremen, and kindred work</u>	
		60 - Craftsmen: carpenters, bakers, electricians, plumbers, machinists, tailors, toolmakers, photographers, etc.	
		61 - Foremen: all construc- tion, mfg., transporta- tion and communication, and other industries	
		62 - Servicemen: telegraph, telephone, etc.	
		63 - Mechanics and repairmen	
		64 - Shoemakers, roofers, painters, and plasterers	
		65 - Merchant marine, sailors (non-military)	

* See page 4-2



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
22,23 37 Q'aire (continued)	Occupation of Respon- dent* (Spe- cific)	66 - Bus and cab drivers, motormen, deliverymen, chauffeurs, truck and tractor drivers 67 - Operatives of all other mech. equipment (machine, vehicle, misc. mfg.) 68 - 69 Open	
		<u>(70 - 74) Service and Private Household workers)</u>	
		70 - Private household: laun- dress, housekeeper, cook 71 - Firemen and policemen, sheriffs, and bailiffs 72 - Attendants, professional and personal (valet, mas- seur, misc. mfg.) 73 - Misc. attendants and services: hospital attendants, bootblacks, cooks 74 - Open	
		<u>(75 - 79) Military Personnel</u>	
		75 - Ranking officers, all services (Navy Commander and up, Army and Marines Colonel and up) 76 - Junior Officers, Army and Air 77 - Junior Officers, Navy and Marines 78 - Non-commissioned personnel, Army and Air 79 - Non-commissioned personnel, Navy and Marines	
		<u>(80 - 86) Laborers</u>	

* See page 4-2
865



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
22,23 37 Q'aire (continued)	Occupation of Respon- dent* (Spe- cific)	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)	
		81 - Non-mfg., non-industrial: fishermen, hunters, lumber- men, miners, gardeners, teamsters, garage laborers, etc.	
		82 - Manufacturing of durable goods: wood, clay, stone (stonecutter), metal, glass plastic, machinery, of all kinds	
		83 - Mfg. of non-durable goods: food (bakery, beverages, etc.), tobacco, clothing, cloth, paper, printing, chemicals, rubber, leather, etc.	
		84 - Non-mfg. industries: rail- road, construction, trans- portation, workers, etc.	
		85 - 86 Open	
		<u>(87) No employment</u>	
		87 - Persons that haven't worked, such as housewives, students or others who have never had a regular occupation	

* Instructions for Coder: OCCUPATIONS, COLUMNS 22-23. Coding
information is derived from two sources:

1. Occupational description of groups as listed by the administrator.
2. Personal statements by the respondents in Question 37 of the questionnaire. Question 37 is the primary source of information. If vague or incomplete, score entirely from notes of administrator.

* See page 4-2



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
24	37 Q'aire	Current	1 - Employed or self-employed
		Employment	2 - Retired
		Status*	3 - Temporarily out of work
			4 - Housewife, but formerly employed
			5 - Unable to work (other than retired or housewife) but formerly employed
			6 - Student or persons trained for employment but not working for various reasons
25	1 thru	All ques-	1 - 1, strongly disagree
thru	20 <u>H-P</u>	tions in	2 - 2, disagree
44	<u>Content**</u>	handicap-	3 - 3, agree
		ped per-	4 - 4, strongly agree
		sons scale	
		are to be	
		scored from	
		<u>raw</u> data.	
		See instruc-	
		tions below.	

* Instructions for Coder: EMPLOYMENT STATUS, COLUMN 24. Code from questionnaire Question 37 if person clearly states employment status. If no employment stated, and no indication with certainty from the administrator, score +.

** 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.

The content part of the question is the first half of the question (i.e., the first score).

1. Reverse the content response numbering for the Handicapped Persons Scale (NOT the intensity response number) for items 2, 5, 6, 11, and 12, as follows:

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>

- | <u>Column-Ques.</u> | <u>Item Detail</u> | <u>Code</u> | <u>Recode*</u> |
|---------------------|---|-------------|----------------|
| 2. | Special instructions for <u>NO RESPONSE</u> . Count the number of <u>NO RESPONSE</u> items, if more than <u>6</u> occur, do not score respondent for this scale. If there are <u>6 or less</u> in total, and <u>3 or less</u> in sequence, the <u>NO RESPONSE</u> statement is to be scored either <u>1</u> or <u>2</u> by the random procedure of coin flipping. | | |
| | If a head is obtained, the score assigned will be <u>1</u> . | | |
| | If a tail is obtained, the score assigned will be <u>2</u> . | | |
| 3. | <u>TOTAL THE RAW SCORES</u> FOR EACH RESPONDENT AND WRITE THE TOTALS ON THE TRANSCRIPTION DATA SHEET DIRECTLY <u>BELOW THE COLUMN</u> <u>TOTALED.*</u> | | |
| 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 <u>1</u> IS CIRCLED IN THE INTENSITY SECTION OF QUESTION ONE, SCORE IT AS <u>1</u> ON THE CORRESPONDING SECTION OF THE TRANSCRIPTION SHEET. | | |
| 5. | Dichotomization Procedures (i.e., for MSA - applied to all scales). | | |
| | a) Using <u>raw data</u> scores (i.e., the actual number circled by the respondent) via the Hafterson <u>CUT</u> Program on the M.S.U. CDC 3600, determine the <u>point of least error</u> for each item on the <u>content scales</u> . | | |
| | b) Using this point (i.e., between <u>1</u> and <u>2</u> , or between <u>2</u> and <u>3</u> or between <u>3</u> and <u>4</u>) <u>rescore</u> the items, via recode cards, as <u>0</u> , <u>1</u> via the Hafterson MSA Program on the M.S.U. CDC 3600 to <u>determine which items form a scale</u> . Run at both .01 and .05 level. | | |
| | c) For <u>Handicapped Persons Scale</u> ¹ , items are scored <u>0</u> above the column break, <u>1</u> below the column break. For <u>education Scale scoring</u> , the reverse is true: items are scored <u>1</u> above the column break, <u>0</u> below the column break. | | |
| | d) Using the same procedure in point 5-a above, determine the <u>CUT points for the intensity component of each item</u> . | | |

* 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)

¹ HP scale, blind scale, and deaf scale.



- | <u>Column-Ques.</u> | <u>Item Detail</u> | <u>Code</u> | <u>Recode*</u> |
|---------------------|---|-------------|----------------|
| 5. e) | Enter the MSA Program with the <u>CUT points for the intensity component</u> and scale as in Point No. <u>5-b</u> for <u>content</u> . | | |
| f) | <u>Adjusted total scores for content and intensity</u> . Sum the dichotomized content and intensity scores (i.e., <u>0</u> , <u>1</u>) obtained by the above procedure for each respondent on these items that scaled for both content and intensity. Maximum score will be <u>1 x the number of the same items that scaled on both</u> 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 <u>cultural group</u> (or other desired groupings) via the method detailed on pages 221-234 by Guttman (1950). | | |

6. Dichotomization Procedure (alternative to no. 5 above). Attempt to program the CUT Program into the MSA so that both procedures under 5-a and b are conducted jointly.

45	1 thru	Handicapped	1 - 1, not strongly at all
thru	20 <u>H-P</u>	Persons	2 - 2, not very strongly
64	<u>Intensity*</u>	Scale	3 - 3, fairly strongly
		<u>Intensity</u>	4 - 4, very strongly

- Except for NO RESPONSE, intensity scores are to be determined as noted in the preceding section regarding Content.
- 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.

* Instructions for Coder: HANDICAPPED PERSONS SCALE, INTENSITY, COLUMNS 45-64. See instructions 1 and 2 above and 3 on the next page.

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
3.	Intensity questions which are unscored, and which occur when the content part of the question is <u>also unscored</u> , will be scored at the highest point below the respondent's own median on the other intensity questions in the questionnaire; i.e., if respondent generally scored intensity questions either <u>4</u> or <u>3</u> , so that the median was in between <u>3</u> and <u>4</u> , score NO RESPONSE <u>2</u> , and so forth.		
65	3,4,6,	Education	1 - 1, strongly disagree
thru	10,11	Scale <u>Tradi-</u>	2 - 2, disagree
74	12,13	<u>tional, Con-</u>	3 - 3, agree
	14,18	<u>tent Respon-</u>	4 - 4, strongly agree
	19*	<u>ses **</u>	

1. Items are to be scored on the transcription sheet as circled by the respondent.
2. Follow the procedures outlined in caps on Pages 1-10, 1-11, and 1-12 for the Handicapped Persons Scale. Be sure to score only those items indicated above as applying to the education traditional scale, content.

* The traditional and the progressive scales are both in the Kerlinger education scale but the responses are scored separately on the transcription sheet.

** Instructions for Coder: EDUCATION SCALE, TRADITIONAL, CONTENT, COLUMNS 65-74. See instructions 1 and 2 on page 1-13.

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
1,2,3	Face Sheet	Nation and Location	Same as Card 1, page 1-1
4,5	Face Sheet	Group Number	01 - 99
6,7	Face Sheet	Respondent Number	01 - 99
8	Face Sheet	Sex of Respondent	Same as Card 1, page 1-2
9	37 Q'aire	Occupational Recode (Interest group)	Same as Card 1, page 1-2
10	37 Q'aire	Occupational Recode (Spec. Ed.- Rehab. SER)	Same as Card 1, page 1-2
11,12	Face Sheet	Deck or Card Number	02
13,14	Face Sheet	Project Director	Same as Card 1, pages 1-2 and 1-3
15,16	Face Sheet	Day of Administration	01-31
17,18	Face Sheet	Month of Administration	01-12
19,20	Face Sheet	Year of Administration	Same as Card 1, page 1-4
21	Face Sheet	Type of Administration	Same as Card 1, page 1-4



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
22,23 Face Sheet	Occupation of Respondent	Same as Card 1, pages 1-4 through 1-9	
24 Face Sheet	Current Employment Status	Same as Card 1, page 1-10	
25 3,4,6,10, thru 11,12,13, 34 14,18,19	Education Scale, <u>Traditional</u> , <u>Intensity</u> Responses*	1 - 1, not strongly at all 2 - 2, not very strongly 3 - 3, fairly strongly 4 - 4, very strongly	
35 1,2,5,7, thru 8,9,15, 44 16,17,20	Education Scale, <u>Progressive</u> , <u>Content</u> Responses**	1 - 1, strongly disagree 2 - 2, disagree 3 - 3, agree 4 - 4, strongly agree	

* Instructions for coder: EDUCATION SCALE, TRADITIONAL, INTENSITY, COLUMNS 24-33. Intensity questions are scored as indicated in caps on pages 1-11, 1-12 and 1-13 and as noted before, Handicapped Persons Scale, pages 1-10, 1-11 and 1-12, instructions 1 through 5.

** Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, CONTENT, COLUMNS 34-43.

1. Items are to be scored exactly as circled.
2. Follow the procedures outlined in caps on pages 1-11, 1-12 and 1-13, Handicapped Persons Scale. Be sure to score only those items indicated above as belonging to the education progressive scale content.



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
45	1,2,5,7,	Education	1 - 1, not strongly at all
thru	8,9,15,	Scale, <u>Pro-</u>	2 - 2, not very strongly
54	16,17,20	<u>gressive</u>	3 - 3, fairly strongly
		<u>Intensity</u>	4 - 4, very strongly
		Responses*	
55-56	<u>Raw S</u> score	Value scale, <u>Support</u> score**	01 - 32
57-58	<u>Raw C</u> score	Value scale, <u>Conformity</u> score**	01 - 32
59-60	<u>Raw R</u> score	Value scale, <u>Recognition</u> score** (comparative)	01 - 32
61-62	<u>Raw I</u> score	Value scale, <u>Indepen-</u> <u>dence</u> score**	01 - 32
63-64	<u>Raw B</u> score	Value scale, <u>Benevolence</u> score** (asset)	01 - 32
65-66	<u>Raw L</u> score	Value scale, Leadership score** (comparative)	01 - 32

* Instructions for Coder: EDUCATION SCALE, PROGRESSIVE, INTENSITY, COLUMNS 44-53. Same as instructions for Education Scale, Progressive content, see page 2-2.

** Entries for columns 63-74 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."

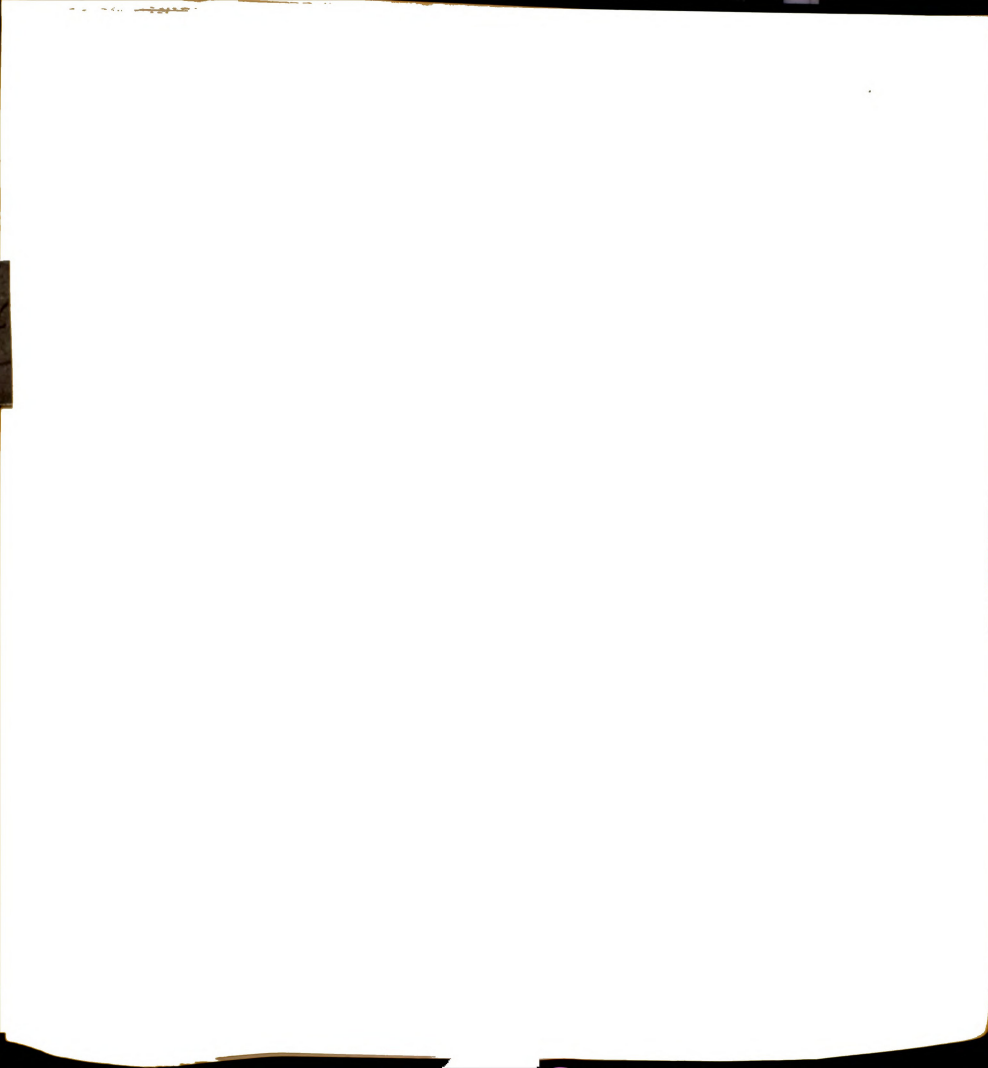


<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
67-68 Sum of item scores, 1-20, <u>Content</u>	Adjusted totals based on item dichotomiza- tion, <u>H.P.</u> <u>Scale</u> , <u>Con-</u> <u>tent*</u>	(Check dich. for no. to use here) Code will be: <u>00</u> or <u>+9</u> to obtained score	
69-70 Sum of item scores, 1-20, <u>Intensity</u>	Adjusted totals based on item dichotomiza- tion, <u>H.P.</u> <u>Scale</u> , <u>Inten-</u> <u>sity*</u>	(Check dich. for no. to use here) Code will be: <u>00</u> or <u>+9</u> to obtained score	
71-72 Sum of item scores, 3, 4,6,10,11, 12,13,14, 18,19	Adjusted totals based on item dichotomiza- tion <u>Educa-</u> <u>tion Tradi-</u> <u>tional Scale</u> , <u>Content*</u>	(Check dich. for no. to use here) Code will be: <u>00</u> or <u>+9</u> to obtained score	
73-74 Sum of item scores, 3, 4,6,10,11, 12,13,14, 18,19	Adjusted totals based on item dichotomiza- tion <u>Educa-</u> <u>tion Tradi-</u> <u>tional Scale</u> , <u>Intensity*</u>	(Check dich. for no. to use here) Code will be: <u>00</u> or <u>+9</u> to obtained score	

* See Card 1, page 1-12, instruction no. 5-f, to ascertain how
adjusted total scores are obtained.

<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
75-76 Sum of item scores, 1, 2,5,7,8,9, 15,16,17,20	Adjusted totals based on item dichotomiza- tion <u>Educa-</u> <u>tion Progres-</u> <u>sive Scale,</u> <u>Content*</u>	(Check dich. for no. to use here) Code will be: <u>00</u> or <u>+9</u> to obtained score	
77-78 Sum of item scores, 1, 2,5,7,8,9, 15,16,17,20	Adjusted totals based on item dichotomiza- tion <u>Educa-</u> <u>tion Progres-</u> <u>sive Scale,</u> <u>Intensity*</u>	(Check dich. for no. to use here) Code will be: <u>00</u> or <u>+9</u> to obtained score	

* See Card 1, page 1-12, instruction No. 5-f, to ascertain how adjusted total scores are obtained.

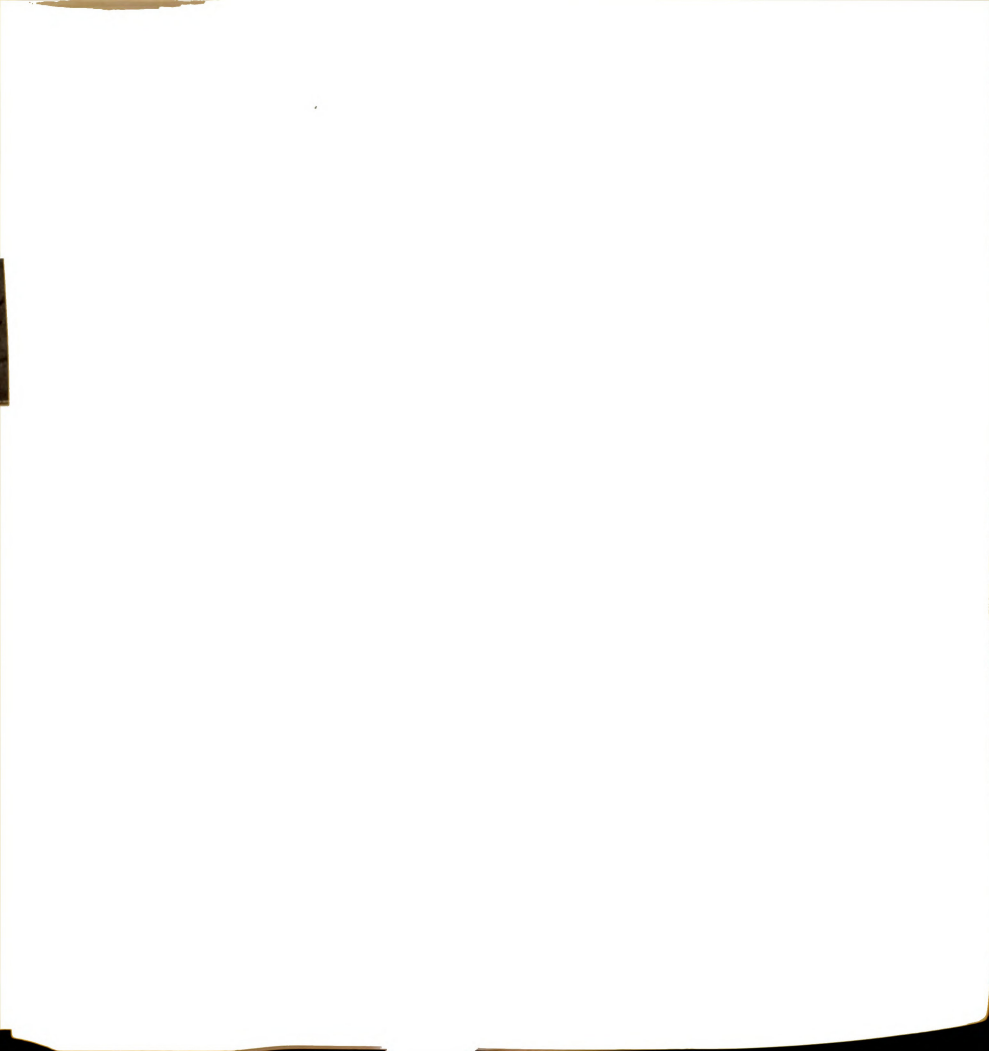


<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
1,2,3	Face Sheet	Nation and Location	Same as Card 1, page 1-1
4,5	Face Sheet	Group Number	01-99
6,7	Face Sheet	Respondent Number	01-99
8	Face Sheet	Sex of Respondent	Same as Card 1, page 1-2
9	37 Q'aire	Occupational Recode (Interest group)	Same as Card 1, page 1-2
10	New	Occupational Recode (Spec. Ed.- Rehab. SER)	Same as Card 1, page 1-2
11,12	Face Sheet	Deck or Card Number	03
13,14	Face Sheet	Project Director	Same as Card 1, pages 1-2 and 1-3
15,16	Face Sheet	Day of Administration	01-31
17,18	Face Sheet	Month of Administration	01-12
19,20	Face Sheet	Year of Administration	Same as Card 1, page 1-4
21	Face Sheet	Type of Administration	Same as Card 1, page 1-4



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
22,23	Face Sheet	Occupation of Respond- ent	Same as Card 1, pages 1-4 through 1-9
24	Face Sheet	Current employment status	Same as Card 1, page 1-10
25,26	1 Q'aire	Contact group (Educ.)	<u>Primary</u> 1 - 01, Elem. School 2 - 02, Sec. School 3 - 03, University 4 - 04, Other as specified 5 - 05, No experience
27,28	2 Q'aire	Contact group (Educ.)	<u>Secondary</u> 1 - 01 2 - 02 3 - 03 SAME 4 - 04 5 - 05
29,30	3 Q'aire	Educational Contact (Varieties)	1 - 01 Know nothing about Ed 2 - 02 Read little about Ed 3 - 03 Studied about Ed 4 - 04 Neighbor works 5 - 05 Friend works 6 - 06 Relative works 7 - 07 Family works 8 - 08 I work in Ed 9 - 09 Other

-
- (1) If any combination of alternatives 1, 2 and 3 are circled, code as 10, Impersonal Contact
- (2) If any combination of alternatives 4-8 are circled, code as 11, Personal Contact.
- (3) If alternatives are circled in both division, code as 12, Both Impersonal and Personal Contact. This requires coding alternative OTHER (i.e., alternative 9) as either personal or impersonal contact; i.e., according to its content.



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
31	4 Q'aire	Amount of Contact (Educ.)	1 - 1, less than 3 months 2 - 2, 3 months to 6 months 3 - 3, 6 months to 1 year 4 - 4, 1 year to 3 years 5 - 5, 3 years to 5 years 6 - 6, 5 years to 10 years 7 - 7, over 10 years 8 - 8, over 15 years
32	5 Q'aire	Percent of income from Education	1 - 1, less than 10% 2 - 2, 10 to 25% 3 - 3, 25 to 50% 4 - 4, 50 to 75% 5 - 5, 75 to 100%
33	6 Q'aire	Enjoyment of Educational Work	1 - 2, disliked 2 - 3, not much 3 - 4, somewhat 4 - 5, enjoyed
34	7 Q'aire	Alternative work (to educ.)	1 - 1, no information 2 - 2, unavailable 3 - 3, not acceptable 4 - 4, not quite acceptable 5 - 5, acceptable
35,36	8 Q'aire	Age	20 - 20 years 21 - 21 years . . 40 - 40
37	9 Q'aire	Community in which reared. If more than one is checked try to determine in which one the respond- ent spent most of the time. If	1 - 1 country 2 - 2 country town 3 - 3 city 4 - 4 city suburb



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
37 9 Q'aire (continued)	impossible, try to choose a median (i.e. country, city, score country town)		
38 10 Q'aire	Employment community (recent)	1 - 1, country 2 - 2, country town 3 - 3, city 4 - 4, city suburb	
39 11 Q'aire	Recent Resi- dence	1 - 1, country 2 - 2, country town 3 - 3, city 4 - 4, city suburb	
40 12 Q'aire	Marital Status	1 - 1, married 2 - 2, single 3 - 3, divorced 4 - 4, widowed 5 - 5, separated	
41,42 13 Q'aire	Number of children. If blank, check Ques. 13. If single, score <u>00</u> ; if married, score <u>-9</u> .	1 - 01 2 - 02 3 - 03 · · 10 - 10	
43,44 14 Q'aire	Yearly Income (self-family) (for other nations see Special Instructions)	<u>UNITED STATES</u> 01 - less than \$1,000 02 - \$1,000 to \$1,999 03 - \$2,000 to \$2,999 · 10 - \$9,000 to \$9,999	



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
45	15 Q'aire	Comparative	1 - 1, much lower
		Income	2 - 2, lower
		(self-fam-ily)	3 - 3, about the same
			4 - 4, higher
			5 - 5, much higher
46,47	16 Q'aire	Brothers.	1 - 01
		If the	2 - 02
		respondent	3 - 03
		answers	. .
		only one	10 - 10
		question	
		(17 or 18)	
		and other	
		is blank,	
		assume it	
		to be zero.	
48,49	17 Q'aire	Sisters	Same as number of brothers
51,51	None	Siblings -	1 - 01
		Obtain by	. .
		summing	15 - 15
		above Ques-	
		tions 16 and	
		17, Col's 45,	
		46 and 47, 48	
52	18 Q'aire	Fathers'	1 - 1, much lower
		Income:	2 - 2, lower
		Comparative	3 - 3, about the same
			4 - 4, higher
			5 - 5, much higher
53	19 Q'aire	Religious	1 - 1, Roman Catholic
		Affiliation	2 - 2, Protestant
			3 - 3, Jewish
			4 - 4, None
			5 - 5, Other
			6 to 9, Other major religions



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
54	20 Q'aire	Religion (Import- ance)	1 - 1, No religion 2 - 2, Not very 3 - 3, Fairly 4 - 4, Very
55	21 Q'aire	Personaliam (job-amount)	1 - 1, none 2 - 2, no contact 3 - 3, less than 10% 4 - 4, 10 to 30% 5 - 5, 30 to 50% 6 - 6, 50 to 70% 7 - 7, 70 to 90% 8 - 8, over 90%
56	22 Q'aire	Personalism (job-import- tance of)	1 - 1, not at all 2 - 2, not very 3 - 3, fairly 4 - 4, very
57	23 Q'aire	Personalism (job-diffu- sion)	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%
58	24 Q'aire	Social Class Position (Self)	1 - 1, lower 2 - 2, lower middle 3 - 3, middle 4 - 4, upper middle 5 - 5, upper
59	25 Q'aire	Social Class Position (Father)	Same as above



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
60	26 Q'aire	Education (Self-amount). If more than one is circled, choose the highest amount or determine the appropriate 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
61	27 Q'aire	Education (Self-comparative)	1 - 1, much less 2 - 2, less 3 - 3, average 4 - 4, more 5 - 5, much more
62	28 Q'aire	Education (Father - comparative)	1 - 1, much less 2 - 2, less 3 - 3, average 4 - 4, more 5 - 5, much more
63	29 Q'aire	Housing (type of)	1 - 1, rent house 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
64	30 Q'aire	Housing (rental-month) (for other nations see Special Instructions)	<u>UNITED STATES</u> 1 - \$20 or less 2 - 21 - 40 (dollars) 3 - 41 - 75 4 - 76 - 125 5 - 126 - 200 6 - 201 - 300 7 - 300 or more



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
65	31-A Q'aire	Institutional Satisfaction Elementary Schools	1 - 3 do not know 2 - 1 poor 3 - 2 fair 4 - 4 good 5 - 5 excellent
66	31-B Q'aire	Institutional Satisfaction Secondary Schools	Same
67	31-C Q'aire	Institutional Satisfaction Universities	Same
68	31-D Q'aire	Institutional Satisfaction Businessmen	Same
69	31-E Q'aire	Institutional Satisfaction Labor	Same
70	31-F Q'aire	Institutional Satisfaction Government (local)	Same
71	31-G Q'aire	Institutional Satisfaction Government (National)	Same
72	31-H Q'aire	Institutional Satisfaction Health Services	Same
73	31-I Q'aire	Institutional Satisfaction Churches	Same



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
74	32 Q'aire	Residency (current length)	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
75	33 Q'aire	Residency (change- recent)	1 - 1, yes 2 - 2, no



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
1,2,3	Face Sheet	Nation and Location	Same as Card 1, page 1-1
4,5	Face Sheet	Group Number	01 - 99
6,7	Face Sheet	Respondent Number	01 - 99
8	Face Sheet	Sex of Respondent	Same as Card 1, page 1-2
9	37 Q'aire	Occupational Recode (Interest group)	Same as Card 1, page 1-2
10	New	Occupational Recode (Spec. Ed.- Rehab. SER)	Same as Card 1, page 1-2
11,12	Face Sheet	Deck or Card Number	04
13,14	Face Sheet	Project Director	Same as Card 1, pages 1-3 and 1-3
15,16	Face Sheet	Day of Administration	01-31
17,18	Face Sheet	Month of Administration	01-12
19,20	Face Sheet	Year of Administration	Same as Card 1, page 1-4
21	Face Sheet	Type of Administration	Same as Card 1, page 1-4



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
22,23 Face Sheet	Occupation of Respondent	Same as Card 1, pages 1-4 through 1-9	
24 Face Sheet	Current Employment Status	Same as Card 1, page 1-10	
25 34 Q'aire	Job change (recent)	1 - 1, yes 2 - 2, no	
26 35 Q'aire	Residency (change frequency) (i.e., 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	
27 36 Q'aire	Job (change frequency) (i.e., 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	
28,29 37 Q'aire	Occupation (Specific)	Same as Card 1, pages 1-4 through 1-9	
30 38 Q'aire	Religiosity (norm conformity)	1 - 1, no religion 2 - 2, seldom 3 - 3, sometimes 4 - 4, usually 5 - 5, almost always	
31 39 Q'aire	Change Orientation (Health Practices)	1 - 1, no 2 - 2, probably not 3 - 3, maybe 4 - 4, yes	
32 40 Q'aire	Change Orientation (Child Rearing)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	



<u>Column-Ques.</u>		<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
33	41 Q'aire	Change Ori- entation (Birth con- trol Prac- tices)	1 - 1, always right 2 - 2, usually right 3 - 3, probably wrong 4 - 4, always wrong	
34	42 Q'aire	Change Ori- entation (Automation)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	
35	43 Q'aire	Change Ori- entation (Political Leaders)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	
36	44 Q'aire	Education (aid to - local)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	
37	45 Q'aire	Education (aid to - federal)	1 - 1, strongly disagree 2 - 2, slightly disagree 3 - 3, slightly agree 4 - 4, strongly agree	
38	46 Q'aire	Education (planning responsi- bility)	1 - 1, only parents 2 - 2, only city or local government 3 - 3, primarily federal government	
39	47 Q'aire	Change Ori- entation (self)	1 - 1, very difficult 2 - 2, somewhat difficult 3 - 3, slightly easy 4 - 4, very easy	
40	48 Q'aire	Change Ori- entation (self-role adherence)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly	



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
41	49 Q'aire	Change Ori- entation (self- routine job)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly
42	50 Q'aire	Personalism (Famialism- Parental ties)	Same
43	51 Q'aire	Personalism (Other ori- entation)	1 - 1, disagree strongly 2 - 2, disagree slightly 3 - 3, agree slightly 4 - 4, agree strongly
44	52 Q'aire	Future Ori- entation (Planning)	1 - 1, agree strongly 2 - 2, agree slightly 3 - 3, disagree slightly 4 - 4, disagree strongly
45	53 Q'aire	Future Ori- entation (Happiness)	1 - 1, nothing 2 - 2, money 3 - 3, friends 4 - 4, job 5 - 5, health 6 - 6, other
46,47	54 Q'aire	Future Ori- entation (Happiness possibility)	01 - Nothing 02 - Marriage 03 - Divorce 04 - Friends 05 - Religion (Satisfaction with life) 06 - Money 07 - Job 08 - Education 09 - Health (Mental) 10 - Health (Physical) -9 - No response



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
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HANDICAPPED PERSONS QUESTIONNAIRE

48	1-Q-HP	HP Contact Group (Primary)	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
49,50	2-Q-HP	HP Contact Group (Secondary)	00 If there was no contact to and questions are not answered score <u>0</u> . The score for this question is the <u>score</u> of the response alternatives circled, i.e., scores can range from <u>0</u> to <u>8</u> .
51,52	3-Q-HP	HP Contact (varieties)	1 - 01, Minimum knowledge 2 - 02, Studied about HP 3 - 03, Friend HP 4 - 04, Relative HP 5 - 05, Worked with HP 6 - 06, Family HP 7 - 07, Self is HP - 08) - 09)* See note below - 10)
53	4-Q-HP	HP Contact (amount)	1 - 1, less than ten 2 - 2, ten to fifty 3 - 3, fifty to 100 4 - 4, 100 to 500 5 - 5, over 500

* NOTE: If either or both alternatives 1 and 2 are circled, code as 08 - Impersonal contact. If either or all alternatives 3-7 are circled, code as 09 - Personal contact. If alternatives from both preceding divisions are circled, code as 10 - Impersonal and Personal contact.



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
54	5-Q-HP	HP Contact (ease of avoidance)	1 - 1, great difficulty 2 - 2, considerable difficulty 3 - 3, some inconvenience 4 - 4, no inconvenience
55	6-Q-HP	HP Contact (gain from)	1 - 1, no rewards 2 - 2, paid 3 - 3, credit 4 - 4, paid and credit
56	7-Q-HP	HP Contact (% income)	1 - 1, less than 10% 2 - 2, 10 to 25% 3 - 3, 25 to 50% 4 - 4, 50 to 75% 5 - 5, over 75%
57	8-Q-HP	HP Contact (enjoyment)	1 - 1, disliked, great 2 - 2, disliked, little 3 - 3, liked, some 4 - 4, definitely enjoyed
58	9-Q-HP	HP Contact (alternatives to)	1 - 1, No information on alternatives 2 - 2, No other job available 3 - 3, Other available job <u>NOT</u> acceptable 4 - 4, Other available job acceptable
59	10-Q-HP	Contact (amount- M.R.)	1 - 1, less than 10 2 - 2, 10 to 50 3 - 3, 50 to 100 4 - 4, 100 to 500 5 - 5, over 500
60	11-Q-HP	Contact (amount- EDP)	Same



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
61,62 Sum of item scores 1-20 <u>Content</u>	Handicapped Persons Scale Total <u>Content Raw</u> Score, entry on trans- cription sheet	00-80	
63,64 Sum of item scores 1-20 <u>Intensity</u>	Handicapped Persons Scale Total <u>Intensity</u> <u>Raw</u> Score, entry on transcrip- tion sheet	00-80	
65,66 Sum of item scores 3, 4,6,10,11, 12,13,14, 18,19	Education Scale, <u>Tra-</u> <u>ditional</u> Total <u>Raw</u> <u>Content</u> score entry on transcrip- tion sheet	00-40	
67,68 Sum of item scores 3, 4,6,10,11, 12,13,14, 18,19	Education Scale, <u>Tra-</u> <u>ditional</u> Total <u>Raw</u> <u>Intensity</u> , score entry on transcrip- tion sheet	00-40	



<u>Column-Ques.</u>	<u>Item Detail</u>	<u>Code</u>	<u>Recode*</u>
69,70 Sum of item scores 1, 2,5,7,8, 9,15,16, 17,20	Education Scale, <u>Pro-</u> <u>gressive</u> Total <u>Raw</u> <u>Content</u> score entry on transcrip- tion sheet	00-40	
71,72 Sum of item scores 1, 2,5,7,8, 9,15,16, 17,20	Education Scale, <u>Pro-</u> <u>gressive</u> Total <u>Raw</u> <u>Intensity</u> score entry on transcrip- tion sheet	00-40	

APPENDIX C

Variables, Administration Procedures, and Code Forms

C-4 Special Instructions for
Japan

Code Book
JAPAN (302)
(SPECIAL INSTRUCTIONS)

<u>Column</u>	<u>Ques.</u>	<u>Item Detail</u>	<u>Code</u>
		<u>Card 1</u>	
4-5	Face sheet	Group number	01 Special education teachers 02 Teachers 03 Managers, executives 04 Laborers 05 Government officials
33	6 Q'aire	Enjoyment of Educational work	1-1 disliked 2-2 not much 3-3 somewhat 4-4 enjoyed
43-44	14 Q'aire	Income (360 yen = \$1.00)	01 0 to ¥100,000 02 ¥100,001 to ¥200,000 . . 10 ¥900,001 to ¥1,000,000 etc. in intervals of ¥100,000 99 over ¥9,800,000
53	19 Q'aire	Religious Affiliation	1-1 Roman Catholic 2-2 Protestant 3-3 Jewish 4-4 Buddhist 5-5 Shinto 6-6 other 7-7 none
64	30 Q'aire	Housing (rental-month) (360 yen = \$1.00)	1 0 - ¥3,000 2 ¥3,001 - ¥6,000 3 ¥6,001 - ¥9,000 4 ¥9,001 - ¥12,000 5 ¥12,001 - ¥15,000 6 ¥15,001 - ¥20,000 7 ¥20,001 - ¥35,000 8 ¥35,001 - ¥50,000 9 over ¥50,000

Code Book, JAPAN (302), Special Instructions, page 2

<u>Column</u>	<u>Ques.</u>	<u>Item Detail</u>	<u>Code</u>
		<u>Card 4</u>	
31	39 Q'aire	Change orientation (Health Practices)	1-1 probably not 2-2 no 3-3 maybe 4-4 yes
58	9-Q-HP	Contact (Alternatives to - HP)	1-1 no information on alternatives 2-2 no other job available 3-3 other available job <u>not</u> acceptable 4-4 other available job fairly acceptable 5-5 other job completely acceptable

APPENDIX C

Variables, Administration Procedures, and Code Forms

C-5 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. _____ (65)	_____ (25)	1. _____ (35)	_____ (45)
2. _____ (26)	_____ (46)	4. _____ (66)	_____ (26)	2. _____ (36)	_____ (46)
3. _____	_____	6. _____ (67)	_____ (27)	5. _____ (37)	_____ (47)
4. _____	_____	10. _____ (68)	_____ (28)	7. _____ (38)	_____ (48)
5. _____	_____	11. _____ (69)	_____ (29)	8. _____ (39)	_____ (49)
6. _____	_____	12. _____ (70)	_____ (30)	9. _____ (40)	_____ (50)
7. _____	_____	13. _____ (71)	_____ (31)	15. _____ (41)	_____ (51)
8. _____	_____	14. _____ (72)	_____ (32)	16. _____ (42)	_____ (52)
9. _____	_____	18. _____ (73)	_____ (33)	17. _____ (43)	_____ (53)
10. _____ (34)	_____ (54)	19. _____ (74)	_____ (34)	20. _____ (44)	_____ (54)
11. _____	_____				
12. _____	_____				
13. _____	_____				
14. _____	_____				
15. _____ (39)	_____ (59)				
16. _____	_____				
17. _____	_____				
18. _____	_____				
19. _____	_____				
20. _____ (44)	_____ (64)				
_____	_____				

Location _____

Group _____

Respondent No. _____

APPENDIX C

Variables, Administration Procedures, and Code Forms

C-6 FCC I and II Variable
Computer Print Out

FCC I

JAPAN (302)

1 of 5

<u>Field No.</u>	<u>Question</u>	<u>Variable Name</u>	<u>Col.</u>
<u>Card 1</u>			
1	Face Sheet	Nation	3
2	Face Sheet	Sex	8
3	37 Q'aire	Interest Group Occupation	9
4	Face Sheet	Type of Administration	21
5	37 Q'aire	Current Employment Status	24
6-25	H-P Scale	H-P Content	25-44
26-45	H-P Scale	H-P Intensity	45-64
46-55	Education Scale	Trad. Education-Content	65-74

Card 2

First 24 Columns SAME as Card 1 except for Col. 11, 12
(i.e. Deck or Card No.)

56-65	Education Scale	<u>Trad.</u> Education-Intensity	25-34
66-75	Education Scale	<u>Prog.</u> Education-Content	35-44
76-85	Education Scale	<u>Prog.</u> Education-Intensity	45-54

Card 3

First 24 Columns SAME as Card 1 except for Col. 11, 12
(i.e. Deck or Card No.)

86	4 Q'aire	<u>Contact</u> (amount-education)	31
87	5 Q'aire	<u>Contact</u> (gain from education)	32
88	6 Q'aire	<u>Contact</u> (enjoyment-Education)	33
89	7 Q'aire	<u>Contact</u> (alternatives to education)	34
90	9 Q'aire	Early Youth Community	37
91	10 Q'aire	Employment Community (recent)	38
92	11 Q'aire	Residence Community (recent)	39
93	12 Q'aire	Marital Status	40
94	15 Q'aire	Income (comparative-self fam.)	45
95	18 Q'aire	Income (father's comparative)	52
96	19 Q'aire	Religious affiliation	53
97	20 Q'aire	Religion (importance)	54
98	21 Q'aire	Personalism (job-amount)	55

<u>Field No.</u>	<u>Question</u>	<u>Variable Name</u>	<u>Col.</u>
99	22 Q'aire	Personalism (job-importance of)	56
100	23 Q'aire	Personalism (job-diffusion)	57
101	24 Q'aire	Social class position (self)	58
102	25 Q'aire	Social class position (father)	59
103	26 Q'aire	Education (self-amount)	60
104	27 Q'aire	Education (self-comparative)	61
105	28 Q'aire	Education (father-comparative)	62
106	29 Q'aire	Housing (type of)	63
107	30 Q'aire	Housing (rental-month)	64
108	31-A Q'aire	Insti. satis. (elem schools)	65
109	31-B Q'aire	Insti. satis. (sec schools)	66
110	31-C Q'aire	Insti. satis. (Universities)	67
111	31-D Q'aire	Insti. satis. (Businessmen)	68
112	31-E Q'aire	Insti. satis. (Labor)	69
113	31-F Q'aire	Insti. satis. (local gov't.)	70
114	31-G Q'aire	Insti. satis. (National gov't.)	71
115	31-H Q'aire	Insti. satis. (Health services)	72
116	31-I Q'aire	Insti. satis. (churches, religion)	73
117	32 Q'aire	Residency (current length)	74
118	33 Q'aire	Residency (change-recent)	75

Card 4

1st 24 columns SAME except for Columns 11-12 (i.e. Deck or Card No.)

119	34 Q'aire	Job (change-recent)	25
120	35 Q'aire	Residency (change-frequency)	26
121	36 Q'aire	Job (change-frequency)	27
122	38 Q'aire	Religiosity (norm-conformity)	30
123	39 Q'aire	Change orientation (Health-practices)	31
124	40 Q'aire	Change orientation (child rearing)	32
125	41 Q'aire	Change orientation (birth control)	33
126	42 Q'aire	Change orientation (automation)	34
127	43 Q'aire	Change orientation (political leaders)	35
128	44 Q'aire	Education (aid-to-local)	36
129	45 Q'aire	Education (aid-to-federal)	37
130	46 Q'aire	Education (planning responsibility)	38
131	47 Q'aire	Change orientation (self)	39
132	48 Q'aire	Change orientation (self-role adherence)	40
133	49 Q'aire	Change orientation (self-routine job)	41
134	50 Q'aire	Personalism (familialism-parental ties)	42
135	51 Q'aire	Personalism (other orientation)	43
136	52 Q'aire	Future Orientation (planning)	44
137	53 Q'aire	Future Orientation (happiness pre-requ)	45
138	1-Q-HP	Contact group (primary - HP)	48
139	4-Q-HP	Contact (amount of HP)	53

<u>Field No.</u>	<u>Question</u>	<u>Variable Name</u>	<u>Col.</u>
140	5-Q-HP	Contact (ease of avoidance-HP)	54
141	6-Q-HP	Contact (Gain from HP)	55
142	7-Q-HP	Contact (% Income from HP)	56
143	8-Q-HP	Contact (enjoyment - HP)	57
144	9-Q-HP	Contact (alternative to HP)	58
145	10-Q-HP	Contact (amount - M.R.)	59
146	11-Q-HP	Contact (amount-emotionally ill)	60

FCC II

JAPAN (302)

4 of 5

<u>Field No.</u>	<u>Question</u>	<u>Variable Name</u>	<u>Col.</u>
<u>Card 1</u>			
1	Face Sheet	Group Number	4,5
2	37 Q'aire	Specific Occupation	22,23

Card 2

1st 24 columns SAME as Card 1 except for Columns 11-12
(i.e. Deck or Card No.)

3	Value Scale	<u>Support</u> Value	55,56
4	Value Scale	<u>Conformity</u> Value	57,58
5	Value Scale	<u>Recognition</u> Value (comparative)	59,60
6	Value Scale	<u>Independence</u> Value	61,62
7	Value Scale	<u>Benevolence</u> Value (asset)	63,64
8	Value Scale	<u>Leadership</u> Value (comparative)	65,66

Card 3

1st 24 columns SAME as Card 1 except for Columns 11-12
(i.e. Deck or Card No.)

9	1 Q'aire	<u>Contact group</u> (primary education)	25,26
10	2 Q'aire	<u>Contact group</u> (secondary education)	27,28
11	3 Q'aire	<u>Contact</u> (varieties of education)	29,30
12	8 Q'aire	Age	35,36
13	13 Q'aire	Number of children	41,42
14	14 Q'aire	Income (yearly-self, family)	43,44
15	16 Q'aire	Brothers (Do not use)	46,47
16	17 Q'aire	Sisters (Do not use)	48,49
17	None	Siblings	50,51

Card 4

1st 24 columns SAME as Card 1 except for Columns 11-12
(i.e. Deck or Card No.)

18	37 Q'aire	Occupation (specific)	28,29
19	54 Q'aire	Future Orientation (happiness possibility)	46,47



<u>Field No.</u>	<u>Question</u>	<u>Variable Name</u>	<u>Col.</u>
20	2-Q HP	Contact Group (Secondary HP)	49,50
21	3-Q-HP	Contact (Varieties of HP)	51,52
22	HP Scale	HP Total <u>Content</u> Raw Score	61,62
23	HP Scale	HP Total <u>Intensity</u> Raw Score	63,64
24	Education Scale	Trad. Educ. Total <u>Cont.</u> Raw Score	65,66
25	Education Scale	Trad. Educ. Total <u>Int.</u> Raw Score	67,68
26	Education Scale	Prog. Educ. Total <u>Cont.</u> Raw Score	69,70
27	Education Scale	Prog. Educ. Total <u>Int.</u> Raw Score	71,72

APPENDIX C

Variables, Administration Procedures, and Code Forms

C-7 Methods of Sample Selection

METHODS OF SAMPLE SELECTION

The sample was composed of five groups and was selected as follows:

1. The Special Education and Rehabilitation (SER) group. All special schools and rehabilitation facilities were identified. The Japan research director was responsible for selecting representative institutions from which to secure the sample.
2. The Education (E) group. The Japanese research director was instructed to select two or three representative schools and to administer the instruments to all teachers in the school selected.
3. The Managerial/Executive (M) group. The Japanese research director was instructed to consult with the Japanese equivalent of a United States local Chamber of Commerce in designating representative industries from which to select the sample.
4. The Laborer, white and blue collar (L) group. These respondents were to be selected from the industries represented in M, above.
5. The Government Executive group. These respondents were selected from the national government on "availability" basis. In order to make the occupational groups used in this study comparable to the groups used in other studies in the larger project (see page 6) the government executives were included in the Managerial/Executive (M) group.



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